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Moving Beyond the Flat Tax - Tax Policy Reform in the Slovak Republic

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ABSTRACT

MOVING BEYOND THE FLAT TAX: TAX POLICY REFORM IN THE SLOVAK REPUBLIC

The Slovak Republic was among the fastest growing OECD economies in the last decade. It is broadly recognised that the 2004 tax reform contributed to this success. Ten years after this fundamental reform, however, the time has come to re-evaluate some of the key characteristics of the Slovak tax system. The Slovak economy faces multiple challenges including an ageing population, a persistently high unemployment rate, significant regional disparities, skills gaps and risks related to the increasing international competition for mobile capital. Can the Slovak tax system in its present form prevail against these headwinds? The paper shows that the current tax system suffers from weaknesses that constrain its capacity to raise additional revenues and to create the conditions for inclusive and sustainable economic growth. Although measures have recently been introduced to address some of these challenges, additional tax reforms and a further strengthening of the tax administration will be needed. The OECD worked jointly with the Institute for Financial Policy (IFP) of the Slovak Ministry of Finance to provide an overall assessment of the Slovak tax system and recommendations for future tax policy reforms.

JEL classification: H2

Keywords: tax policy, tax reform, Slovak Republic

FOREWORD

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EXECUTIVE SUMMARY

In the context of its accession to the European Union (EU) and strong economic growth, the Slovak Republic adopted a fundamental tax reform in 2004 which introduced, among other changes, a single rate of 19% for personal income tax (PIT), corporate income tax (CIT) and value added tax (VAT). The main objectives of this reform were to support growth, strengthen work incentives and send positive signals to investors. While this reform has contributed to the Slovak Republic's strong economic performance, less than ten years later, weaknesses in the tax system – especially the low level of tax revenues, the relatively distortive tax mix, the system's limited progressivity, the poor levels of tax compliance and the high tax wedge for low-income workers – became apparent.

To tackle these issues, the Slovak Republic introduced a series of tax reforms in 2013. These reforms included the introduction of a second PIT bracket and rate to increase the progressivity of the PIT system as well as an increase in the statutory CIT rate to raise additional tax revenues. More recently, the Slovak Republic introduced measures to counter VAT fraud, a minimum corporate income tax as well as a targeted social security contribution (SSC) exemption for the long-term unemployed. Nevertheless, the Slovak Republic continues to face important challenges.

The country's overall tax burden remains well below the OECD average. In 2013, tax revenues in the Slovak Republic equalled 29.6% of gross domestic product (GDP), 4.5 percentage points below the unweighted OECD average of 34.1% and several percentage points below the other Visegrad Group (V4) countries (Hungary, Poland, and Czech Republic). One noteworthy aspect of the Slovak Republic's overall tax burden is the extent to which it has declined: its tax-to-GDP ratio fell from 39.6% in 1995 to 29.6% in 2013. The Slovak Republic's tax revenues will likely need to increase to match its growing financing needs arising from a persistently high unemployment rate, pervasive skills gaps and an ageing population.

The Slovak Republic will also need to rebalance its tax mix. Its current tax structure is relatively distortive, with a comparatively high reliance on direct taxes, particularly on SSCs. The paper argues that there is scope to raise more revenues from taxes but that tax increases will need to be carefully designed to limit their potentially adverse effects on growth and jobs. Additional revenues could be collected from recurrent immovable property taxes as the Slovak Republic has fairly low tax receipts from property compared to the OECD average. To raise more revenues and make taxes on immovable property more equitable, the Slovak Republic should also move forward with plans to link property taxation to market value. In addition, the Slovak Republic should consider environmentally related tax reforms to support fiscal consolidation, encourage green growth and increase neutrality in energy taxation. Finally, additional revenues could come from broadening tax bases, raising taxes on personal capital income and strengthening the tax administration in order to reduce tax non-compliance especially within the VAT and CIT.

The tax-by-tax analysis undertaken in this paper provides more details on the Slovak Republic's current tax system and sets out specific tax reform proposals. Below is a brief summary of the main findings of the paper in each tax area.

With regard to VAT, the biggest challenge does not lie in policy design but in low compliance. Exemptions and reduced VAT rates are not widespread and the standard VAT rate is close to the EU

average. However, actual VAT revenues fall short of what the standard rate would normally generate. This paper shows that low tax compliance, which is concentrated in some sectors, is a key factor behind low VAT revenues in the Slovak Republic. Significant efforts have recently been made to enhance VAT compliance but these should be carefully evaluated and further supported.

The Slovak Republic raises relatively little revenue from environmentally related taxes and the implicit tax rate on energy is low (OECD, 2014c). There is substantial scope for environmentally related tax reforms. Heating and process energy use accounts for the largest share in total energy use and CO_2-emissions in the Slovak Republic. As a result, a more harmonised tax treatment of heating and process energy use would raise substantial tax revenues and provide incentives to mitigate CO_2-emissions. This could be achieved by increasing taxes on all fuels used for heating and processing up to the standard rate per unit of energy for natural gas. *Ad quantum* excise duties could also be indexed for inflation to help prevent the decline in environmentally related tax revenues in real terms over time. Moreover, the Slovak Republic should consider eliminating the gasoline-diesel taxation differential. A gradual increase in the taxation of diesel could also be used to lower the burden from direct taxes, although there might be limited scope for such an increase in the short run without similar rate increases in neighbouring countries to prevent fuel tourism. Company cars should also be taxed more effectively within the PIT. Lastly, the support for electricity production with lignite should be eliminated. Instead, the tax on electricity consumption could be increased and the exemption of the electricity tax for households could be abolished to increase incentives for a more efficient use of electricity. The government could compensate lower income households through targeted tax or benefit measures.

Recent changes to the CIT rate have increased the tax burden on businesses. The previously low CIT rate contributed to making the Slovak Republic an attractive location for foreign businesses. While the Slovak statutory CIT rate is still relatively low compared to other OECD countries, it is now the highest among V4 countries. In this context, the Slovak Republic should avoid further CIT rate increases to remain competitive. The Slovak Republic has taken steps to fight Base Erosion and Profit Shifting (BEPS); it introduced thin-capitalisation rules for related parties in 2015 and adopted domestic transfer pricing rules to address avoidance issues arising from shifting profit from profit-making to loss-making companies as well as to companies benefitting from investment tax incentives. The Slovak government should continue its efforts to fight against international tax avoidance and evasion and to implement BEPS counter-measures in a multilateral approach as proposed under the OECD/G20 plan. The Slovak Republic should also streamline the process for granting corporate tax incentives. The recently introduced R&D tax deduction is generous and has the potential to stimulate innovation but creates new opportunities for tax planning and evasion and therefore calls for tax administration improvements. Finally, as with VAT, non-compliance is a major issue. One fifth of companies have not paid any CIT in eight consecutive years. The recently adopted minimum corporate income tax and the tightening of loss carry-forward rules might improve the situation in the short term but should be reassessed once efforts have been made to strengthen the tax administration's capacity to better enforce the CIT.

Reforms in labour taxation have also been introduced recently to make the tax system more progressive, reduce distortions between different labour contracts and lower tax wedges for low-income workers. However, the government will need to evaluate whether these reforms have achieved their objectives. PIT remains relatively low but the overall tax burden on labour income is high due to the Slovak Republic's strong reliance on SSCs. A high tax wedge on labour income tends to price low-skilled workers out of the labour market, which is problematic given the country's low-skilled labour intensive industries. The recent reform which exempts previously long-term unemployed workers for twelve months from SSCs seems to provide the right incentives at limited budgetary cost but a more structural reform to lower the costs of hiring lower-skilled workers might be needed. The introduction of a second PIT bracket has also been a step to increase the tax system's progressivity although it is likely to have remained low.

Finally, while the SSC reforms have reduced distortions between different types of labour arrangements, a substantial gap remains between the effective tax burdens of regular and self-employed workers.

Finally, the paper shows that the taxation of personal capital income is relatively low in the Slovak Republic. Increasing taxes on personal capital income would help raise additional revenues as well as enhance progressivity as richer households typically earn more capital income. The Slovak Republic may consider replacing the health contributions on dividend income by introducing a standard tax on dividends which would enhance progressivity and lower compliance costs. Other tax privileges for savings could be phased out. In particular, the rationale for maintaining the tax exemption on capital gains from property sales after five years of ownership is weak as it creates distortions by encouraging individuals to invest in real estate over other types of assets and investments.

Chapter 1

THE TAX SYSTEM IN THE SLOVAK REPUBLIC: SETTING THE STAGE

In 2004, the Slovak Republic introduced a fundamental tax reform which set the rates for the personal income tax (PIT), the corporate income tax (CIT) and the value-added tax (VAT) all equal to 19%. With this reform, the Slovak Republic became the first OECD country to have a flat PIT. The tax reform also broadened the PIT base by eliminating almost all tax reliefs, but increased the basic allowance to offset the tax rate increase for low-income workers. At the same time, the Slovak government reduced social assistance benefits and shifted the tax burden from direct to indirect taxation (Box 1).

The 2004 tax reform succeeded in making the Slovak Republic's tax system simpler and more transparent. It strengthened incentives to work, invest and set up a business. It also reduced distortions in the allocation of capital and, as a result of considerable base broadening, prevented further efficiency losses. However, the tax system that was put in place also had a number of weaknesses which became apparent over time, in particular the low amounts of tax revenues it generated, the poor levels of tax compliance as a result of a weak tax administration, and the high social security contribution (SSC) rates.

Box 1. The 2004 Flat Tax Reform

In 2004, the Slovak government introduced a comprehensive tax reform aimed at attracting more foreign investment, improving labour market flexibility and strengthening work incentives. The reform radically changed the tax system by making the tax rates of PIT, CIT and VAT all equal to 19%. Before the tax reform, the PIT system had five income brackets, with marginal tax rates varying from 10% to 38%. The CIT rate was at 25% and the VAT had a standard rate of 20% and a reduced rate of 14%. With this reform, the Slovak Republic became the first OECD country to have a flat PIT, although some non-OECD countries in Central and Eastern Europe had already introduced such a tax.

Together with these changes in tax rates, many exceptions, exemptions and special regimes were eliminated. The basic allowance in the PIT was increased, however, to maintain some degree of progressivity and to offset the increase in marginal tax rates for low-income households. The 2004 tax reform did not significantly increase overall (post tax and transfer) income inequality.

The tax reform turned out to be broadly revenue neutral as a result of the shift from direct to indirect taxation. A comparison of the estimated tax revenues that would have been collected in 2004 in the absence of reform and the revenues actually collected suggests that the decline in PIT and CIT revenues was almost entirely compensated by the increase in VAT and excise revenues.

The reform succeeded in making the tax system simpler and in enhancing economic efficiency. In addition, the introduction of the flat tax contributed to preserving the attractiveness of the Slovak Republic as a business location for domestic and foreign investors.

However, the tax system continued to suffer from a number of weaknesses. Because SSCs remained high, the overall tax burden on labour remained substantial. The tax wedge for low-income workers was particularly burdensome in light of the low skills of a large part of the labour force. The presence of high SSCs means that there continued to be gains from income shifting between capital and labour income. In addition, various elements of the 2004 reform tended to change disposable income in favour of more affluent households including the move to a single PIT rate and the shift from direct to indirect taxation.

Ten years after this fundamental tax reform, this paper aims at evaluating some of the key characteristics of the Slovak tax system. The paper also examines the more recent reforms that the Slovak

government has already implemented to address some of the weaknesses of the tax system (Box 2). Among these reforms were the introduction of a second PIT bracket and rate to increase the progressivity of the PIT system as well as an increase in the statutory CIT rate to raise additional tax revenues. More recently, the Slovak Republic also introduced measures to counter VAT fraud, a minimum corporate income as well as a targeted SSC exemption for the long-term unemployed.

Box 2. The main tax reforms introduced in 2013 and 2014

Corporate income tax

- The CIT rate was increased from 19% to 23% in January 2013.
- In 2014, the CIT rate was lowered to 22%.
- In 2014, a minimum corporate income tax was introduced. The minimum tax is either EUR 480, EUR 960 or EUR 2,880, depending on the company's turnover and whether it is registered for VAT.
- In 2014, tax loss carry forward rules were tightened. Under the new rule, tax losses may only be carried forward for a period of up to four years (as opposed to seven previously).

Personal income tax

- A second tax bracket and tax rate of 25% was introduced in January 2013. This rate is applicable to taxable income exceeding 176.8 times the valid subsistence minimum (for 2013 the threshold amounts to EUR 34,401.74 a year). Taxable income up to that threshold is taxed at a rate of 19%.
- As of 2013, the conditions to be entitled to the spouse allowance were made more restrictive. The spouse allowance is limited to a spouse who takes care (not necessarily personally) of a child up to 3 years old (or 6 years old if the child is disabled), or who receives a nursing allowance or who is unemployed or disabled.
- As of 2013, the possibility of deducting 40% of expenses without any bookkeeping for self-employed workers was limited to EUR 5,040 per year or EUR 420 per month.

Social security contributions

- As of January 2013, the assessment base to calculate SSCs for self-employed workers was adjusted by increasing its minimum level. It is also gradually being broadened by reducing the coefficient that previously lowered the base.
- In January 2013, SSCs were introduced for temporary workers to match those of regular employees.
- In January 2013, the SSC ceiling was raised for all employment types.
- In November 2013, an SSC exemption was introduced for the low-paid long-term unemployed for the first 12 months of employment.
- As of January 2014, the health contribution rate from dividend income increased from 10% to 14%

Value added tax

- Many VAT counter-fraud measures were adopted as part of the 2012-2016 *Action Plan to Combat Tax Fraud*. Key measures adopted in the first and second stages aimed at cleaning up the VAT registry as well as fighting internal corruption and detecting major tax fraud cases. Efforts in the third stage of the Action Plan will focus on improving tax collection, in particular through a better collection and centralisation of information and the introduction of an Electronic Registry of Insolvent Entities.

In order to set the stage for a more detailed discussion in Chapter 2, Chapter 1 starts by giving a brief overview of the Slovak Republic's economic situation and outlook. A critical question in this paper is whether the Slovak Republic's current tax system and recent reforms are adapted to the economic

challenges that the country faces. The chapter then describes the evolution of the overall tax burden and debt levels over time. Finally, the chapter examines the structure of the tax burden in the Slovak Republic and the progressive decline of implicit tax rates.

1.1 Economic context and outlook

The Slovak Republic has been one of the most dynamic economies in the euro area. Over the past decade, it has continued to converge towards the living standards of advanced OECD countries at a fast pace. Its gross domestic product (GDP) per capita growth was the highest in the OECD between 2001 and 2011. The income gap relative to the upper half of OECD countries narrowed from over 60% in the early 2000s to close to 40% (OECD, 2013c).

With the financial crisis, the Slovak Republic experienced one of the steepest declines in real GDP but also one of the fastest recoveries among OECD countries. The evolution of the Slovak economy mirrored developments in world trade as the country is highly dependent on exports. GDP contracted by 5.3 % in 2009 but rapidly picked up again, with GDP growth reaching 4.8% in 2010. Growth slowed down again between 2010 and 2013. In 2014, economic activity gathered pace and growth is projected to accelerate in 2015-2016 thanks to stronger export markets, investment and domestic demand.

Box 3. The Slovak Republic's main economic challenges

Support robust growth: Despite a fast recovery from the crisis, the Slovak Republic's economic growth is projected to remain below pre-crisis levels. The Slovak Republic needs to strengthen its domestic production base and expand its sources of growth.

Maintain fiscal consolidation: The general government deficit reached 2.6% of GDP in 2013 and is expected to remain below 3% of GDP in the coming years. Nevertheless, it is subject to long-term risks, especially as the costs related to ageing are expected to rise.

Boost employment, particularly long-term and youth employment: The Slovak labour market was hit hard by the crisis: aggregate unemployment, youth unemployment and particularly low-skilled and long-term unemployment are among the highest in the OECD. Improving workers' skills levels and labour market outcomes will require broad-based education and up-skilling, labour market and tax reforms.

Support new drivers of growth: The Slovak Republic's economy has relied to a large extent on foreign investment in low-value added, wage-cost sensitive and export-oriented activities. The objective for the Slovak Republic will be to diversify and upgrade its supply capacity which will ultimately require investments in skills and innovation.

Support inclusive growth: Although inequality remains below OECD average levels, preventing inequalities from rising will be an important challenge in the Slovak Republic. This is in part due to the relatively high and rising unemployment figures, particularly long-term, low-skilled and youth unemployment, which could lead to an increase in inequalities. Also the regional inequality in the Slovak Republic, which is amongst the highest of OECD countries (OECD, 2014c), poses many challenges.

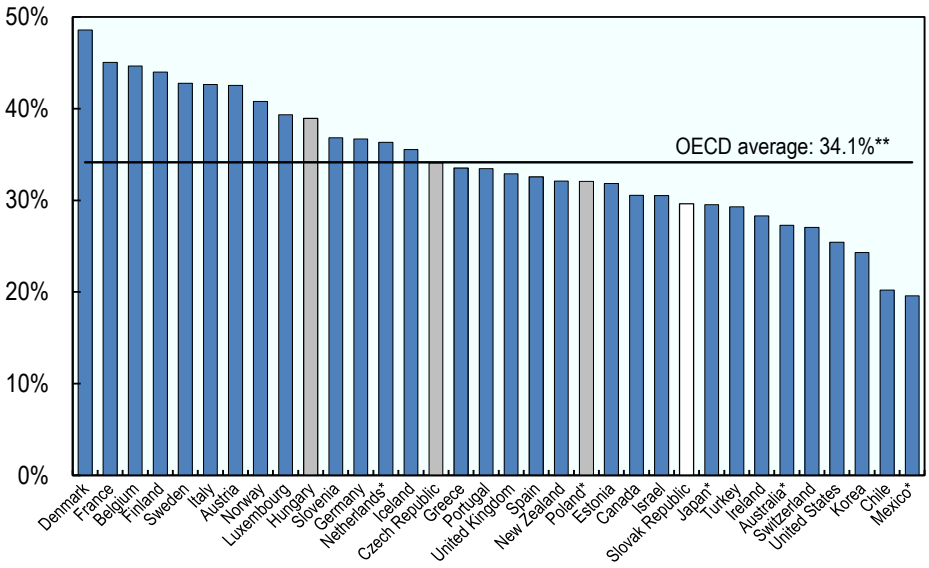
However, the Slovak Republic is faced with a number of economic challenges which will need to be addressed in order to ensure durable economic growth which benefits everyone in the long run. The Slovak Republic faces an ageing population, a persistently high unemployment rate, a skills deficit and, as the economy heavily relies on the inflow of foreign direct investment, an increasing vulnerability to the intensifying global competition for mobile capital. In addition, the fiscal room gained in the run-up to the euro accession quickly narrowed during the crisis, and public debt has increased considerably since 2008; the Slovak Republic exited from the Excessive Deficit Procedure after several years of fiscal consolidation in 2013. Box 3 gives an overview of the Slovak Republic's main economic challenges.

1.2 Evolution of the tax burden and debt level

The Slovak Republic's tax burden has sharply declined and is now well below the OECD average

The Slovak Republic's overall tax burden is well below the OECD average. In 2013, tax revenues in the Slovak Republic equalled 29.6% of GDP, 4.5 percentage points below the unweighted OECD average of 34.1% and several percentage points below the other Visegrad Group (V4) countries (Hungary, Poland, and Czech Republic) (Figure 1). Box 4 nevertheless explains that cross-country comparisons of tax-to-GDP ratios should be interpreted with caution.

Figure 1. Tax-to-GDP ratios, OECD countries 2013



Source: OECD Revenue Statistics (2014).

Notes: * Indicates that 2012 figures are used because 2013 figures are not available. ** Calculated by applying the unweighted average percentage change for 2013 in the 29 countries providing data for that year to the overall average tax to GDP ratio in 2012.

Box 4. Factors influencing the international comparison of the Slovak tax-to-GDP ratio

The following factors contribute to a comparatively lower tax-to-GDP ratio in the Slovak Republic.

The taxation of social benefits. In some countries (e.g., Scandinavian countries), social benefits are generally taxable, and thus the pre-tax amounts paid to citizens are higher than in other countries where benefits are not taxable and citizens receive the same after-tax amounts. As a result, countries with taxable social benefits will have higher tax-to-GDP ratios (and also higher expenditure-to-GDP ratios) than those with tax-free social benefits, even if the after-tax benefit amounts are equal. The Slovak Republic is one of the OECD countries where direct taxation of benefit income is the lowest (OECD, 2012a). This pushes down the Slovak Republic's tax-to-GDP ratio relative to most other countries.

Non-tax compulsory payments (NTCPs). As a number of other OECD countries, the Slovak Republic levies non-tax compulsory payments. These payments either increase the employer's labour costs or reduce the employee's net take-home pay in the same way as taxes but do not qualify as taxes or social security contributions. Therefore, NTCPs do not affect a country's tax-to-GDP ratio (Brys, 2011).

The exemption of dividends. The Slovak Republic does not tax dividends under the PIT as of 2004. Hence revenues from state-owned enterprises come only in the form of non-tax revenues.

Tax-to-GDP data over time shows that the Slovak Republic's overall tax burden experienced a continuous decline between 1995 and 2012. Figure 2 shows a general downward trend in tax-to-GDP ratios among V4 countries since the mid-1990s but this decline was more pronounced in the Slovak Republic, where the tax-to-GDP ratio fell from 39.6% in 1995 to 28.1% in 2012. Several factors help explain the decline in the Slovak Republic's tax-to-GDP ratio:

- A decline in statutory tax rates. There were substantial reductions in the top PIT rate, the standard VAT rate and the CIT rate, in particular as part of the 2004 tax reform. However, the short-term impact of the 2004 tax reform on government revenues was quite modest (Krajčír and Ódor, 2005). Base broadening measures partly offset the revenue effects of tax rate reductions.

- Changes in the relative composition of GDP, possibly partly driven by tax reforms. The share of compensation of employees[1], which is a proxy for the PIT and SSC base, in GDP decreased from 39.2% in 1995 to 37.2% in 2012 while the share of gross operating surplus, which is a proxy for the CIT base, in GDP increased from 51.2% to 54.3% over the same period. Since the combined tax rate of PIT and SSC is higher than the CIT rate, this development contributed to a decrease in the tax-to-GDP ratio.

- The erosion of real revenues from excise duties and property taxes because these taxes and/ or their tax bases were not sufficiently indexed for inflation and because revenues did not increase with real economic growth.

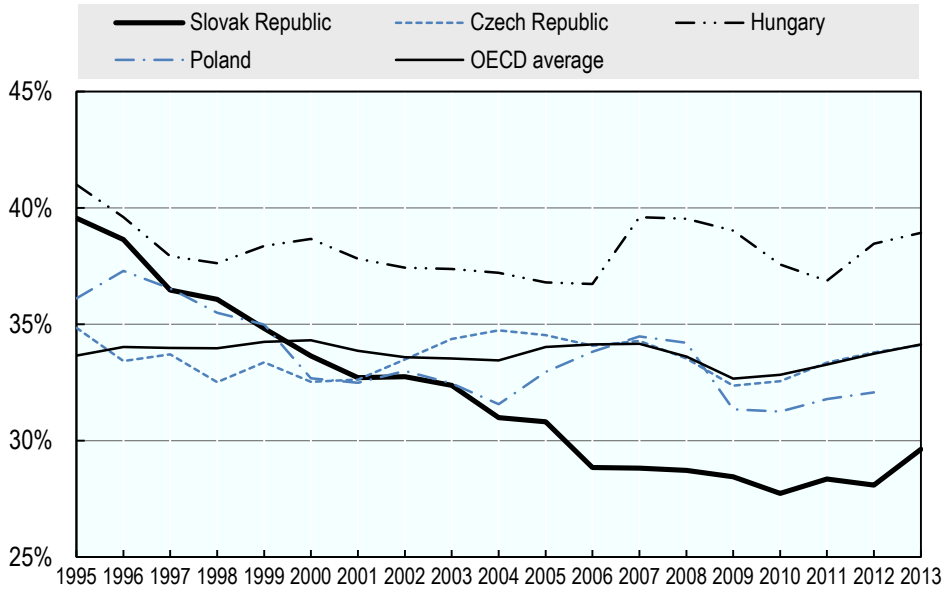
- The accession to the EU in 2004 which abolished import duties and charges which amounted on average to 2.4% of GDP in 1995-2000 and 1.3% of GDP just before joining the EU.

- The pension reform implemented in 2005 which allowed individuals to redirect 9% of their gross wages from the public pay-as-you-go (PAYG) system towards private pension funds (second pension pillar). This decreased the rate of employer SSCs by 9 percentage points. Overall, the introduction of the second pillar lowered government revenues on average by 1.2% of GDP in the period 2006-2011. However, as of September 2012, the pension sharing scheme was modified again: the compulsory contribution rate to the second pension pillar was reduced to 4% and the employers' SSC rate increased from 26.2% to 31.2%.

- Widening VAT, PIT and CIT gaps as a result of increased tax evasion and tax planning behaviours by households and businesses and the difficulties faced by the tax administration to tackle these issues.

[1] Compensation of employees is defined as the total remuneration, in cash or in kind, payable by an enterprise to an employee in return for work done by the latter during the accounting period.

Figure 2. Tax-to-GDP ratios, the Slovak Republic and other V4 countries, 1995-2013



Source: OECD Revenue Statistics (2014).

However, after a period of continuous decline, data for 2013 shows an increase of about 1.5 percentage points in the Slovak Republic's tax-to-GDP ratio. As explained in more detail further, the main factors that have driven this recent increase in tax revenues have been higher VAT revenues as a result of a more efficient administration of the tax system, fiscal consolidation measures, and the fact that part of the pension contributions which previously had to be paid to a private pension fund are now paid to the government.

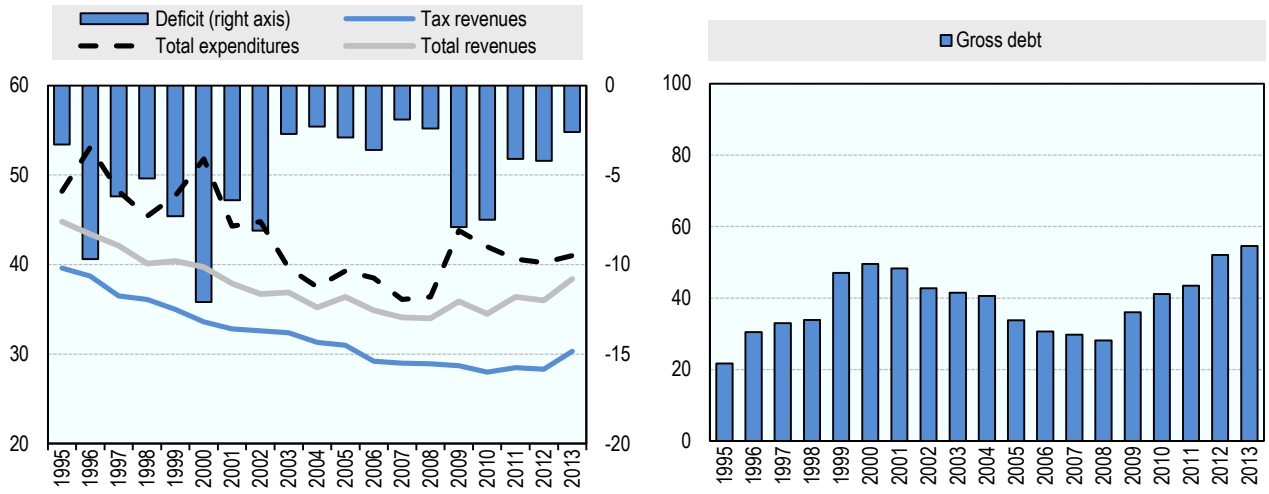
The Slovak Republic's fiscal position deteriorated with the crisis and is subject to longer-term pressures

Prior to the financial and economic crisis, the decrease in tax revenues was accompanied by a significant reduction in public expenditures. Therefore, the budget deficit did not rise during that period. In fact, between 2000 and 2008, public finances improved markedly with the budget deficit dropping from levels as high as 12.1% of GDP in 2000 to 1.9% in 2007 (Figure 3, left-hand panel). Reflecting positive developments in the budget balance, gross debt as a share of GDP also declined noticeably, reaching 28.2% of GDP in 2008 (Figure 3, right-hand panel).

As in most OECD countries, however, the crisis and its aftermath generated significant fiscal consolidation needs and the debt level has increased sharply since then. The deficit increased to 8% of GDP in 2009 but narrowed again gradually to 2.6% of GDP in 2013[2] thanks to substantial consolidation efforts. Public debt reached 54.6% of GDP in 2013.

[2] Based on preliminary Eurostat deficit and debt data (April 2014).

Figure 3. Public expenditures, tax revenues, budget balance and gross debt (% of GDP), the Slovak Republic, 1995-2013



Source: Eurostat

In the longer run, the Slovak Republic's rapidly ageing population could make fiscal consolidation more challenging. As the European Commission (2012, 2013b) noted, the Slovak Republic faces long-term risks, particularly related to the budgetary costs of ageing. The EC Report estimated the impact of ageing on debt and concluded that, under a "no policy change" assumption, debt would increase from 55.9% in 2014 to 61.9% of GDP in 2020 and reach 91.6% in 2030. Although the Report does not take into account the recent pension reforms which should improve the country's long-term debt sustainability (Box 5), it is clear that cutting expenditures and/or increasing tax revenues will be necessary in order to avoid debt increases in the medium to long run.

Box 5. Main changes to the pension system in 2012 and 2013

Changes to the pension system in 2012 are expected to reduce pension expenditures by almost 3.0% of GDP in 2060 and improve the Slovak Republic's fiscal stance. The main elements of the 2012 and 2013 pension reforms included:

Increasing the sustainability of the PAYG pillar:

- Linking the retirement age to the life expectancy.
- Changes to the indexation mechanism of existing pensions – a switch to inflation-based indexation starting from 2018. Between 2014 and 2017, the weight of inflation in the total pension index will increase by 10 percent each year while the weight of nominal wage growth will decrease by 10 percentage points each year.
- Increase in the maximum assessment base for pension contributions from 4 to 5 times the average wage.

Changes to the fully-funded pillar:

- Contributions to the second pillar have been reduced from 9% to 4% of the assessment base. From 2017 onwards, this contribution rate will gradually grow by 0.25 percentage points per year until a rate of 6% is reached.
- The entry into the second pension pillar is voluntary for new labour market entrants.

- The minimum participation period in the second pillar has been reduced.

Changes in the social security scheme of the police and armed forces (as of 2013):

- Increase in the minimum contribution period and in the maximum replacement rate
- Increase in the minimum service years to be entitled to temporary pension benefits
- The contribution rate to the pension system of armed forces has been increased from 21% to 24% for the employer and from 9% to 11% for the employee
- Unification of the indexation mechanism with the universal pension system (effective as of 2018)

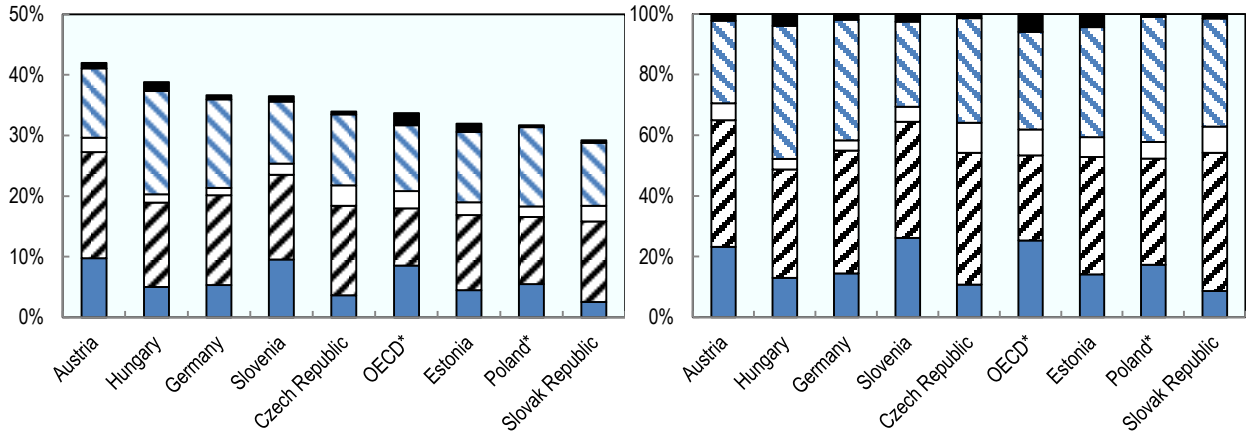
1.3 The tax mix

The Slovak Republic collects most of its tax revenues from SSCs and VAT

As shown in Figure 4, the Slovak Republic's tax-to-GDP ratio and tax mix diverge from OECD patterns. In particular, the Slovak Republic relies substantially more on SSCs than other OECD countries. In 2013, revenues from SSCs amounted to 13.3% of GDP against an average of 9.0% in the OECD (these figures do not include non-tax compulsory payments in the Slovak Republic which amounted to 0.6% of GDP). Revenues from PIT, on the other hand, were considerably below the OECD average, accounting for only 2.5% of GDP. Taxes on goods and services as a share of GDP were somewhat below the OECD average but constitute the Slovak Republic's second largest source of tax revenues. CIT revenues accounted for about 2.6% of GDP, which is close to the OECD average of 2.9%.

The Slovak Republic's tax structure is similar to tax mixes in V4 countries, however. Tax mixes in other V4 countries are also characterised by a high reliance on SSCs and VAT and more limited revenues from PIT as a share of total tax receipts in comparison to the OECD average (Figure 4). Some differences nevertheless exist between the Slovak Republic and other V4 countries. For instance, CIT revenues account for a greater share of total tax revenues in the Slovak Republic than in Poland or Hungary.

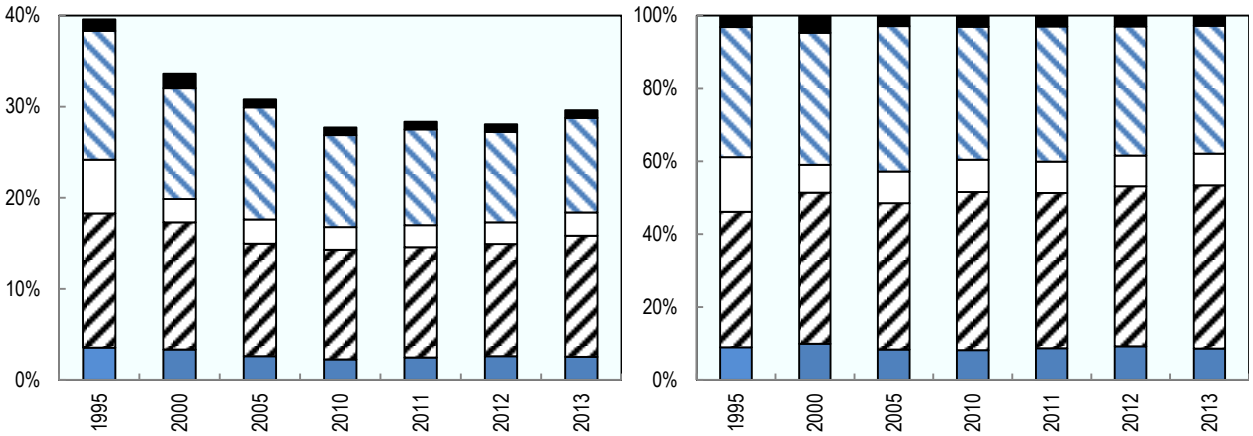
Figure 4. Tax-to-GDP ratio by category and tax mix as a percentage of total tax revenues, the Slovak Republic and selected countries, 2013



Source: OECD Revenue Statistics (2014). * Indicates that 2012 figures are used because 2013 figures are not available.

As Figure 5 illustrates, compared to 2005, the tax-to-GDP ratio has fallen for each major category of tax. Consumption taxes, SSCs, and the CIT recorded the sharpest declines. The right-hand panel in Figure 5 shows the changes over time in the revenues from each category of tax as a percentage of total tax revenues.

Figure 5. Tax-to-GDP ratio by category and tax mix as a percentage of total tax revenues, the Slovak Republic, 1995-2013



Source: OECD Revenue Statistics (2014)

The Slovak Republic's tax mix is relatively distortive. According to the OECD *Tax Policy Reform and Economic Growth* study (OECD, 2010), taxes can be grouped based on their potentially distortive effects on growth. The study shows that less distortive taxes include consumption taxes, recurrent property taxes, and real estate and inheritance taxes, while corporate income taxes, personal income taxes, social security contributions, and taxes on financial and capital transactions tend to be more distortive. In the Slovak Republic, revenues from less distortive taxes account for below 40% of total tax revenues but this share is similar to the one observed in other V4 countries.

The Slovak Republic does not collect any revenues from recurrent taxes on net wealth, inheritance and gift taxes or taxes on financial and capital transactions. Transaction taxes – unlike recurrent real property taxes (see below) – are considered as detrimental to growth and should generally be avoided. A real estate transfer tax, for example, increases the costs of relocation and likely decreases labour mobility. However, taxes such as inheritance taxes do not negatively affect growth.

Revenues from property taxes are particularly low

Figure 5 shows that revenues from property taxes are particularly low. The Slovak Republic collects revenues from recurrent taxes on immovable property only. In 2013, property tax revenues amounted to 0.45% of GDP, which was similar to the level in the Czech Republic (about 0.47%), but less than in Hungary (1.2%) and in Poland (1.3% in 2012) and substantially less than in the OECD on average (about 1.8% in 2011).

There is a strong case for strengthening the role of taxes on immovable property. Key arguments include the immobility of the tax base and the common under-taxation of property, which often leads to over-investment in immovable property and under-investment in other forms of savings. With regard to the specific form of property taxes, recurrent taxes are less distortive than transaction taxes (OECD, 2010). According to Norregaard (2013), it would be feasible in many developed countries to increase revenues from property taxes, and in particular recurrent taxes on immovable property, to about 2% of GDP or more.

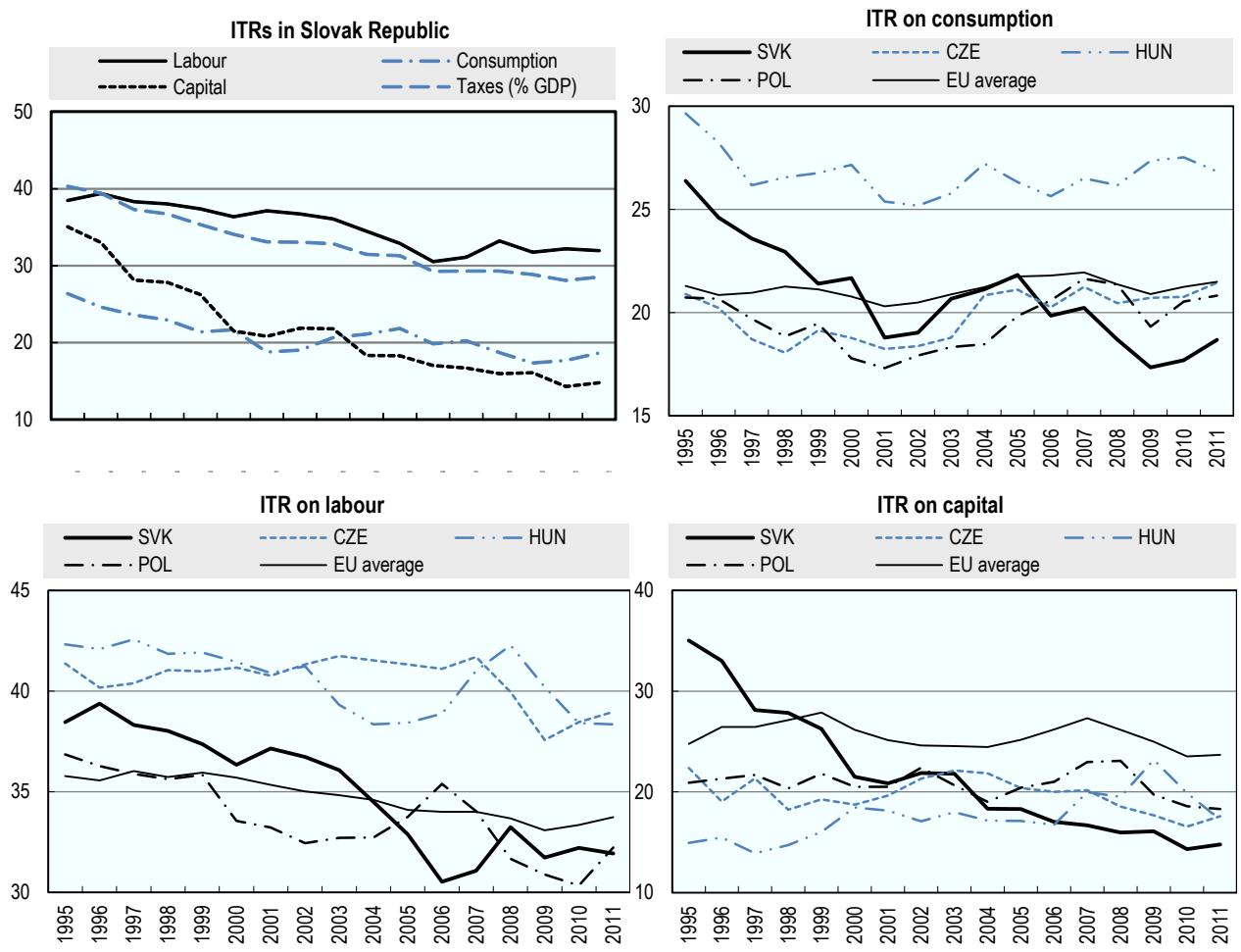
To raise more revenues from recurrent taxes on immovable property and make the system more equitable, the Slovak Republic should also move forward with plans to levy the tax on a tax base which reflects the market value of the property as opposed to the number of square metres. This would require a better land registry. The Slovak Republic could also consider options to address the political obstacles that come with raising taxes on immovable property. For instance, tax increases could be introduced gradually. A minimum amount of the property value could also be exempted or provisions could be adopted to support individuals who face difficulties in paying the tax.

Implicit tax rates have generally been declining

The comparison of taxes as a share of GDP might only give limited information on the effective tax burden imposed on different economic functions (consumption, labour, capital). For instance, a high share of labour taxes in GDP may be due to different factors. It may reflect high PIT and SCCs but it may also be the consequence of a relatively large share of labour income in GDP. This section therefore complements the tax-to-GDP decomposition with information on implicit tax rates (ITRs). ITRs express aggregate tax revenues as a share of the (maximum possible) tax base. The ITR on consumption is calculated as a ratio of revenues from consumption taxes to final domestic household expenditure; the ITR on labour is calculated as a ratio of labour income tax revenues to total compensation of employees; and the ITR on capital is the ratio of corporate income tax revenues, revenues from the taxes levied on self-employed income, and revenues from taxes on capital gains (in addition to the revenues from some other taxes) to net operating surplus of corporations, net mixed income of self-employed, and certain elements of property income.

As in other countries, the taxation of labour is significantly higher than the taxation on consumption and capital although it has declined over the 1995-2011 period (Figure 6). Indeed, the ITR on labour dropped from 38% to 32% while it fell by about 2 percentage points in other EU countries. The ITR on consumption decreased from 26% to about 19% while it stayed roughly constant in other EU countries. Finally the ITR on capital dropped from 35% to 15% while it remained relatively stable in other countries.

Figure 6. ITRs in the Slovak Republic (in %), V4 countries and the EU, 1995-2011



Source: European Commission (2013a, 2014a)

Chapter 2

INDIVIDUAL TAX DESIGN IN THE SLOVAK REPUBLIC

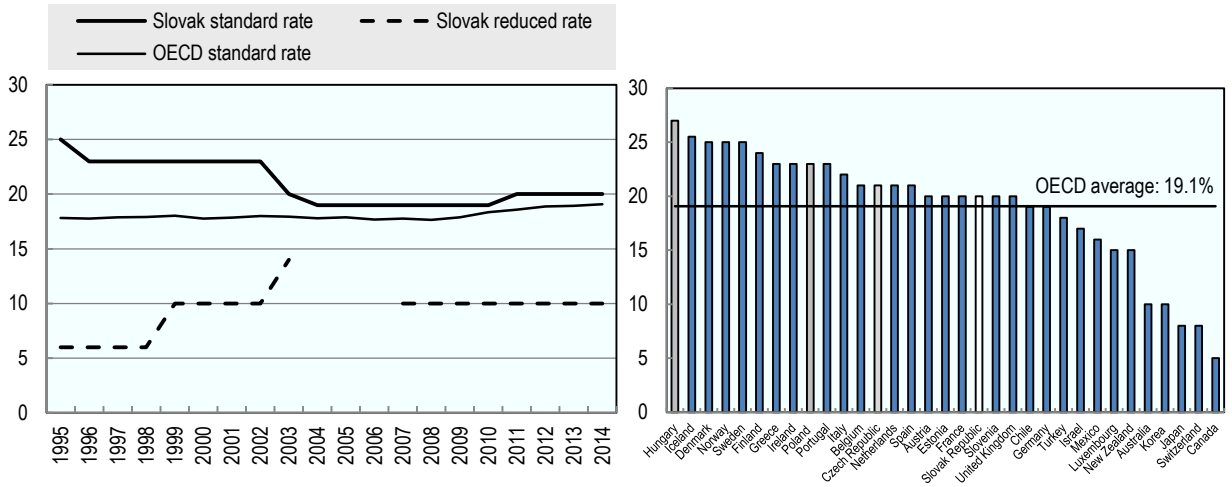
Chapter 2 provides a tax-by-tax assessment of the Slovak tax system. It examines value-added tax (VAT), environmentally related taxes, corporate income tax (CIT) and labour taxes. The main focus of the VAT section is on the distributional impacts of the VAT system and the low levels of VAT compliance. The environmentally related tax section discusses how the tax system could be made "greener". The CIT section concentrates on the recent changes in the tax rate, tax incentives and non-compliance. The final section of the chapter addresses labour taxation and its main features including the relatively low revenues from personal income tax (PIT), the high level of social security contributions (SSCs), the favourable tax treatment of families, changes in progressivity and the government response to tax-induced distortions between different labour arrangements. The tax treatment of different forms of capital income and their impact on individuals' savings behaviours is also examined.

2.1 Value added tax

The Slovak Republic has a standard VAT rate close to the OECD average levied on a broad base

From 2004 to 2010, the standard VAT rate in the Slovak Republic was set at 19%. It was raised to 20% as of 2011. It is currently slightly above the OECD average rate of 19.1% but below the averages of European OECD countries (21.4%) and other Visegrad Group (V4) countries (23.7%) (Figure 7, right-hand panel). The scope for raising the standard VAT rate in the future may be limited given the Slovak Republic's high compliance gap (see below).

Figure 7. VAT rates (in %) in the Slovak Republic and the OECD



Source: OECD Tax Database (2014), IFP

The Slovak Republic had a reduced VAT rate of 14% which was abolished in 2004. A reduced rate of 10% was re-introduced in 2007 (Figure 7, left-hand panel). Nevertheless, the use of the reduced VAT rate is relatively limited, applying only to some merit goods (e.g., books and sheet music) and some necessities (e.g., medical supplies). In fact, the Slovak Republic is among the few OECD countries with a very limited number of products subject to the reduced VAT rate. The use of exemptions is generally in line with other

EU countries and most other OECD countries. The comparison of VAT systems in V4 countries shows that the Slovak Republic has the broadest VAT base while Poland has the narrowest base (Table 1).

Table 1. VAT rates in V4 countries, 2014

	Tax rates (%)		Supplies subject to reduced rate(s)
	standard	reduced	
Slovak Republic	20	10	• Pharmaceutical and certain other medical products • Books • Sheet music
Czech Republic	21	15	• Foodstuffs and non-alcoholic beverages • Supply of water • Transport of passengers • Books newspapers • Pharmaceutical products • Admission to shows, theatres, circuses etc. • Provision, construction, renovation and alteration of housing • Supply of services by writers and composers
Hungary	27	5	• Pharmaceutical products • Medical equipment and aids • Books and newspapers • District heating • Instrumental music
		18	• Milk, dairy products, cereals, flour • Hotel accommodation • Entrance to open air festivals
Poland	23	5	• Foodstuffs and non-alcoholic beverages • Books and newspapers
		8	• Supply of water • Pharmaceutical products and medical equipment • Transport of passengers • Admission to shows, theatres, circuses etc. • Reception of radio and television • Provision, construction, renovation and alteration of housing • Hotel accommodation • Supply of services by writers and composers • Admission to sporting events, use of sporting facilities

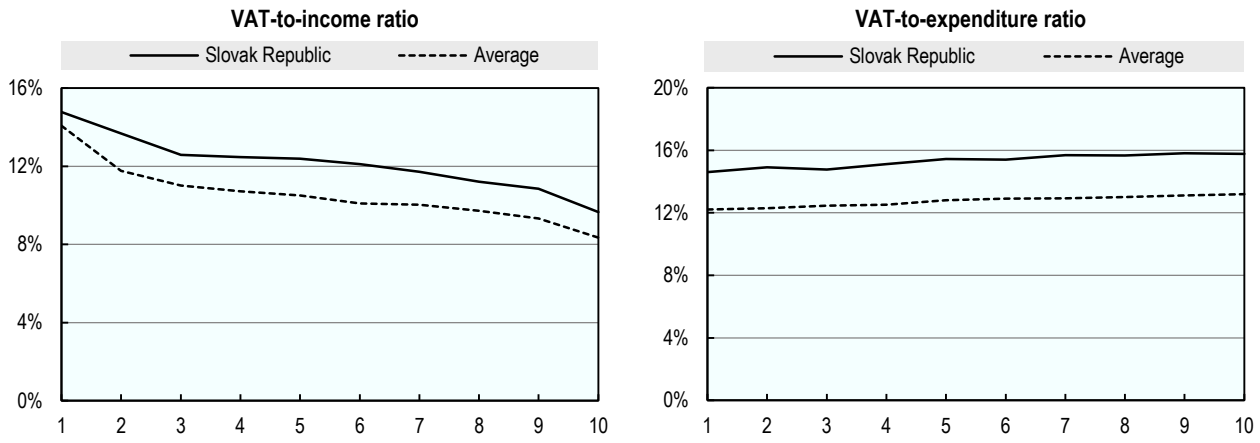
Source: Taxes in Europe Database. Note: The list of supplies subject to reduced rate is non-exhaustive.

The VAT system and limited use of reduced rates does not significantly affect the distribution of income

An important concern regarding VAT systems is related to their distributional effects. This section analyses this question based on results from consumption tax micro-simulation models developed by the OECD (OECD and Korea Institute of Public Finance, 2014). The left-hand panel of Figure 8 shows average VAT payments as a share of disposable income across 20 OECD countries as well as in the Slovak Republic. The graph suggests that VAT payments are regressive, on average, with the VAT burden as a share of disposable income decreasing with income. However, these results are driven by savings behaviour. Savings rates tend to increase with income, meaning that higher income households will tend to have proportionately less of their income subject to VAT in the current year and therefore pay less VAT as a proportion of income in the current year than poorer households. In effect, such an approach ignores the

fact that when these savings are consumed in the future, they will incur VAT. The right-hand panel of Figure 8 shows VAT payments as a share of pre-tax expenditure across income deciles. This approach removes the influence of borrowing and saving from the analysis, thereby providing a better picture of the lifetime impact of the VAT. In this case, the graph shows a slight progressive pattern, challenging the common perception that VAT is regressive. The slight progressivity is explained by the fact that higher income households tend to spend a greater share of their total expenditure on standard rated goods and services rather than on reduced rated or exempted goods and services. In both cases, patterns in the Slovak Republic are similar to average trends in the OECD.

Figure 8. Effective VAT rate across income deciles as % of disposable income and pre-tax expenditure in a selection of OECD countries[3] and the Slovak Republic



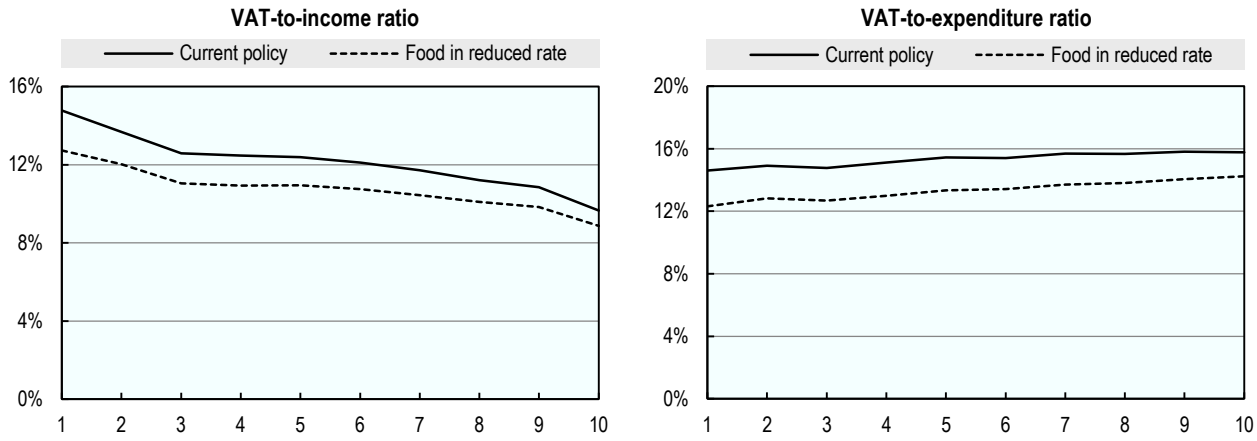
Source: OECD consumption tax micro-simulation model

The effectiveness of reduced VAT rates in redistributing income towards poor households can also be examined. Results from the OECD micro-simulation exercise show that the combined effect of all reduced VAT rates in the Slovak Republic is relatively proportional. As a whole, reduced VAT rates provide a greater benefit in aggregate terms to richer households than poorer households, but a similar benefit to all households in relative terms. The reduced rate for pharmaceuticals is progressive as it provides a greater proportional benefit to poorer households than richer households but the reduced rate on books is regressive as it provides both a greater aggregate and proportional benefit to richer households. However, in both cases, goods and services subject to reduced VAT rates represent a very small share of total expenditure.

Micro-simulation can finally be used to estimate the impacts of a hypothetical tax reform such as the introduction of a reduced VAT rate on food and non-alcoholic beverages. As shown in Figure 9, the introduction of such a reduced rate in the Slovak Republic would generate a slightly more pronounced decrease in VAT-to-income and VAT-to-expenditure ratios for lower income households. In other words, the effective VAT rate paid by poorer households would drop more than the effective rate paid by richer households.

[3] The model used includes data for (with year of data in parenthesis): New Zealand (2013); Chile and Korea (2012); Belgium, the Czech Republic, Estonia, Greece, Hungary, Italy, Luxembourg, Poland, the Slovak Republic, Slovenia, Spain; Turkey and the United Kingdom (2010); Austria (2009); Germany (2008); Ireland and the Netherlands (2004).

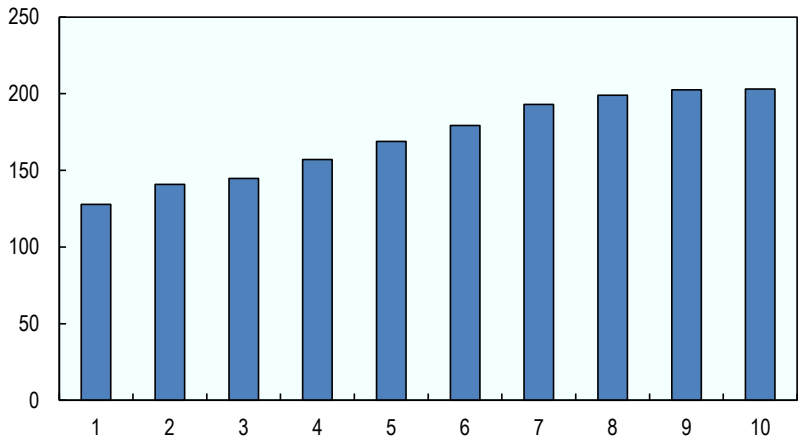
Figure 9. VAT across deciles, the Slovak Republic, 2010



Source: OECD consumption tax micro-simulation model

In absolute terms, however, the analysis shows that individuals in the lowest decile would benefit on average by EUR 128 annually, while individuals in the highest decile would benefit, on average, by EUR 203 (Figure 10). Thus, while a reduced rate on food would have a small progressive impact, it is a poorly targeted reform as richer households would gain significantly more in absolute terms. More generally, this suggests that reduced VAT rates are not the most effective way to compensate poorer households and that progressivity should be enhanced through other reforms. Hence, in the future, the Slovak Republic should maintain its limited use of exemptions and reduced VAT rates.

Figure 10. Annual benefit from a hypothetical tax reform in the Slovak Republic across income deciles (EUR)



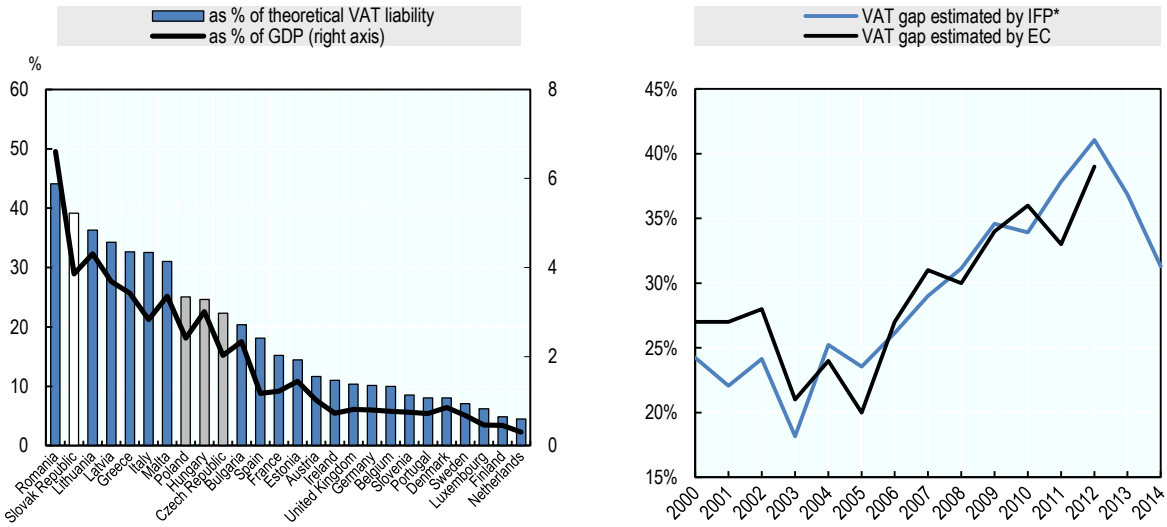
Source: OECD consumption tax micro-simulation model

The Slovak Republic has a high VAT compliance gap

Even if there are methodological issues with VAT gap analysis (Box 6), the Slovak Republic's VAT gap, which measures the difference between the expected VAT receipts if all the VAT due is collected and the VAT actually collected, is high compared to other EU countries. According to a study by Barbone *et al.* (2014), it reached 39% of potential VAT revenues or 3.9% of GDP in 2012 which were respectively the

second and the third largest VAT gaps in the EU. Furthermore, the VAT gap has been progressively widening, increasing by about 12 percentage points over the period of 2000-2012 (Figure 11, right-hand panel). Indeed, bringing the efficiency of VAT revenue collection up to the OECD average could raise significant additional tax revenues in the Slovak Republic.

Figure 11. VAT gap (in % of GDP) in EU countries in 2012 and in the Slovak Republic, 2000-2014



Source: Barbone et al. (2014) and IFP calculations[4]

Box 6. VAT gap estimation

The VAT gap is estimated as the difference between the theoretical VAT liability and the actual collections of VAT. The calculations of the theoretical VAT liability done by Reckon (2009) and CASE and CPB (2012) used a top-down approach. The top-down approach uses national accounts figures as a starting point and calculates two elements of the theoretical VAT liability: the VAT paid by final consumers and the VAT paid by producers. Final consumers pay VAT on purchases of taxable goods and services, while producers pay VAT on inputs when producing non-taxable or exempt goods and services. The quality of such estimates thus depends on the completeness of statistical data, including estimates of the size of the undeclared economy conducted by statistical offices.

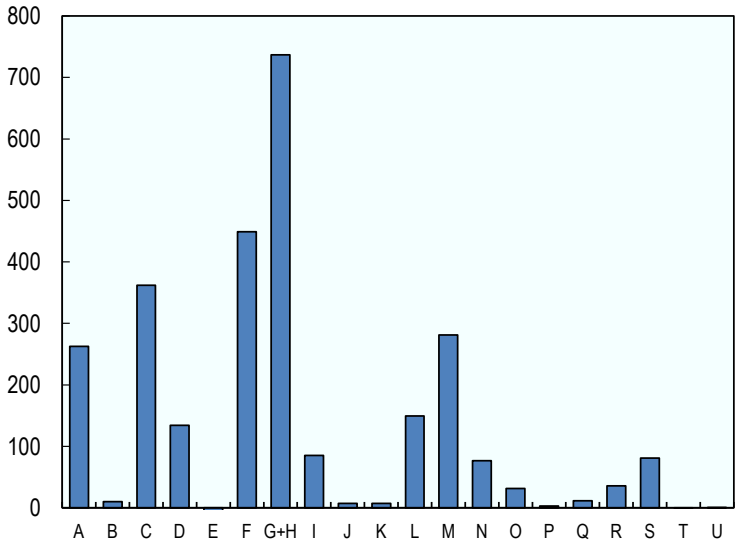
There are other minor methodological issues, e.g. it is important to ensure that the impact of the VAT registration threshold is properly factored into the analysis, as the threshold lowers VAT revenues. Reckon (2009) does make such an adjustment, but it appears to be quite modest. Novysedlák and Palkovičová (2012) do not take this impact into account.

Another approach would be a "bottom-up" or micro-level estimate of the VAT revenue loss. It would involve selecting firms (VAT payers) for audits. Selection bias would be a key issue to address, as only firms that are registered for VAT purposes could be selected. Firms unlawfully claiming refunds are already part of the system, but companies underreporting their sales might not. Nevertheless, as highlighted by a presentation by Switzerland at a workshop held by the OECD's CFA Working Parties No. 2 (on tax policy and statistics) and No. 9 (on VAT) on the economics of VAT in May 2012, a "bottom-up" estimation of the VAT gap, while likely providing a lower bound, can provide more detailed insights by decomposing the revenue loss into different components (e.g., underreported turnover, errors in claims for refunds, use for private purpose, etc.).

[4] Calculation based on data from tax returns and adjusted for the one-off effect of VAT from PPP projects. No miscellaneous adjustments have been made compared to the EU VAT gap calculations. I.e. in contrast to the EU VAT gap calculations, the results presented in this report have not been adjusted for the impact of the registration threshold, among other adjustments made in the EU VAT gap calculations.

About 80% of the Slovak Republic's VAT gap is concentrated in wholesale, retail sales and transportation, construction, manufacturing, agriculture and professional services. These results (Figure 12) are based on current work carried out by the IFP, building on the IMF's "Revenue Administration – Gap Analysis Programme" (RA-GAP) methodology[5]. A better understanding of the sectoral breakdown of the VAT gap helps target more effectively controls by the tax administration and anti-fraud policies. The IFP and the Slovak tax administration could seek to increase the reliability and usefulness of these sectoral results by combining a top-down analysis (using macro indicators) with a bottom-up approach (using tax return data) to estimate tax evasion.

Figure 12. VAT gap by sectors (EUR millions), 2008-2010 average[6]



A	Agriculture, forestry and fishing
B	Mining and quarrying
C	Manufacturing
D	Electricity, gas, steam and air conditioning supply
E	Water supply, sewerage, waste management and remediation activities
F	Construction
G	Wholesale and retail trade, repair of motor vehicles and motorcycles
H	Transportation and storage
I	Accommodation and food service activities
J	Information and communication
K	Financial and insurance activities
L	Real estate activities
M	Professional, scientific and technical activities
N	Administrative and support service activities
O	Public administration and defence, compulsory social security
P	Education
Q	Human health and social work activities
R	Arts, entertainment and recreation
S	Other services activities
T	Activities of households as employers, undifferentiated goods and services-producing activities of households for own use
U	Activities of extraterritorial organisations and bodies

Source: IFP

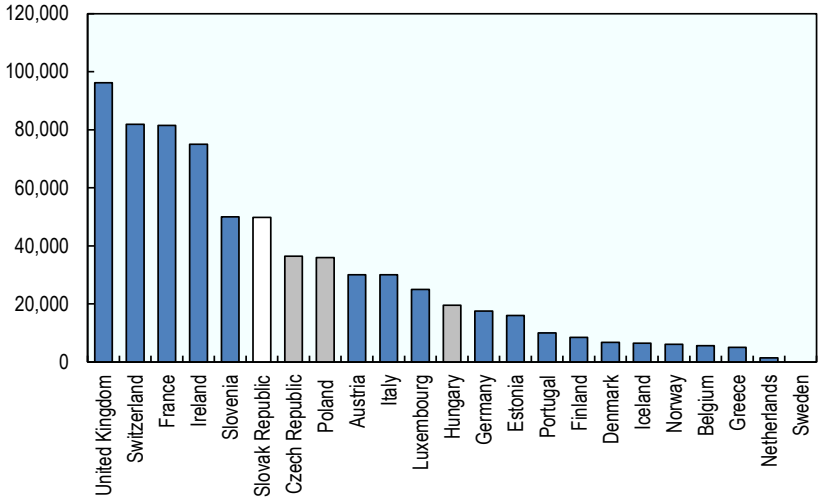
VAT revenue losses result from the high VAT registration threshold, inflated refund claims and fraud

A first explanation for the Slovak Republic's large VAT compliance gap is the high registration threshold for small businesses (see also footnote 4). At EUR 49,790, this threshold is high compared to other V4 countries whose thresholds range from EUR 19,432 (Hungary) to EUR 36,359 (Czech Republic) (Figure 13). The appeal of a high threshold stems from the fact that a relatively small proportion of firms typically account for a very large proportion of potential VAT revenue. A high threshold thus saves scarce administrative resources and reduces compliance costs for taxpayers. However, a high threshold has revenue cost implications (although businesses below the threshold do not receive a refund for the VAT they paid on their inputs) and may create tax avoidance and evasion opportunities. Therefore, the Slovak Republic should seek to reduce VAT compliance costs for SMEs so that the VAT threshold could be lowered, which would ultimately increase tax revenues and limit possibilities for tax avoidance.

5 The RA-GAP methodology is a top-down approach for estimating potential VAT, based on national accounts supply-use tables, which allows the estimation of the VAT gap on a sectoral level.

6 Supply-use tables are published with a three-year lag. For the Slovak Republic, supply-use tables are available for 2008-2010.

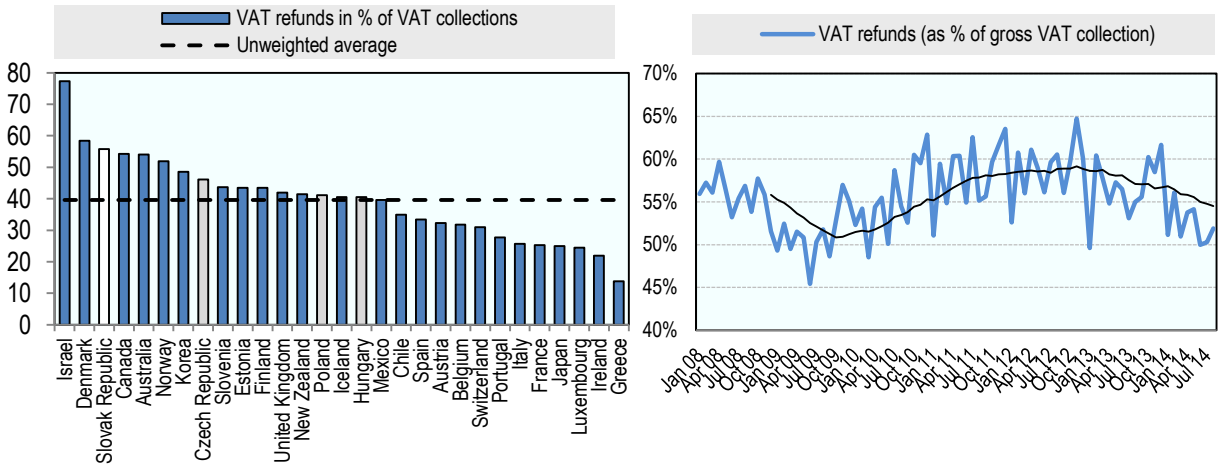
Figure 13. VAT registration thresholds in European OECD countries (EUR), 2014



Source: OECD Tax Database (2014)

The Slovak VAT system is also characterised by a very large amount of refunds. While refunds aim to guarantee the neutrality of the VAT system, they may create incentives for excessive refund claims. An OECD study (forthcoming) shows that VAT refunds in the Slovak Republic amount to almost 60% of VAT revenues, which is one of the highest ratios among the countries covered in the study (Figure 14, left-hand panel). the Slovak Republic's high level of refunds may simply be a consequence of its large export sector as exporters (who pay VAT on their purchases but have zero-rated export sales) are entitled to refunds. However, it may also suggest the existence of refund fraud. Recent trends have nevertheless shown a decrease in VAT refunds as a share of VAT collection (Figure 14, right-hand panel). From a policy perspective, these figures highlight the need for a more in-depth analysis of the drivers of the Slovak Republic's large VAT refunds and for robust compliance checks to detect fraudulent refund claims.

Figure 14. VAT refunds in 2013 in the OECD (left-hand panel) and in the Slovak Republic over time (right-hand panel) (as a % of gross VAT revenues[7])



Source: Provisional figures, OECD 2015 (forthcoming) and Financial Administration of the Slovak Republic. Note: The black line in the right-hand panel reflects the twelve month moving average.

Additional explanations for VAT revenue losses may include underreported sales, large unpaid VAT liabilities and cross-border VAT fraud, in particular carousel fraud. Typical carousel fraud schemes involve fraudsters importing goods VAT-free and charging VAT to their buyers. The sellers then disappear without paying the tax while the buyers deduct the VAT they paid from their overall taxable income, generating a loss in revenues.

To tackle the VAT gap, the Slovak government approved in May 2012 a comprehensive strategy which contains a large number of measures aimed at combating VAT fraud (for more details, see section 3.1). Section 3.1 argues that the recently adopted VAT measures may have contributed to narrowing the Slovak Republic's VAT gap.

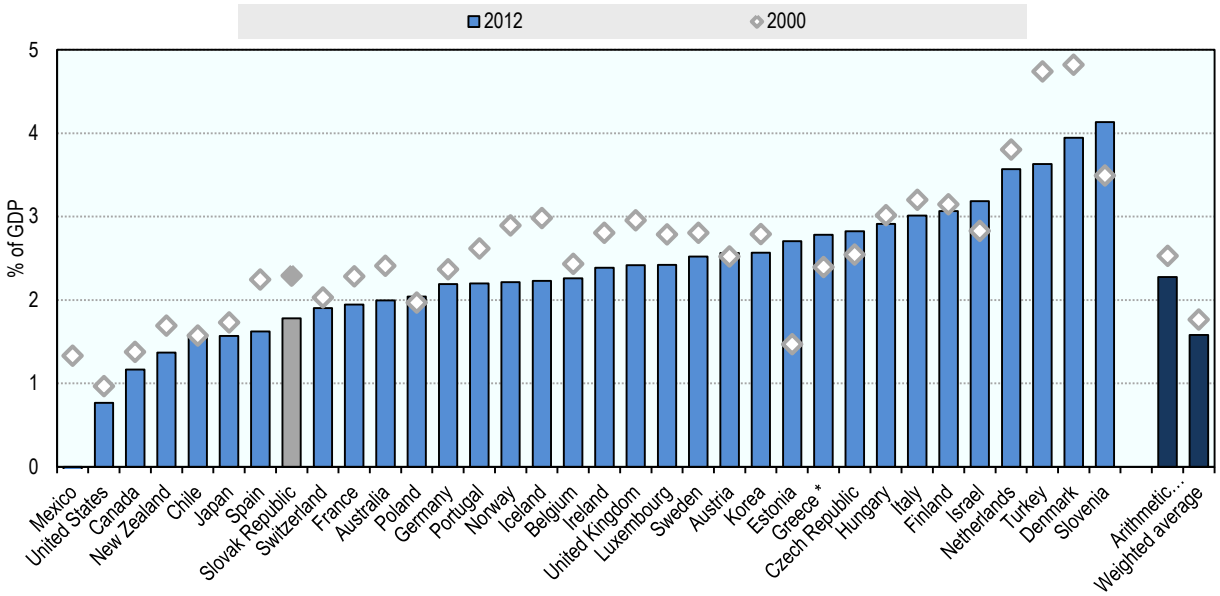
2.2 Environmentally related taxes

The Slovak Republic raises limited revenues from environmentally-related taxes

Revenues from environmentally related taxes in the Slovak Republic amounted to 1.8% of GDP in 2012 (Figure 15). This corresponds to 6.2% of total tax revenues. Environmentally related tax revenues were below the unweighted average of all OECD countries, which reached 2.3% of GDP or 6.5% of total tax revenues. The Slovak Republic's neighbouring OECD countries – Czech Republic, Hungary, Poland and Austria – all raise more revenues from environmentally related taxes as a percentage of GDP. Figure 15 also shows that revenues decreased more from their level in 2000 for the Slovak Republic (2.3% of GDP in 2000) than for the unweighted average of all OECD countries (2.5% of GDP in 2000). One reason for this decline in revenues is that *ad quantum* excise duties are not indexed for inflation in the Slovak Republic. Indexing *ad quantum* excise duties for inflation would help to prevent environmentally related tax revenues from declining in real terms over time.

[7] It corresponds to the sum of the gross tax liability and VAT collected on imports.

Figure 15. Environmentally related tax revenues (% of GDP), 2000 and 2012



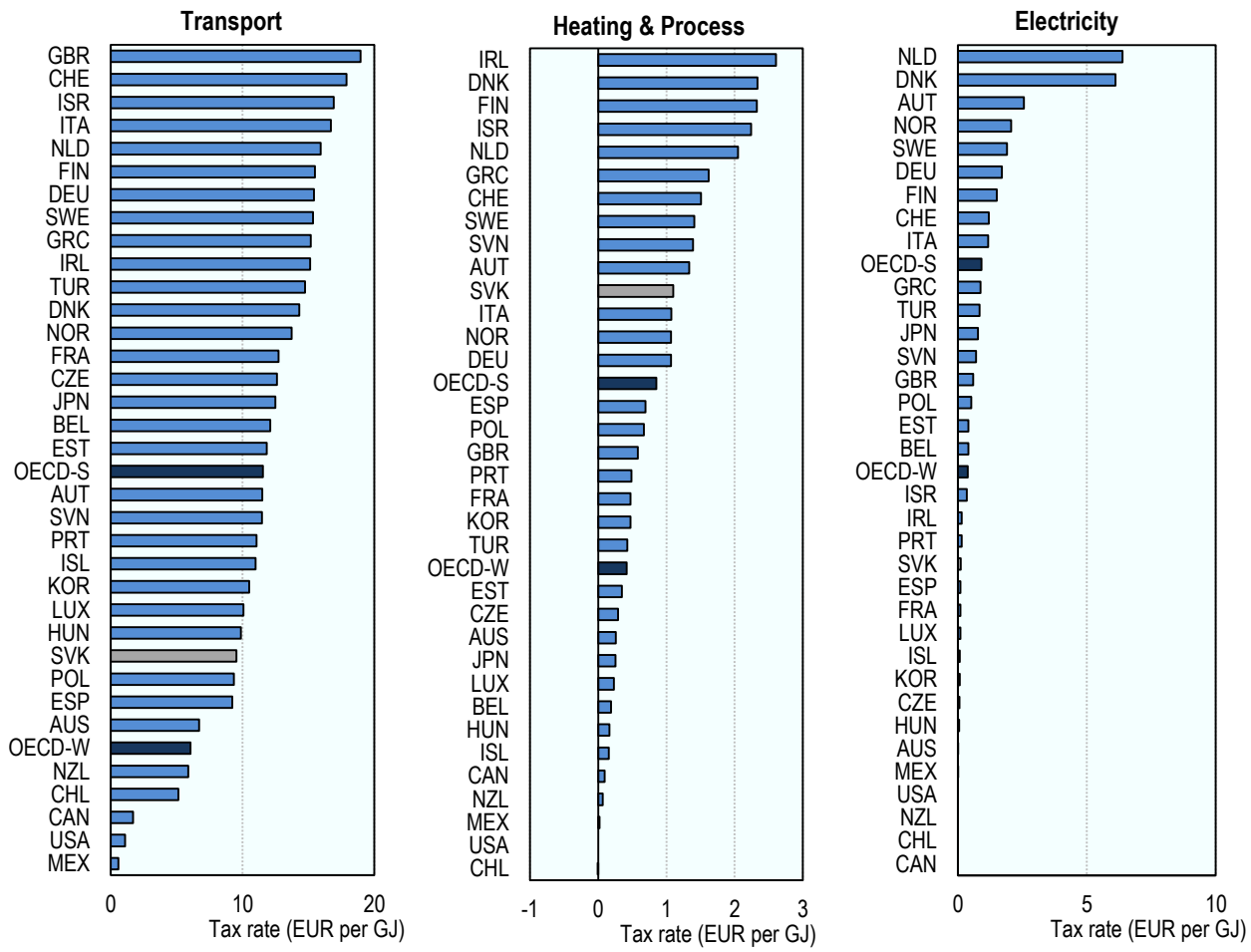
Source: OECD database on instruments used for environmental policy (OECD, 2014b), * 2011 figures, Mexico reached negative tax revenues as % of GDP in 2012 (-1.3% of GDP)

Effective tax rates on different types of energy uses vary

More than 85% of all environmentally related tax revenues in the Slovak Republic in 2013 originated from taxing energy use (OECD, 2014b). The remainder stems from taxing motor vehicles and other environmentally related goods. The following discussion will therefore focus on taxes on energy use notwithstanding that there may be other policy areas where environmentally related taxes could play a role.

Figure 16 shows effective tax rates on energy for transport, heating and process, and electricity use in OECD countries. Transport fuel and electricity use are effectively taxed below the unweighted OECD average in the Slovak Republic while the effective tax rate for heating and process energy use is slightly above the unweighted OECD average.

Figure 16. Effective tax rates on energy by categories of uses



Source: Taxing energy use (OECD, 2013b)

The taxation of energy for heating and process use is highly heterogeneous

Heating and process energy use accounts for 54% of total energy use in the Slovak Republic (OECD, 2013b). By contrast, transport and electricity represent respectively 16% and 29% of total energy use. In comparison, the unweighted average of heating and process energy use in all OECD countries is only 34% of total energy use. In terms of CO_2-emissions heating and process energy use is even more significant in the Slovak Republic. It accounts for 71% of the Slovak Republic's CO_2-emissions (OECD, 2013b).

While the effective tax rate for heating and process energy use is slightly above the OECD average, the taxation of energy for heating and process use is highly heterogeneous. Currently only natural gas for non-heating process use by industrial and commercial sectors is taxed at a non-negligible level of EUR 2.6 per Gigajoule (GJ) (EC, 2014b). Natural gas for heating use is only taxed at a reduced rate of EUR 0.37 per GJ. Coal is only taxed at EUR 0.31 per GJ and additionally exempted from taxation for heating use by households. Blast furnace gases and oil products other than fuel oil for heating and process use are not taxed at all (OECD, 2013b). Given the large share of heating and process energy use in total energy use and in total CO_2-emissions, a more harmonised taxation of heating and process energy use could raise

substantial revenues. Such a reform would also eliminate the seemingly arbitrary discrimination between different fuels used for heating and processing as well as provide incentives to increase energy efficiency and reduce emissions from burning fossil fuels.

Raising taxes on fuels used by industrial sectors might raise concerns that it would reduce the competiveness of the industrial sector in the Slovak Republic. Recent empirical research on the competitiveness effects of environmentally related taxation and emissions trading finds, however, that such concerns are not necessarily justified (Martin et al., 2014 and preliminary OECD work). The empirical evidence of the competitiveness impacts of introducing or increasing carbon and electricity taxes identifies only very small impacts on competitiveness; carbon taxes however do significantly decrease energy intensity. Empirical evaluations of the EU Emission Trading System (ETS) have found that the EU ETS has lowered emissions but did not affect employment and output negatively.

Higher taxes on heating fuels for households may also raise concerns that poorer households would bear a particularly large tax burden. Preliminary OECD analysis suggests that the taxation of heating fuels in the Slovak Republic is mildly regressive but also that the financial burden for households from the taxation of heating fuels is currently very low. Instead of increasing taxes on heating fuels drastically, the Slovak government may therefore announce such a reform and introduce it gradually. Similarly to the analysis on VAT reduced rates, the use of reduced taxes on household heating fuels is a poor way to redistribute income as richer households typically gain more in absolute terms from such a lower tax than poorer households. A first-best approach would therefore be to compensate poorer households for the heating fuel tax increase through the benefit system.

In addition to the taxation of energy for heating and process use through domestic excise taxes per unit of energy, some sectors included in the EU ETS are also subject to carbon pricing. In order to ensure comparable levels of taxation and provide more incentives to mitigate carbon emissions, the Slovak Republic may consider introducing a carbon tax covering those sectors that are not included in the EU ETS.

The tax system does not encourage a clean production and efficient use of electricity

Electricity produced from domestic lignite has been supported since 2005 through a feed-in tariff (OECD, 2013f) and the price of electricity includes a levy that finances this feed-in tariff. This support goes against efforts to reduce greenhouse gas emissions by subsidising the most carbon-intensive source of energy production and it increases the price for electricity.

Electricity use by business is currently taxed at the very low rate of EUR 1.32 per Megawatt hour (MWh) and households are exempted from the electricity tax (EC, 2014b). Neighbouring countries such as Poland and Austria tax electricity at a substantially higher level; EUR 4.73 and EUR 15 per MWh, respectively. Increasing the tax on electricity consumption to such levels and eliminating the tax exemption for households would increase revenues and provide incentives to increase energy efficiency. To make this reform happen, poorer households could be compensated through the benefit system.

Diesel fuel benefits from a favourable tax treatment

Transport energy in the Slovak Republic is dominated by oil products, and in particular gasoline (33% of road energy) and diesel (58%). Gasoline for transport use is currently taxed at EUR 0.515 per litre (OECD, 2014b). This is much higher than in Poland and Hungary, and slightly higher compared to the Czech Republic and Austria. Calculations based on OECD (2014b) show that while the excise duty on gasoline is only EUR 0.03 per litre higher than in Austria, the total price for gasoline exceeds the price in

Austria by EUR 0.08 per litre. This reveals that the pre-tax price for gasoline is high in the Slovak Republic.

In 2010, the Slovak Republic introduced a kilometre based toll for highways and selected national roads for vehicles weighting more than 3.5 metric tonnes. Vehicles weighting below 3.5 metric tonnes are required to purchase a vignette for the use of highways. At the same time, the tax on diesel for transport use was lowered substantially from EUR 0.481 per litre to EUR 0.386 per litre.

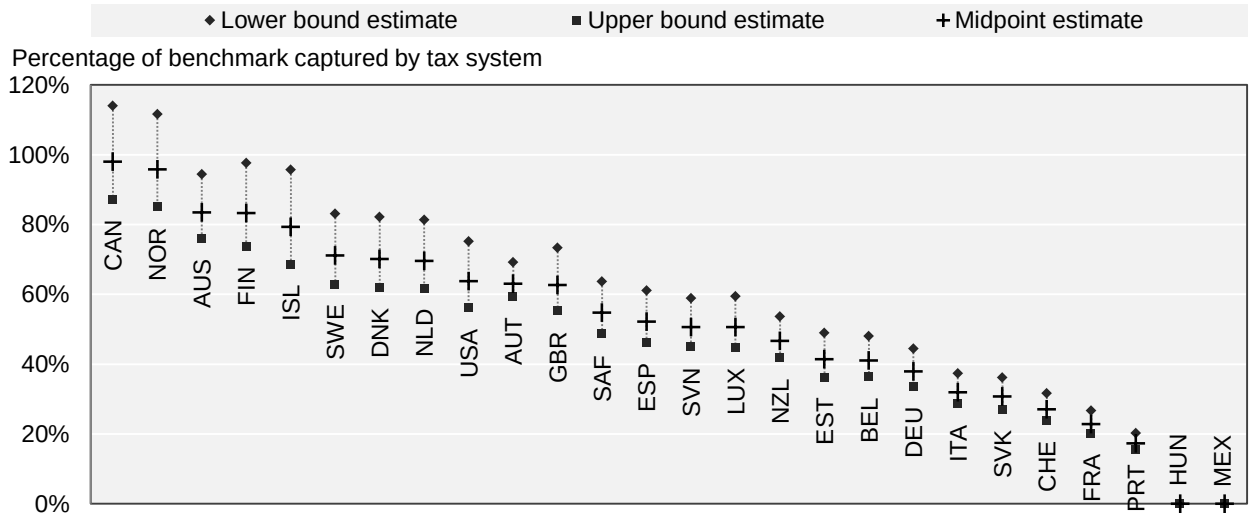
Diesel for transport use is taxed at a lower rate than gasoline, whether tax rates are measured per litre as mentioned above, per unit of energy or per carbon content. On an energy basis, diesel is taxed 35% less than gasoline, which exceeds the 32% diesel preference that can be found on average in the OECD (Harding, 2014a). This preferential tax treatment of diesel has contributed to an increase in the proportion of diesel cars in in the total car stock from 9.6% in 1995 to 17.2% in 2009 (EC, 2013c).

From an environmental perspective, the lower tax rate on diesel fuel is not warranted, given the relative environmental costs associated with the use of each fuel. Diesel has higher emissions of carbon and of harmful air pollutants (notably particulate matter) per litre of fuel used. The fuel efficiency advantage of diesel vehicles over their gasoline counterparts does not justify this differential in taxation on a per litre basis. The difference in tax rates may also have significant revenue implications (Harding, 2014a).

Company car benefits are only partially captured by the tax system

As in other OECD countries, the taxable income from the personal use of company cars is currently only partially captured by the Slovak tax system (Figure 17). To estimate the resulting tax expenditure, Harding (2014b) compared the tax treatment of company cars in 26 OECD countries, including the Slovak Republic, against a benchmark tax treatment that aimed to capture the full value of company car benefits. Under the midpoint estimate of the benchmark, the tax treatment of company cars in the Slovak Republic captured only 31% of the benchmark treatment, resulting in an estimated tax expenditure of EUR 111 million in 2012.

Figure 17. Percentage of company car benefits captured by the tax system



Source: Harding (2014b)

This tax expenditure results from two factors. Firstly, Slovak workers who benefit from a company car do not have to buy a car themselves and the value of this gain is only partially captured by the tax system. Secondly, the taxation of company cars in the Slovak Republic does not vary based on the distance driven with the company car, resulting in no marginal cost of driving for an employee with a company car (in situations where the employer pays for fuel and the employee uses the car also for personal travel). Both factors, and particularly the lack of a component that varies with distance driven, increase environmental costs as the tax system creates incentives to purchase larger vehicles and to drive further. The environmental costs of this tax treatment are likely to exceed the tax revenue foregone, which strengthens the call for company car tax reform.

2.3 Corporate income tax

Resident companies in the Slovak Republic are subject to CIT levied on their worldwide income, while non-residents are subject to CIT only on income sourced in the Slovak Republic. Resident companies are those which have their headquarters or place of effective management in the Slovak Republic. The Slovak CIT has a broad tax base which includes capital gains. the Slovak Republic does not apply withholding taxes to cross-border dividends made to parent companies resident in a non–EU country.

As is the case in most OECD countries, Slovak companies face a (modest) tax-induced incentive to finance investment with debt rather than equity because interest payments are deductible from the CIT base but the return on equity is taxed at the CIT rate. This may make companies more prone to insolvency and discriminates against small companies and start-ups, which have a more limited access to debt financing and, as a result, depend more on equity to finance their projects (OECD, 2007). It should be noted, however, that the Slovak Republic introduced thin-capitalisation rules for related parties in 2015. The rules limit tax deductible interest from loans provided by local and foreign related parties to 25% of EBITDA (earnings before interest, taxes, depreciation and amortisation).

There are no controlled foreign corporation (CFC) rules in the Slovak tax system. The tax rules for carrying losses forward were tightened in 2014. Under the new rules, tax losses may only be carried forward for up to four years and only up to one quarter of accumulated losses can be deducted each year. Before 2014, losses could be carried forward for seven years without any restrictions on the amount of losses that could be deducted annually. Profits and losses of companies belonging to the same group cannot be consolidated.

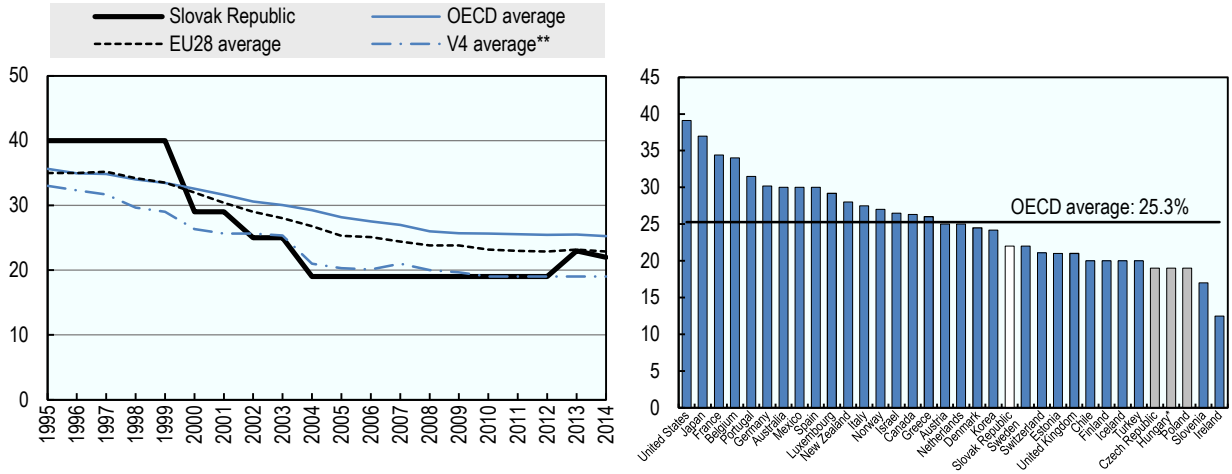
The statutory corporate income tax rate was raised in 2013

The statutory CIT rate has a strong impact on corporate effective tax rates which influence incentives to invest. An increase in a country's CIT rate can reduce its attractiveness for foreign investment – although the statutory CIT rate is only one of the factors that drive foreign investment decisions – and in turn have a negative effect on employment, particularly on low-skilled employment which multinational companies can more easily replace by relocating to more competitive locations. Moreover, an increase in the statutory CIT rate creates additional incentives for tax planning and profit shifting strategies (e.g. through transfer pricing or inter-group loans) and might further distort competition between compliant and non-compliant businesses as it only increases the tax burden of compliant companies.

From 2004 to 2012, the Slovak Republic had a CIT rate of 19% which was comparable to CIT rates in the other V4 countries but which was among the lowest in the OECD (Figure 18, left-hand panel). The CIT rate was raised to 23% in 2013 and lowered again to 22% in 2014. The Slovak Republic now finds itself in line with the average CIT rate of small OECD economies but three percentage points above those in peer countries (Figure 18, right-hand panel).

FDI data shows that the Slovak Republic was able to attract more FDI as a percentage of GDP than many other OECD countries after 2000. During many years, it also attracted more foreign investment than its peer V4 countries. Although the CIT rate is only one of the factors that motivate multinational firms' investment decisions, large FDI inflows coincided with the decline in the Slovak Republic's statutory CIT rate from 40% in 1999 to 29% in 2000 and to 19% in 2004.

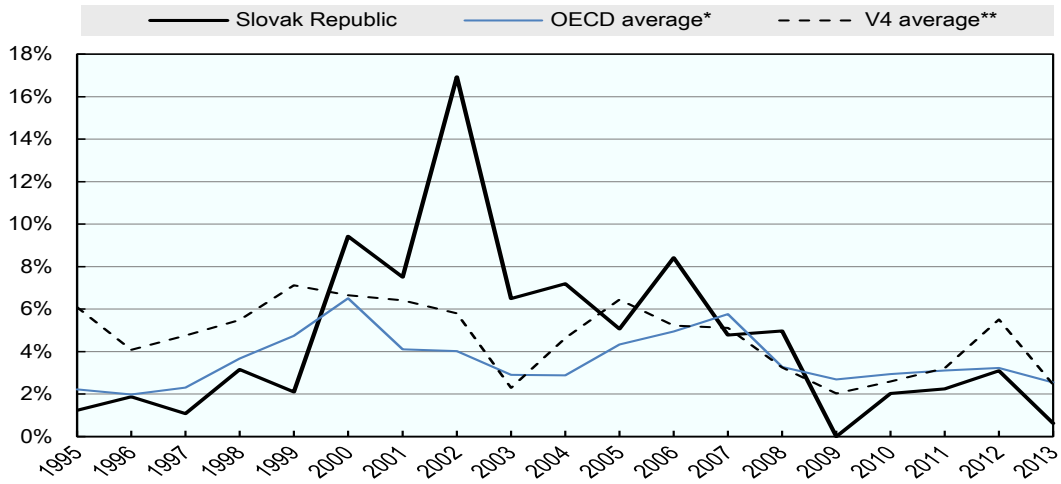
Figure 18. General CIT rate (%), the Slovak Republic 1995-2014, OECD countries, 2014



Source: OECD Tax Database (2014) and European Commission. * Figure for Hungary does not include the additional local CIT tax on gross operating profit, ** Includes V4 countries other than the Slovak Republic

However, the Slovak Republic experienced a sharper decline in FDI than OECD and V4 countries after 2008 (Figure 19). In order to reverse this trend in FDI inflows, the Slovak Republic may want to take a combination of measures, including measures that allow the Slovak Republic to climb on the Global Value Chain (OECD, 2014c). As discussed in more detail below, reforms could be financed through CIT base broadening measures as well as improvements in CIT compliance through a more effective CIT administration. The question of whether these measures would raise sufficient revenue to finance, for instance, a significant reduction in the statutory CIT rate requires further analysis. As the statutory CIT rate is not necessarily the most important driver of FDI (De Mooij and Ederveen, 2003) – in fact, recent analysis suggests that the level of labour costs has a stronger impact on FDI inflows than CITs (Hunady and Orviska, 2014) – the Slovak Republic may want to put more emphasis on lowering the tax burden on (especially low-skilled) labour income.

Figure 19. FDI inflows (% of GDP), 1995-2013

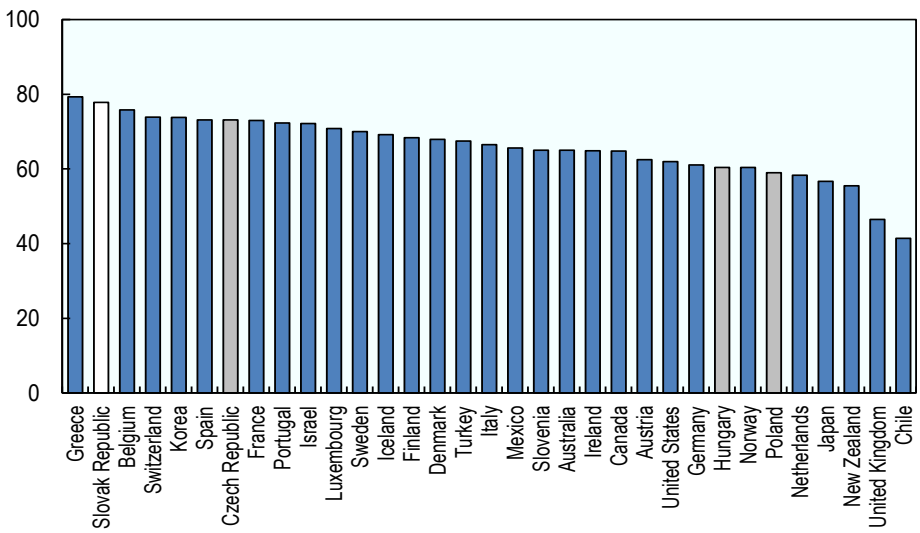


Source: OECD FDI Statistics. * Only includes countries for which data for the whole period 1995-2013 is available. ** Includes V4 countries other than the Slovak Republic, i.e. the Czech Republic, Poland and Hungary.

The Slovak Republic's generous tax depreciation allowances have recently been reformed

Prior to 2015, the Slovak Republic implemented relatively generous tax depreciation allowances, in particular for investments in buildings (Figure 20). Property, plants and equipment were divided into four groups according to the assets' expected useful lives. Calculations by the IFP show that these generous tax depreciation allowances resulted from the relatively short period of depreciation for long-life assets, in particular industrial buildings (Table 2), and the option to use accelerated depreciation which allows businesses to effectively depreciate capital more rapidly than with the conventional declining balance method (for more details, see Annex 1). In general, accelerated depreciation allowances lower the marginal effective tax rate (METR) but have a smaller impact on the average effective tax rate (AETR) which depends more strongly on the statutory CIT rate. As foreign investors aim at earning an economic rent on their investment, their decisions are more affected by the level of the AETR than the METR.

Figure 20. Present value of depreciation allowances (as % of cost), 2012



Source: Based on calculations by Bilicka and Devereux (2012)

Table 2. Comparison of minimum depreciation periods with neighbouring countries (in years), 2014

	Industrial buildings	Administrative and residential buildings	Passenger cars
Slovak Republic	20.0	20.0	4.0**
Czech Republic	20.0	50.0	5.0
Hungary	50.0	50.0	5.0
Poland	40.0	66.0*	4.0-10.0
Austria	33.3	50.0	8.0

* Only residential buildings, ** Leased cars can be can be written-off over a 3 year period

Source: PWC, http://taxsummaries.pwc.com/uk/taxsummaries/wwts.nsf/frmTerritory?ReadForm

As of January 2015, the number of depreciation groups was extended from four to six. For certain types of assets the tax depreciation period was extended, while for others it was reduced. For assets of a technological nature, such as generators or transformers, the depreciation period was reduced from 12 to 8 years. On the contrary, the depreciation period for administrative buildings was extended from 20 to 40 years which better aligns tax depreciation allowances with the economic depreciation over the real life of assets. The new rules also restrict the use of accelerated depreciation. Finally, the preferential method for the calculation of the depreciation of assets acquired under a finance lease was abolished.

The CIT rate increase has raised marginal and especially average effective tax rates

A number of studies indicate that the Slovak Republic compared favourably to neighbouring countries and the OECD average on METRs and AETRs when the CIT rate was of 19% (Table 3). While methodologies differ across the studies cited in Table 2.3, the AETR and METR in the Slovak Republic in 2012 were roughly in line with those in the Czech Republic and somewhat below those in Poland and Hungary. In comparison, the increase in the general CIT rate to 22% should bring the AETR for the Slovak Republic moderately above those for the Czech Republic and Poland, and roughly in line with the rate in Hungary.

Table 3. Effective tax rates on investment based on 19% CIT rate for the Slovak Republic, 2012

	AETR		METR	
	Bilicka and Devereux	ZEW	Bilicka and Devereux	Chen and Mintz
Slovak Republic	15.9	16.8	7.4	12.8
Czech Republic	16.1	16.7	8.3	12.7
Hungary	18.6	19.3	10.7	16.6
Poland	16.7	17.5	12.5	14.5
OECD average (unweighted)	22.5	n/a*	13.6	19.5

* Not available for all OECD countries.

More types of firms, including SMEs, should be eligible for investment incentives

The evidence on the effectiveness of investment incentives, including those delivered through the tax system, is mixed. De Mooij and Ederveen (2003) find a median semi-elasticity of FDI to the tax rate of -3.3, implying that a 1 percentage point increase in the tax rate reduces FDI by 3.3 per cent. They find substantial variations, however, depending for instance on the definition of FDI (e.g. mergers and acquisitions have a lower elasticity than fixed capital investment) or on the tax measure (e.g. higher sensitivity of FDI to effective than to statutory rates).

The Slovak Republic offers incentives for investments in industry, technological centres, shared service centres and tourism. Incentives include both direct subsidies and tax incentives. Direct subsidies take several forms: subsidies for the acquisition of both tangible and intangible assets, financial support for creating jobs and the transfer or swap of immovable assets at a discount. A company is eligible for tax relief only if it has received previous approval for a direct subsidy, meaning that tax relief is a supplementary tool to a direct subsidy.

The Slovak Republic's investment incentives are mainly targeted at large investments as there are minimum investment requirements. To be eligible for incentives, investment projects must also generate new jobs and new production. These incentives may therefore create disadvantages for small and medium-sized firms which might not be able to meet these requirements. The minimum amount of required investment and the required share of new technological equipment are reduced in regions where unemployment is particularly high in the cases of investments in industrial production and tourism.

Box 7. Calculation of investment and R&D tax reliefs

Investment tax relief

A company may claim a tax relief up to the amount of tax corresponding to a prorated part of the tax base *(PTB)*.

$$Tax\ relief = PTB\ \times tax\ rate$$

The prorated part of the tax base is calculated by multiplying the tax base by a coefficient *(c)*.

$$PTB = tax\ base\ \times\ c$$

The coefficient *c* is calculated as a ratio of eligible costs *(EC)* for which the investment subsidy was granted (up to the amount of the acquisition cost of long-term tangible and intangible assets of the investment purchased after the approval of the investment incentive in the relevant tax period) to the sum of the value of the company's equity *(EQ)* reported in the financial statements for the relevant tax period and eligible costs.

$$c = \frac{EC}{EC + EQ}$$

R&D tax relief

A company may claim a tax relief up to the amount of its own cost expensed in the project (OC) with a threshold of tax corresponding to a prorated part of the tax base (PTB).

$$Tax\ relief = \ min(PTB\ \times\ tax\ rate\ , OC)$$

The prorated part of the tax base is calculated by multiplying the tax base by a coefficient (c).

$$PTB = tax\ base\ \times\ \ c$$

The coefficient is calculated as a ratio of own costs invested in the project in the relevant year to the sum of own costs mentioned above and portion of approved incentive in the form of a subsidy (S) falling in the given tax year.

$$c = \frac{OC}{OC + S}$$

According to statistics from the Ministry of Economy, the amount of tax incentives in both absolute and relative terms declined significantly over time, although the amount increased again since 2012 (Table 4). The major drop in 2008 was caused by the expiry of a ten-year tax holiday that was offered in 1998. As expected, the relatively high investment threshold resulted in a small number of companies benefiting from the incentives; on average, only 45 companies (i.e. not more than 0.05% of all companies) benefited from investment and R&D tax relief over the 2004-2013 period. These companies were able to significantly reduce their tax liability thanks to the CIT relief; tax liabilities dropped by 70% to 85% over the 2004-2013 period. Some companies effectively reduced their CIT liability to zero.

Table 4. Investment and R&D tax relief, 2004-2013

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Tax incentives (EUR mil)	204.2	93.7	140.0	139.3	54.7	29.5	30.6	25.8	39.3	42.3
Tax incentives (% of GDP)	0.44%	0.19%	0.25%	0.22%	0.08%	0.05%	0.05%	0.04%	0.05%	0.06%
Tax incentives (% of CIT revenues)	17.4%	7.0%	8.8%	7.6%	2.6%	1.9%	1.9%	1.5%	2.4%	2.1%
Number of companies with approved incentives	42	44	37	38	43	31	49	49	63	58
Companies with approved incentives (% of all Slovak companies)*	0.05%	0.05%	0.04%	0.03%	0.03%	0.02%	0.03%	0.03%	0.03%	0.03%
Average reduction of tax liability (% of tax liability gross of incentives)	84.0%	85.3%	75.2%	78.7%	84.9%	72.3%	76.1%	69.3%	74.2%	NA

Source: IFP, CIT returns 2005-2013 * Non-profit and tax-exempt legal entities are not included. 2013 figures are preliminary.

In addition to creating distortions across companies and altering competition, investment incentives generate fiscal and administrative costs. The Slovak Republic's 2014 Tax Expenditure Report indicates that the revenue foregone as a result of corporate tax incentives amounted to about EUR 40 million in 2013[8], which corresponds to about 2.1% of CIT revenues.

Investment incentives also raise governance and public efficiency issues. Obtaining an incentive in the Slovak Republic requires not only that the eligibility requirements set out in the legislation are met, but also that approval is obtained from the Ministry of Economy, the Ministry of Transport, the Ministry of Labour and Social Affairs or the Ministry of Education and ultimately from the Cabinet of the government itself. This long approval process may help limit the amount spent on subsidies and ensure that broader economic considerations are taken into account. However, these objectives could probably be achieved through a simpler process, which would reduce compliance costs for businesses.

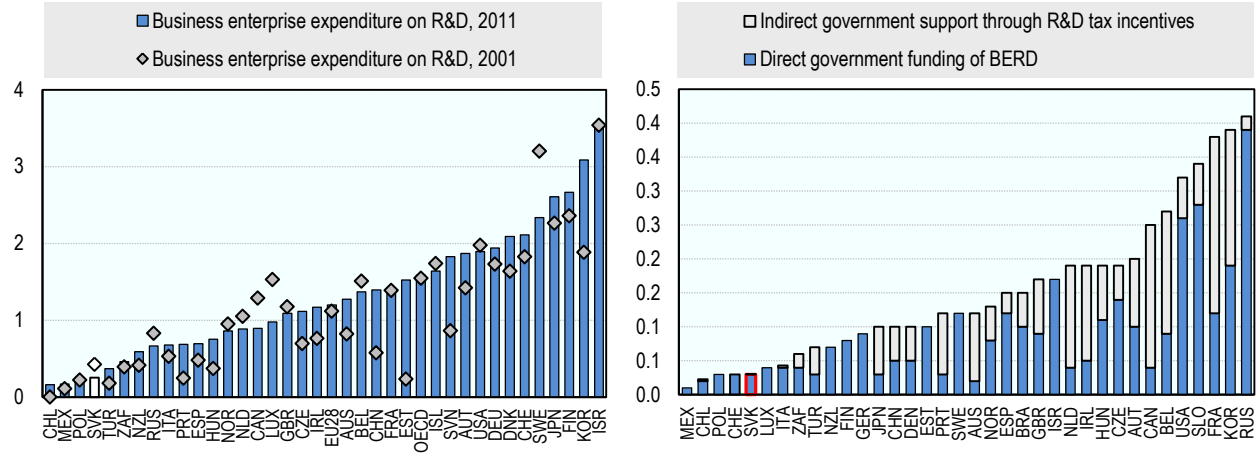
The R&D tax relief provisions should be evaluated and possibly reformed

The Slovak Republic's business R&D expenditure as a percentage of GDP is well below the OECD average and below R&D expenditure in Hungary and the Czech Republic (Figure 21, left-hand panel). Business investment in R&D also declined over the 2001-2011 period. The right-hand panel of Figure 21 shows that public support for R&D, which is typically justified by the market failures that tend to reduce private incentives to invest in R&D (e.g. knowledge spill-overs), is also low by international standards.

[8] This figure slightly differs from the revenue foregone reported in Table 5 as the most recent Tax expenditure report uses the 2015 CIT legislation as a benchmark to calculate the cost of the 2013 tax incentives.

Figure 21. Business R&D expenditures and public support for R&D in OECD countries

(as a % of GDP), 2011



Source: OECD (2013e)

Governments can stimulate R&D either through direct subsidies or CIT relief. R&D tax relief prevents the government from "picking winners" and distributes R&D support more widely across businesses. However, tax incentives raise compliance costs for businesses and enforcement costs for government. It can be assumed that tax relief creates more scope for tax avoidance when tax administrations are weak. Moreover, the OECD (2011) notes that firms have an incentive to use R&D tax incentives to fund projects with an expected positive (after-tax) private rate of return, but that these projects do not necessarily yield the highest social return. Direct R&D grants might be better suited to bridge the gap between the private and social returns to innovation and target the projects with the highest social returns. Andrews and Criscuolo (2013) point at the complementarity between grants and R&D tax relief for an efficient innovation policy.

The Slovak system, offers both forms of R&D support. Subsidies are granted by the Ministry of Education whereas income tax relief is granted by the Ministry of Finance. The R&D tax relief introduced in 2010 is a function of the firm's eligible costs and the direct subsidy received and can be claimed over a period of up to three years (Box 7). It was originally designed for large R&D projects but the rule imposing a minimum expenditure to qualify for the R&D tax incentive was abolished in 2013. The right-hand panel of Figure 21 nevertheless shows that direct government funding remains by far the dominant form of public support for R&D and that tax incentives are negligible.

In 2015, a new R&D tax relief scheme was introduced. The new relief is a tax deduction (i.e. allowance) for R&D expenditure with the possibility of a carry forward of up to four years for companies with insufficient profits or in a loss position. The deduction is calculated as the sum of three components: 25% of eligible R&D expenditures, 25% of increase in the R&D expenditures compared to the previous year and 25 % of labour costs of newly-hired graduates involved in R&D. These R&D tax allowances come on top of the standard deduction of the R&D costs and wages from the CIT base. The combination of a volume-based and an incremental component at a rate of 25% means that R&D expenditure increases are effectively deducted at 50% and the rest of the R&D expenditures at 25%, providing reasonable benefits for companies with stable R&D expenditures and higher incentives for companies increasing their spending on R&D.

While the new R&D tax incentive is more easily accessible and better designed than the old one, the Slovak Republic is now left with two R&D tax schemes. Even if they are mutually exclusive, i.e. companies cannot benefit from both 2010 and 2015 schemes at the same time, having two different systems raises compliance costs for businesses and especially administrative costs for the government. Government may therefore consider abolishing or gradually phasing out the old R&D tax regime.

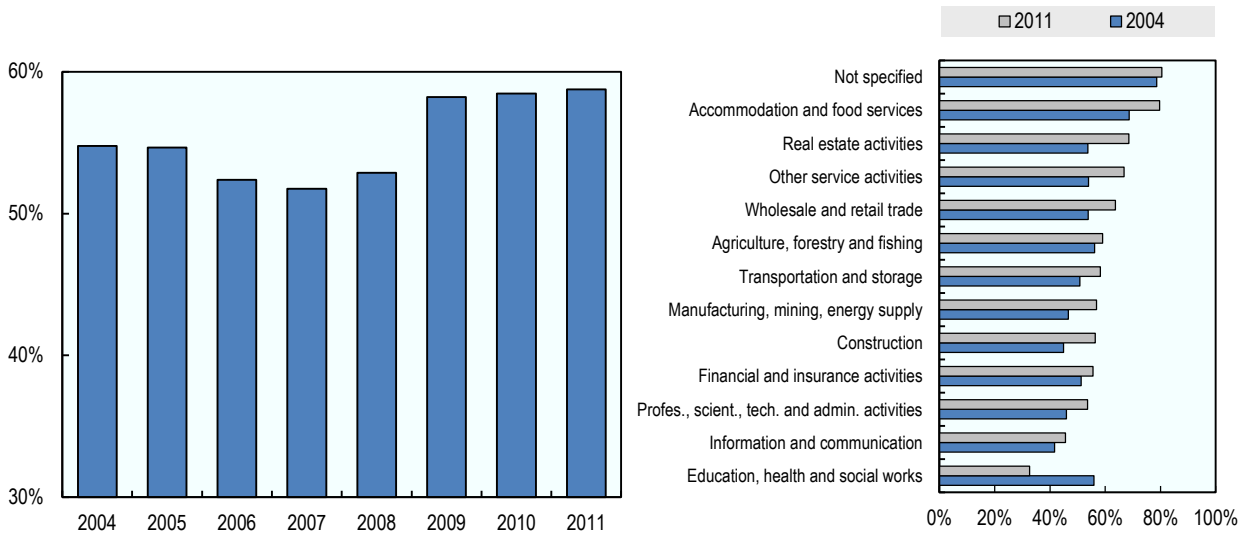
The new R&D tax relief system might generate more opportunities for tax evasion than the old system because there is more room for companies to mischaracterise their ordinary expenditures as R&D expenditures. The incremental component of the new R&D tax incentive might also lead to new strategies by companies seeking to maximise R&D tax relief (e.g. through zigzag expenditure patterns).These risks are exacerbated by the low level of tax compliance in the Slovak Republic, and further increase the need to strengthen the Slovak tax administration.

Despite being generous, the 2015 R&D tax relief scheme will not necessarily stimulate innovative activities in small and new firms. Firms, in particular young technological start-ups and SMEs, may not generate sufficient profits in the first years following their creation and hence not be able to benefit from the R&D tax incentive, even though the R&D tax allowance can be carried forward of up to four years. The Slovak Republic may therefore consider directly refunding the tax credit for young innovative firms that do not make profits (OECD, 2014c). Small and young businesses may also face high compliance requirements or, in some cases, not even be aware of the new R&D tax relief. The design of the new R&D tax incentive may therefore have to be improved if its economic impact turns out to be limited. An awareness-raising campaign targeted in particular at SMEs may also be useful to increase the take-up rate of the R&D tax relief. Other directions for reform favourable to SMEs are to make the costs related to sub-contracted R&D (OECD, 2014c) as well as intellectual property that has been purchased or licensed eligible for relief.

CIT evasion is widespread

The relatively high share of companies not paying any CIT is an indication of low tax compliance. Every year, more than half of the corporations do not pay CIT. The share of non-payers slightly decreased in 2006 and 2007 but never got below 50%, even in times of strong economic growth (Figure 22, left-hand panel). These numbers are surprisingly high; especially in light of the 9.8% average nominal growth rate in GDP during the 2000-2006 period in the Slovak Republic. The average nominal growth of gross operating surplus amounted to about 6% in that same period. A sectoral analysis reveals that businesses in the accommodation, food services and real estate sector typically do not pay much CIT. Businesses in the education, health and social sectors, on the other hand, are amongst the businesses that pay the most CIT. The same applies to the information and communication sector which comprises many state-owned and large companies (Figure 22, right-hand panel).

Figure 22. Share of companies that do not pay CIT in the Slovak Republic, 2004-2011



Source: IFP, Statistical Office of the Slovak Republic and own calculations, CIT returns, 2004-2011

Further analysis of corporate tax returns reveals that there are a substantial number of companies which repeatedly declare zero taxable income. In the years 2004-2011, around 19% of total companies declared zero tax liability and did not pay any tax in eight consecutive years. There might be other reasons than non-compliance (e.g. loss carry-forward, the use of tax incentives) but 57 % of those companies (i.e. 11% of all companies) reported a financial loss in all the years during the period (Table 5). This provides further evidence that CIT evasion is a significant issue in the Slovak Republic.

Table 5. Companies with zero tax liability in the Slovak Republic, 2004-2011

	2011	2010 to 2011	2009 to 2011	2008 to 2011	2007 to 2011	2006 to 2011	2005 to 2011	2004 to 2011
Length of the period	1 year	2 years	3 years	4 years	5 years	6 years	7 years	8 years
Share of companies* with zero tax liability in all years of the period	58.7%	47.8%	40.8%	33.2%	28.1%	24.0%	21.5%	19.4%
Average gross profit (in EUR) of companies with zero tax liability	-22 061	-29 647	-36 694	-45 920	-40 990	-33 402	-32 022	-32 180
Share of companies* in a loss position and with zero profit in all years of the period	50.5%	36.1%	28.3%	21.4%	17.1%	14.0%	12.3%	11.2%
Average gross profit (in EUR) of companies in a loss position and with zero tax liability	-46,793	-52,026	-55,418	-52,371	-47,005	-34,659	-30,819	-28,269
Average numbers of years with negative or zero tax liability	0.9	1.7	2.6	3.5	4.3	5.2	6.1	7.0

Source: IFP and authors' calculations, CIT returns, 2004-2011 * Non-profit and tax-exempt legal entities are not included.

2.4 Personal income taxes and social security contributions

Individuals domiciled in the Slovak Republic are subject to PIT on their worldwide income. PIT is assessed on an annual basis with a monthly obligation for employers to withhold tax pre-payments. PIT is

levied on gross individual income including wages and salaries, income from business activities, fringe benefits, certain types of capital income including interest payments and rental income.

As in the majority of other OECD countries, employees and employers in the Slovak Republic are also required to pay SSCs. There are two types of SSCs in the Slovak Republic: social insurance contributions and health insurance contributions. Social and health contributions are both assessed on gross incomes up to a maximum assessment base. SSCs are deductible and social benefits are exempt from personal income tax.

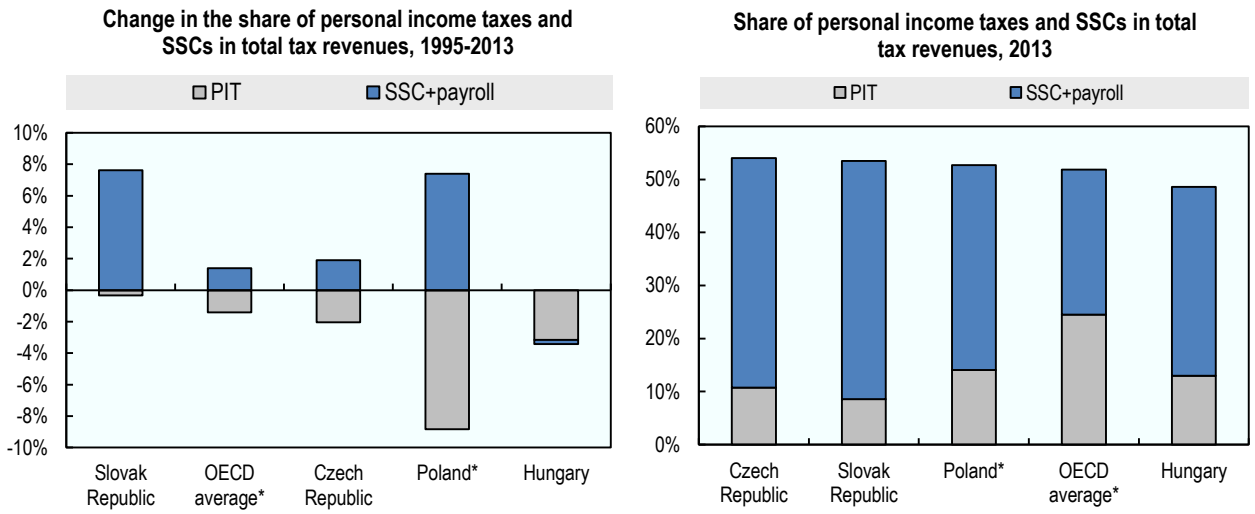
In general, labour taxation requires managing trade-offs between potentially conflicting objectives. On the one hand, governments must minimise disincentives for businesses to hire workers and for individuals to work, invest in skills (i.e. through formal educational credentials and other types of training), become an entrepreneur and save. On the other hand, direct personal taxation (and the PIT system in particular) plays an important role in redistributing income. Income inequality can be affected directly through the progressivity of the PIT system, and indirectly by virtue of its major role in raising revenues that can be used to pay for cash and in-kind benefits.

Taxes on labour income

The Slovak Republic relies heavily on revenues from SSCs while revenues from PIT are low

The Slovak Republic collects roughly half of its tax revenues from personal income taxes and SSCs (53.5% in 2013), which is a slightly higher share than in the OECD on average (51.9% in 2012). Among the countries in the region, the Czech Republic is the only country which collects more in personal income taxes and SSCs (54.2%). The reliance on personal income taxes and SSCs increased in the Slovak Republic by 7.3 percentage points over the period 1995-2013 while the average OECD share of personal income taxes and SSCs remained stable and decreased in the other countries of the region (Figure 23).

Figure 23. Share of personal income taxes and SSCs in total taxation, V4 countries and OECD average, 1995 and 2013



Source: OECD Revenue Statistics (2014) * Indicates that 2012 figures are used because 2013 figures are not available.

The Slovak Republic's high taxes on labour result from an over-reliance on SSCs. The share of SSCs in total revenues from labour taxes amounted to 83.9% in 2013 while the OECD average was 52.7% in

2012. Among the countries in the region, the Czech Republic had a similarly high share of SSCs and payroll taxes (80.1%) while SSC shares in Poland and Hungary were lower (although still significantly above the OECD average).

As explained further in this section, there are several reasons for the high SSC share in total revenues from labour taxes. First, there has been a gradual decline in PIT rates and more or less stable SSC rates. Second, the assessment bases of SSCs were gradually broadened and there were considerable increases in the maximum assessment base in 2005, 2008 and 2013. It should also be noted that there is a minimum SSC for the self-employed but no such measure for PIT, and that the SSC base is broader than the PIT base which is narrowed by PIT expenditures.

High SSCs contribute to a high overall tax burden on labour

Both employees and employers have to pay contributions for health insurance (4% and 10% respectively), as well as for social insurance which comprise pension insurance (4% and 14% respectively), disability insurance (both 3%), sick leave insurance (both 1.4%) as well as unemployment insurance (both 1%). In addition, employers are required to pay a contribution of 0.8% for accident insurance, 4.75% to a solidarity fund and 0.25% to the guarantee fund. The contribution rates paid by the self-employed are the sum of employees' and employers' contributions except for sickness insurance (see Table 6).

Table 6. SSC rates for employees and self-employed workers (%), as of 2013

	Employees			Self-employed	
	employee	employer			
		PAYG	second pillar	PAYG	second pillar
1. Social insurance	**9.4**	**25.2/21.2***	**0.0/4.0***	**33.15/29.15***	**0.0/4.0***
Sickness insurance	1.4	1.4		4.4	
Old-age insurance	4.0	14.0/10.0*	0.0/4.0*	18.0/14.0*	0.0/4.0*
Disability insurance	3.0	3.0		6.0	
Unemployment insurance	1.0	1.0		2.0**	
Solidarity fund	-	4.75		4.75	
Accident insurance	-	0.8		-	
Guarantee fund	-	0.25		-	
2. Health insurance	**4.0**	**10.0**		**14.0**	
Sum	**13.4**	**35.2/31.2***	**0.0/4.0***	**47.15/43.15***	**0.0/4.0***
	48.6			**47.15**	

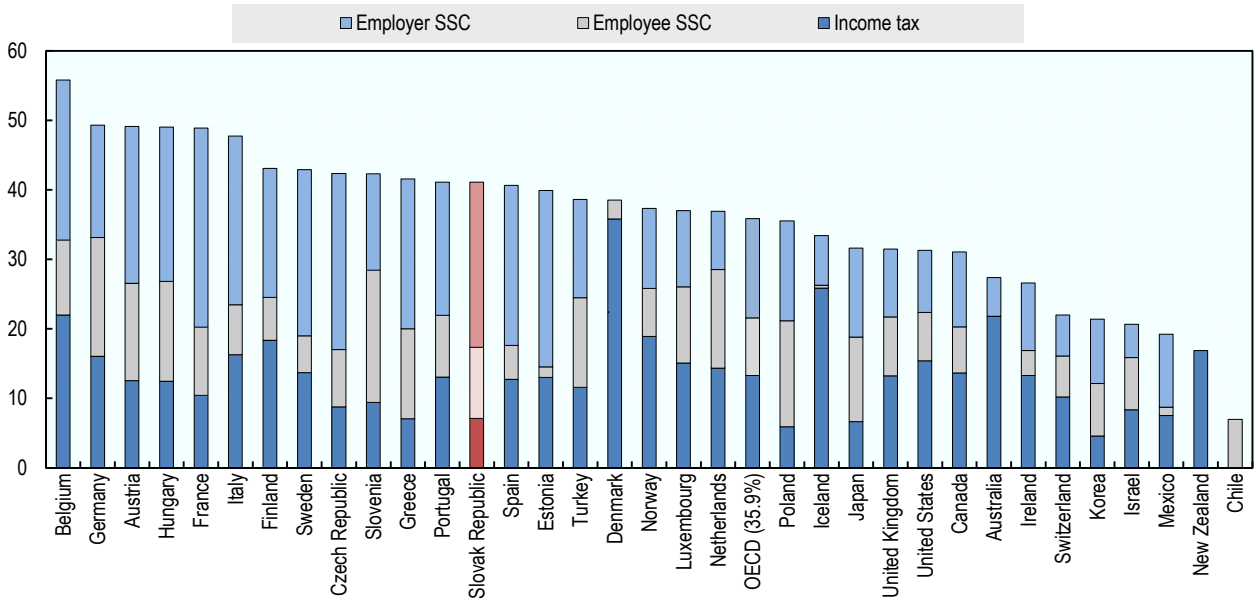
* Rates without participation in the second pillar/with participation in the second pillar. ** Voluntary (not included in the total SSC rate). The tax wedge calculations in the text take into account the 10% employer PAYG old-age insurance contribution; the compulsory payment wedges also include the 4% employer second pillar old-age insurance contribution.

SSC rates apply to assessment bases which are calculated differently for regular employees and self-employed workers. However, the contributions are capped by maximum assessment bases which are similar for both employees and self-employed workers. Indeed, since 2013, the monthly maximum assessment base for social and health insurance (except accident insurance which has no limitation) was unified at five times the average wage for all labour contracts.

The Slovak Republic's high SSCs contribute to the elevated overall tax burden on labour (Figure 24). The overall tax burden on labour income is typically measured by the average tax wedge, which amounts to the overall burden resulting from PIT, employee SSCs, employer SSCs and payroll taxes net of cash

benefits as a percentage of total labour costs (i.e. gross earnings augmented by employer SSCs and payroll taxes). Figure 24 shows that the average tax wedge for single taxpayers earning the average wage amounted to 41.1% of total labour costs in 2013. Employer SSCs in particular accounted for about 24% of total labour costs in the Slovak Republic against an average of 14.3% in the OECD.

Figure 24. Average tax wedge and its components for single taxpayers earning the average wage (as a % of labour costs), 2013



Source: OECD Taxing Wages (2014)

In addition to the tax wedge components in Figure 24, non-tax compulsory payments (NTCPs) further raise the compulsory payment burden on labour income. Employees in the Slovak Republic have the option to participate in the second private pension pillar. All employees pay the same amount of SSCs but four percentage points of employer old-age insurance contributions are transferred to second-pillar funds if employees decide to contribute to it. As these contributions are not necessarily paid to the government (depending on whether employees decide to participate in the second pillar or not), they are not considered as taxes but as NTCPs. NTCPs are compulsory payments that are made to the private sector instead of the government but which increase the employer's total labour costs and decrease the employee's net-take home pay in a similar way as taxes. The rest of the analysis therefore compares compulsory payment wedges, which include NTCPs, as opposed to usual tax wedges.

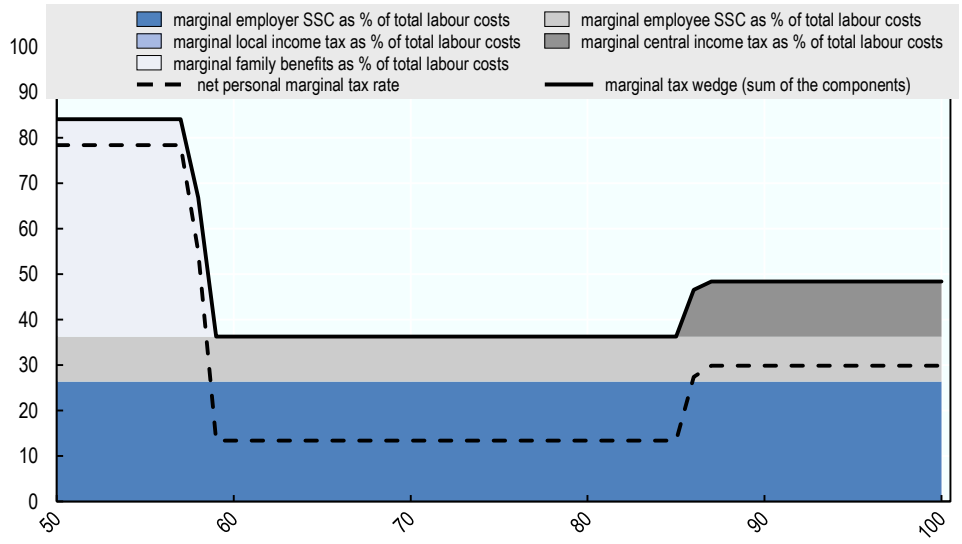
The Slovak Republic's high compulsory payment wedge may be particularly problematic in light of the country's low level of skills. If labour costs are set too high relative to workers' productivity, the demand for labour will decrease. High employer SSCs are likely to price low-skilled workers out of the labour market and this effect will be even more pronounced in countries where skills levels are low. This is the case of the Slovak Republic which demonstrates relatively weak performance in OECD skills-related assessments. For instance, it ranked in the bottom 25% among OECD countries on the PISA mathematics and reading assessments which test the competencies of 15 year-olds. These low levels of skills are likely to affect the productivity of the labour force in the future – there is a positive correlation between PISA and PIAAC results, the latter measuring competencies of adult workers – and, in turn, low productivity combined with high labour costs could generate more unemployment.

To effectively reduce the risks of rising unemployment and raise the number of labour market participants, two complementary approaches should be adopted. First, labour force productivity, particularly at low skills levels, should be increased through reforms and investments in education and training. These efforts would require structural changes and only have effects over the longer run. In addition to the government, the business sector plays an important role in raising the skills of the labour force. In the shorter run, efforts could focus on lowering the tax wedge for low-paid and low-skilled workers to ensure that the costs of employing them are not excessive relative to their productivity (see section 3.3).

Tax provisions targeted at families and children are generous but their design has to be improved

The tax unit in the Slovak Republic is the individual; there is no joint taxation. There are tax and transfer provisions aimed at supporting families including a spouse tax allowance as well as a refundable tax credit and cash transfers for dependent children. The spouse tax allowance is set at the same level as the basic allowance and decreases with income. The refundable tax credit for each dependent child amounted to about EUR 255 in 2013. Finally, each dependent child was eligible to cash transfers in the amount of EUR 277 per year in 2013. These tax and transfer provisions lower the tax burden on families with children considerably below the tax burden faced by single taxpayers without children (Figure 26). It should be noted, however, that as of 2013 the conditions to be entitled to the spouse allowance were made more restrictive. The spouse allowance is now limited to a spouse who takes care of a child up to three years old (or six years old if the child is disabled), or receives a nursing allowance or is unemployed or disabled.

Figure 25. Marginal compulsory payment wedge by level of gross earnings between 50% and 100% of the average wage for a one-earner married couple with two children

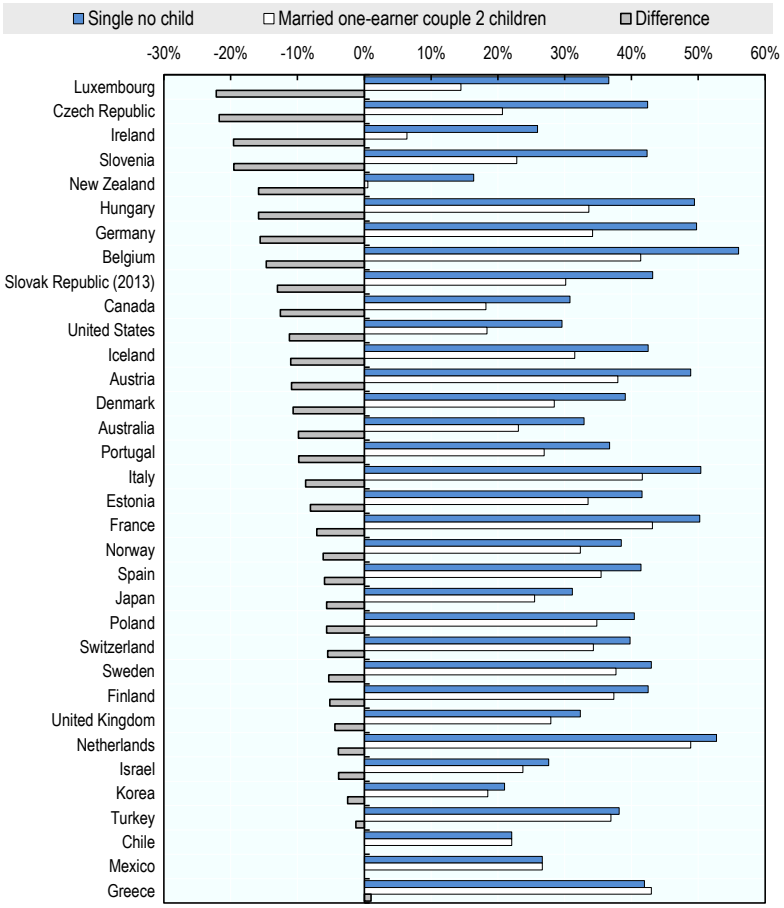


Source: OECD Taxing Wages (2014)

In addition, low-income families receive social benefits varying with the type of family (i.e. single taxpayers versus married couples), the number of children and the level of family income. For instance, a low-income single taxpayer received social benefits in 2013 of EUR 60.5 per month, while a couple with two children received EUR 157.6 per month. Because these social benefits are withdrawn quickly when income rises, they result in very high marginal tax rates for certain family types. One-earner married couples earning between 50 and 60 per cent of the average wage in 2013, for instance, face a marginal

compulsory payment wedge of over 80 per cent (Figure 25). The design of these benefits, in particular the very high withdrawal rate, should therefore be evaluated as they reduce incentives to work and create a low-income trap for certain families.

Figure 26. Average compulsory payment wedges of single taxpayers without children and one-earner married couples with 2 children earning the average wage (as % of augmented total labour costs[9]), 2013



Source: OECD Tax Database (2014)

The 'flat' PIT system was abolished in 2013

As of 2013, the 19% flat PIT that was introduced in 2004 was replaced by a progressive tax. Annual income of up to four times the average wage (EUR 40,441 in 2014) continues to be taxed at the rate of 19% while income above this threshold is now taxed at the rate of 25%. This change was in part driven by a growing consensus amongst the population that the government should play a more active role in income redistribution (Peichl, 2013) even if the Slovak Republic has one of the lowest levels of income inequality in the OECD (OECD, 2013c).

As most other OECD countries, the Slovak Republic exempts a minimum amount of income from tax. The basic allowance in the Slovak Republic amounts to 37.4% of the average wage in 2014. As employee SSCs are deductible from the PIT base, up to 43% of the average wage is effectively not taxed under the

9 Augmented total labour costs are equal to gross wage earnings plus employer SSCs and employer NTCPs.

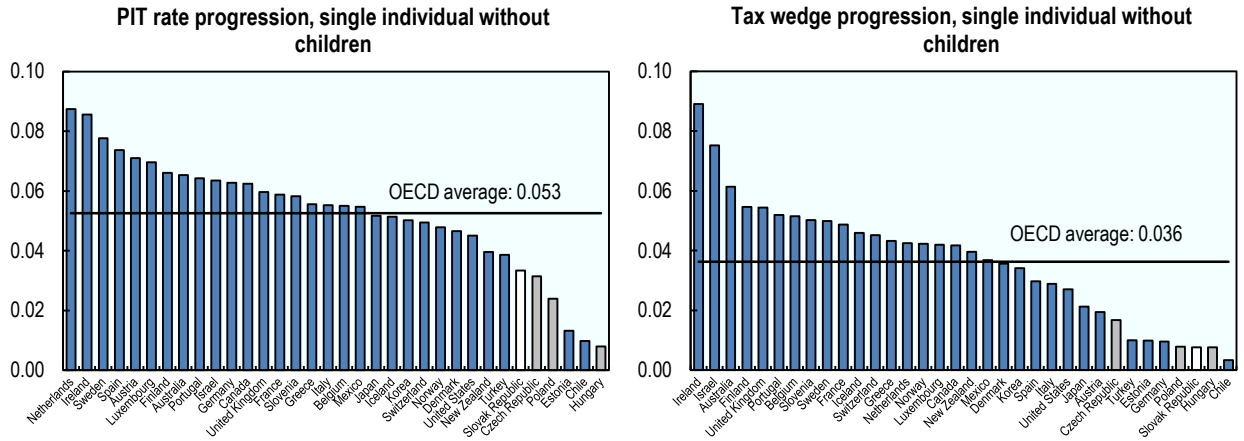
PIT. The basic allowance is gradually reduced when earnings exceed 2.25 times the average wage and fully eliminated when gross earnings reach about four times the average wage.

Taxpayers are also eligible for a refundable employee tax credit which is targeted at low-income workers whose wages are subject to social and health insurance contributions. The amount of the tax credit depends on the employee's earnings and the number of months worked during the year. The highest annual amount was EUR 181 in 2009 when the tax credit was introduced but it was legislated to decrease over time along with the reduction of the gap between the minimum wage and the basic allowance. The tax credit was EUR 43 in 2013 (i.e. about 0.05% of the average wage). The foregone revenue of this tax expenditure declined significantly over time (from EUR 25 million in 2009 to EUR 3.5 million in 2013) because of the reduction in the value of the credit but also because the take-up rate decreased considerably. An in-depth evaluation of the employee tax credit is needed. One option would be to integrate part of the cash transfers for low-income families into the tax credit in order to strengthen incentives to work.

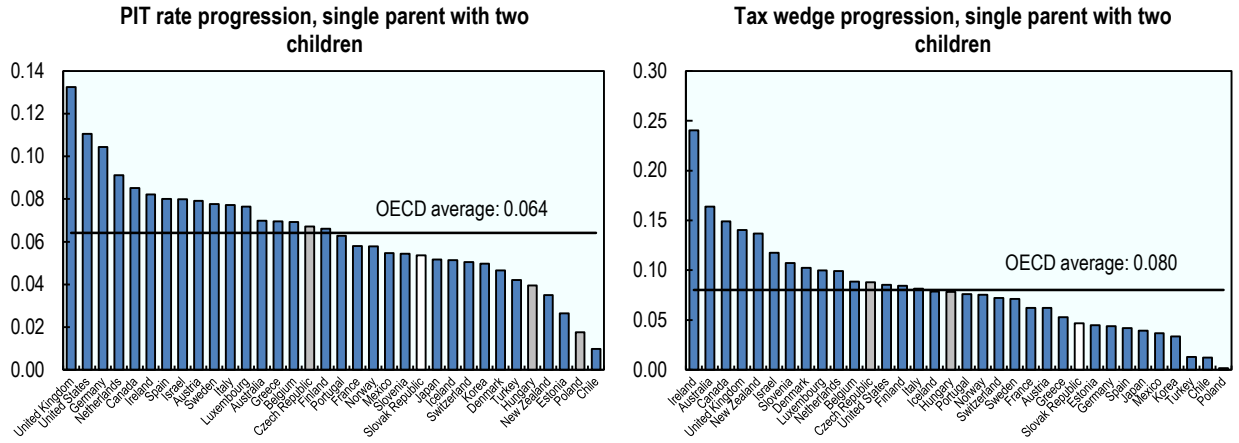
The 2013 tax reforms raised tax wedges for high-income earners

Prior to 2013, the Slovak labour income tax system was among the least progressive in the OECD (Figure 27). This was in large part the consequence of the 19% flat PIT. Single taxpayers without children in the Slovak Republic faced especially low progression rates. The income tax system was more progressive for single parents with two children because of the refundable child tax credit.

Figure 27. Overall average PIT rate (left-hand panels) and tax wedge progression[10]



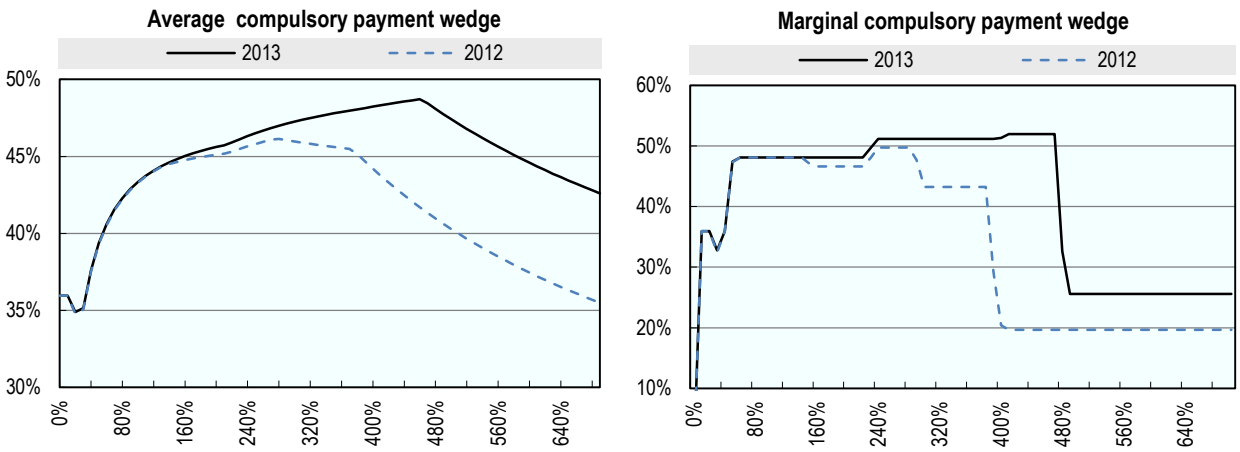
10 Average-rate progression between income levels Y_0 and Y_1 is calculated as follows: $(T_1/Y_1 - T_0/Y_0)/(Y_1 - Y_0)$ where Y_0 is 50% of the average wage and Y_1 is 500% of the average wage and T_0 and T_1 are the corresponding tax liabilities (respectively the average PIT or the average tax wedge).



Source: OECD Taxing Wages (2014)

The 2013 reforms have increased the tax burden on high-income earners. Indeed, the introduction of a second tax bracket, combined with the increase in the SSC ceiling[11] and the restrictions to the spouse allowance (see Box 2 for more details) have resulted in higher compulsory payment wedges for high-income individuals (Figure 28). Marginal compulsory payment wedges increased by about 30 percentage points for those with earnings between 4.1 and 4.7 times the average wage (Figure 28). For individuals earning more than 4.7 times the average wage, the average compulsory wedge starts declining beyond that level.

Figure 28. Compulsory payment wedges (as % of augmented labour costs) for single individuals across different wage levels (expressed as % of average wage) in the Slovak Republic, 2012 and 2013



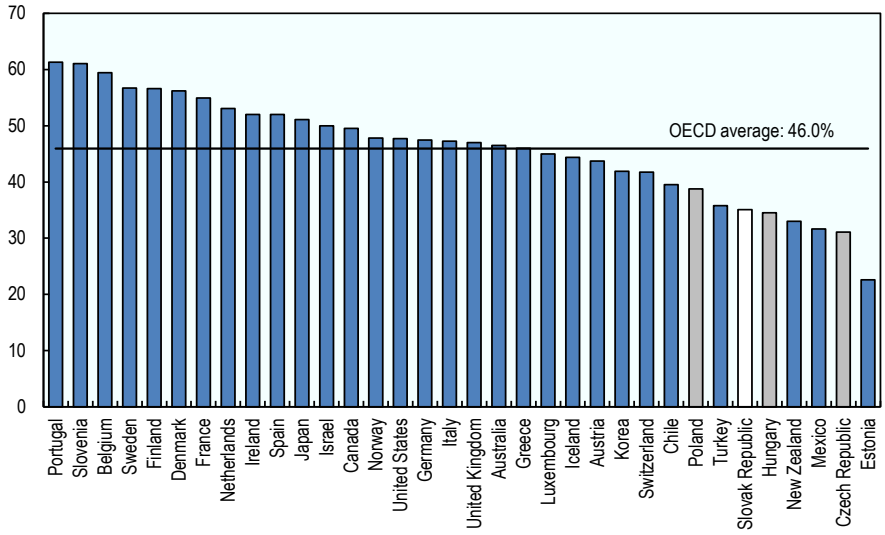
Source: Authors' calculations

The top all-in marginal tax rate, which takes into account PIT and employee SSCs at the income level where the top PIT rate starts being levied, increased from 30% in 2012 to about 35% in the Slovak

[11] In 2013, ceilings of 1.5 times the average wage for sickness and guarantee contributions, 3 times the average wage for health contribution and 4 times the average wage for remaining contributions were replaced with a single ceiling equal to 5 times the average wage.

Republic in 2013. Nevertheless, it continues to be lower than the top all-in marginal tax rates in most other OECD countries (Figure 29) because the Slovak top PIT rate of 25% remains significantly lower than the OECD average top statutory PIT rate of 43.3%. The Slovak threshold of four times the average wage is similar to practice in the OECD where, on average, the top PIT rate is levied on income exceeding 4.8 times the average wage. The relatively low top all-in marginal rate suggests that even if the level of (statutory tax) progressivity may have increased with the 2013 reforms, it is likely to have remained relatively low.

Figure 29. Top all-in (PIT and employee SSC) marginal rate, 2013



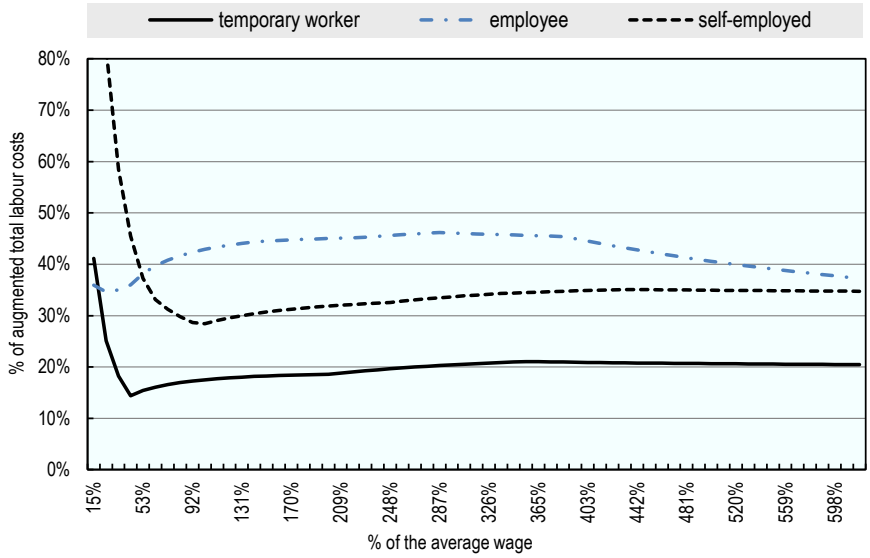
Source: OECD Tax Database (2014), Hungary, Czech Republic and Estonia apply a flat tax rate.

The 2013 SSC reforms reduced distortions between different labour contracts

Until 2013, there were significant discrepancies in the tax treatment of different types of labour contracts. Temporary and self-employed workers benefited from lower tax and compulsory payment wedges than regular employees. Up until 2012, the compulsory payment wedge for temporary contracts, which were originally meant to increase labour market flexibility by reducing administrative procedures, lowering the degree of employee protection and exempting employees from SSCs, was roughly half of the compulsory payment wedge for employees.

The compulsory payment wedge for self-employed workers was about 25% lower than the wedge for employees (Figure 30). The lower tax wedge for the self-employed is the result of a tax base adjustment that aims at treating self-employed workers and employees similarly for SSC purposes. As the applied "equalisation coefficient", which reduces the tax base for self-employed workers, was overly generous, the tax burden on self-employed income ended up being considerably lower than the tax burden faced by regular employees, except for self-employed with low earnings who have to pay a minimum SSC irrespective of actual income earned; such a lump-sum minimum SSC is not paid by regular employees who pay SSCs on their actual earnings only.

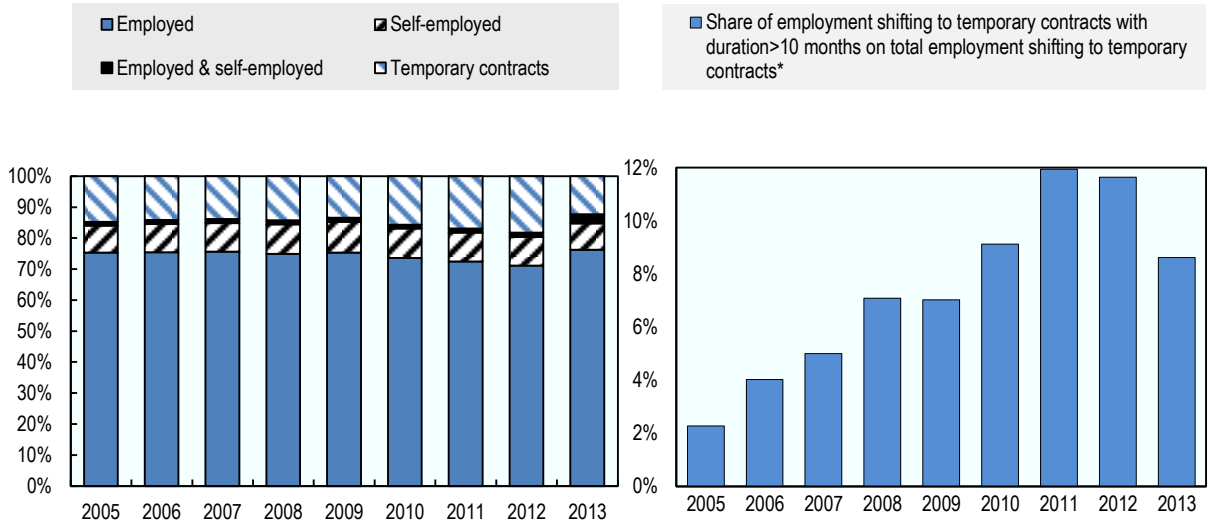
Figure 30. Compulsory payment wedges on different types of labour income (as % of augmented total labour costs) at different levels of income (expressed as % of the average wage) in the Slovak Republic, 2012



Source: Authors' calculations

Partly as a result of their favourable tax treatment, the use of temporary contracts became more frequent. Their share increased from around 14% between 2005 and 2009 to more than 18% of total labour contracts in 2012 (Figure 31, left-hand panel). This increase was accompanied by a corresponding decrease in the number of employees with regular labour contracts. An analysis based on individual data from the Social Insurance Agency confirmed the increase in temporary contracts at the expense of regular employment contracts. While in 2005 only 2% of the newly created temporary contracts replacing regular employment contracts had a duration of more than 10 months, this share rose to almost 12% in 2012 (Figure 31, right-hand panel).

Figure 31. Shares of individuals by labour arrangements (left-hand panel)[12] and employment shifting (right-hand panel) in the Slovak Republic, 2005-2013



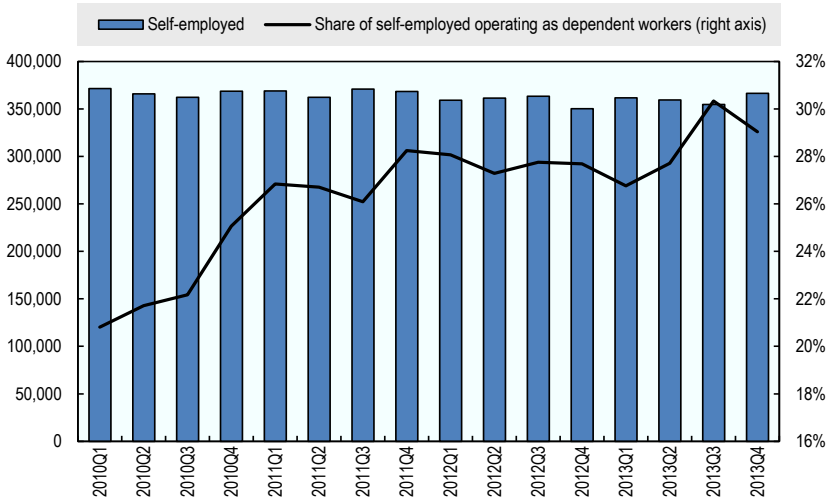
Source: Social Insurance Agency, IFP calculations

Similarly, the favourable tax treatment of self-employed workers led to an increase in the number of regular employment contracts disguised as self-employment contracts. According to Labour Force Survey (LFS) data, the share of the "dependent self-employed"[13] increased from 21% in the first quarter of 2010 to 27% in the first quarter of 2014 (Figure 32). That means that more than a quarter of the self-employed in the Slovak Republic in 2014 were in reality operating as dependent workers.

12 The category "employed & self-employed" refers to workers for who both employment and self-employment income are non-negligible.

13 The category "dependent self-employed" is based on a question that was asked for the first time to self-employed workers with no employees in the LFS in 2010. The question sought to identify the self-employed workers whose work would actually qualify as employee work (e.g. little or no more autonomy than regular employees, dependent relationship with one firm).

Figure 32. Number of self-employed workers and share of self-employed workers operating as dependent workers, 2010-2013



Source: Statistical Office of the Slovak Republic, LFS

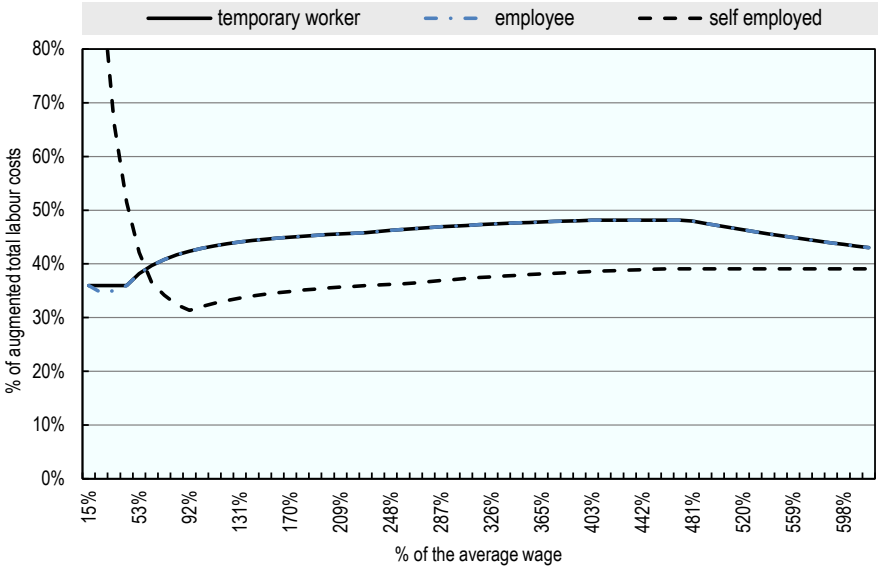
To counter these trends and simplify the SSC system, the Slovak government introduced in 2013 measures to reduce the discrepancies between the taxation of different labour arrangements. The maximum assessment bases for the calculation of SSCs (except for accident insurance, which is not capped) were harmonised and raised to five times the average wage[14] for all types of labour income including self-employment income. In the case of self-employed workers, the minimum assessment base was raised, the deduction of SSCs from the assessment base was abolished and the calculation of the assessment base was modified as well. Finally, the SSC exemption for labour income from temporary contracts was eliminated.[15] Figure 33 shows the impact of the reforms on the effective tax burden on the different types of labour contracts. The compulsory payment wedge on income from temporary contracts became equal to that of employees and the difference between the compulsory payment wedge on the self-employed and employees decreased from 25% to 20%. The labour market reacted relatively quickly, especially to the increase in the tax burden on income from temporary contracts; Figure 31 shows that the share of temporary contracts decreased to about 12%.

Nevertheless, further reforms may be needed as the effective tax burden on self-employed income remains significantly lower than on employee income. Additional differences also continue to make the system more favourable to self-employed workers. The self-employed can deduct their costs from taxable income. Although there are valid economic justifications for this tax treatment, it may create opportunities for tax evasion as private expenses can be mischaracterised as business expenses. Taxpayers may also choose to deduct a lump-sum amount of expenses equal to 40% of revenues (up to EUR 5,040 annually, i.e. half of the annual average wage). This provision may induce employees to become independent contractors.

14 The increase in the maximum assessment base had no effect on the amount of payable benefits.

15 Some exceptions remain, mainly to protect vulnerable groups.

Figure 33. Compulsory payment wedge on different types of labour income (as % of augmented total labour costs) at different levels of income (expressed as % of the average wage) in the Slovak Republic, 2013



Source: Authors' calculations.

Finally, it should be noted that while the increase in SSCs for temporary and self-employed workers was a positive step as these workers are now included in the social security system and entitled to social benefits, it has led to higher tax burdens on low-income earners. The higher tax burden on low-income earners has also been reinforced by the limitation in the spouse allowance which has mostly affected the second and third income deciles. Remeta (2014) suggests that overall tax progressivity may have in fact decreased slightly in 2013. His analysis takes into account the overall impact of the 2012-2013 tax reform measures on all households and different types of earnings across income deciles as well as the changes in the distribution of market income over the 2012-2013 period (see also Annex 5).

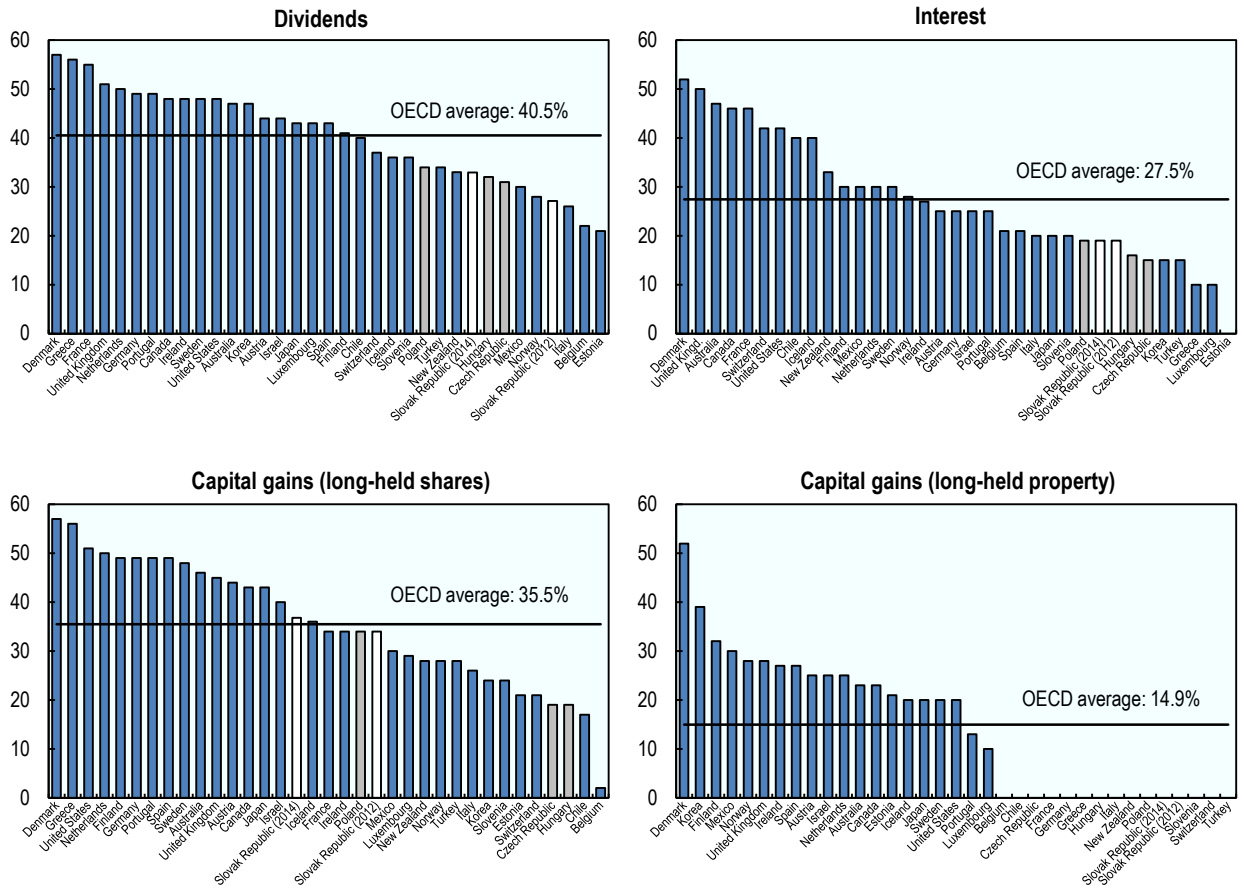
Taxes on personal capital income

Because of the mobility of capital, small open economies should take into account the tax rates on capital income in neighbouring countries in order to prevent domestic capital from being invested abroad. Nevertheless, the recent trend towards the automatic exchange of information (AEIO) for tax purposes will limit opportunities for tax evasion in the near future. Indeed, the AEIO may provide an opportunity to raise the taxes levied on capital income at the personal level. In terms of efficiency, the tax treatment of personal capital income in a small and open economy like the Slovak Republic should have little impact on the cost of capital for firms (particularly MNEs) with access to international capital markets. However, it could influence the cost of capital for smaller firms which face more difficulties in attracting funding.

The tax burden on capital is lower than the taxation of labour and differs across types of capital income

The Slovak Republic belongs to the majority of OECD countries with a semi-dual income tax system. The tax burden on labour income is high (mainly because of high SSCs) compared to the tax burden on capital. In international comparison, the Slovak Republic taxes capital income lightly (with the exception of capital gains from shares) (Figure 34).

Figure 34. Combined statutory tax rates on capital income (%) in OECD countries in 2012 and in the Slovak Republic in 2012 and 2014



Source: Harding (2013), Authors' calculations. Note: The Slovak tax rate on dividends includes health contributions on dividends but the maximum effective assessment base is not taken into account.

Different types of capital income are also taxed differently. Capital gains are taxed at the personal shareholder level with the corresponding progressive PIT rate structure depending on the amount of income (19% or 25%). There is a 19% withholding tax rate for interest. With regard to dividends, they were made tax exempt in 2004 but this was partially reversed in 2011 as dividends became subject to a health contribution rate of 10% with the tax base being capped at three times the average annual wage. The rate was increased to 14% and the cap to five times the average wage in 2014. The health-insurance cap means that high-income shareholders face a lower average effective tax rate on dividends than middle-income shareholders. Because dividends are taxed more lightly than capital gains, shareholders will prefer to receive lower-taxed dividends instead of higher-taxed capital gains. A further increase in the tax rate levied on dividends at the personal shareholder level could therefore be considered.

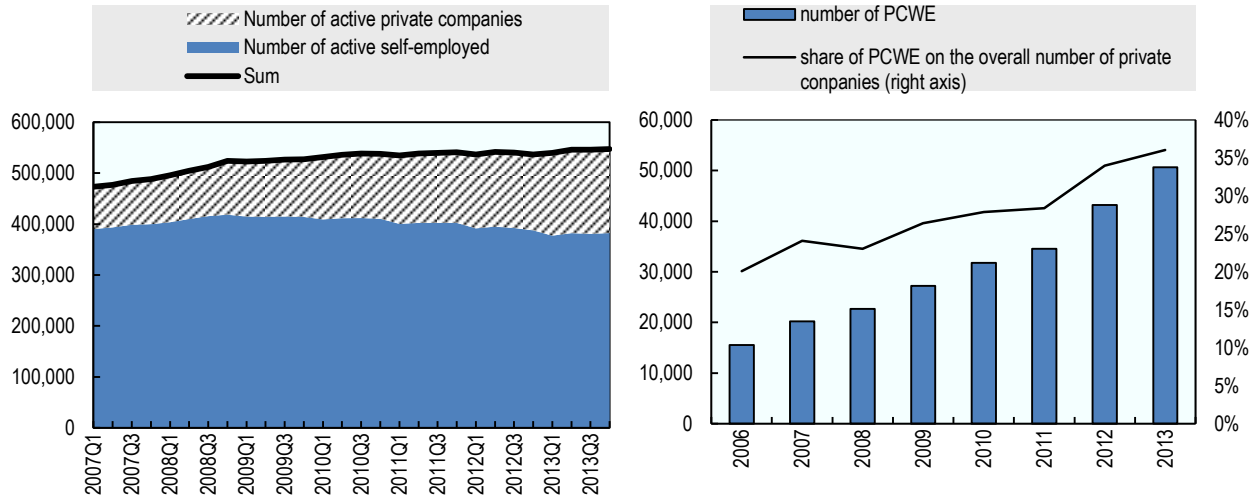
The tax system creates incentives for self-employed workers to incorporate

The difference between labour and capital income taxes creates incentives for business owners to incorporate. Incorporating enables them to distribute dividends instead of paying wages in order to minimise their tax liability. The recent reforms, with the introduction of a 25% top PIT rate and the increase in the SSC ceiling, further increased the difference between labour and capital income taxation and thus reinforced incentives to incorporate. De Mooij and Nicodème (2007) found that an increasing gap

between PITs and CITs has a significant positive effect on the incorporation of new and existing firms and these results are confirmed by recent evidence from the Slovak Republic. Although there are higher compliance costs associated with incorporation, Slovak self-employed businesses are indeed changing legal forms (Figure 35, left-hand panel).

The Slovak Republic could follow good practices from Nordic countries to limit the tax-induced incentives for self-employed workers to incorporate. Countries with a dual income tax system, such as Nordic countries, typically distinguish between labour and capital income from self-employment and tax those two components separately. Because the Slovak Republic has a form of dual income tax system, a similar tax treatment may be considered.

Figure 35. Change in the employment structure: self-employment and private companies (left-hand panel) and private companies without employees (PCWE) (right-hand panel)



Source: Statistical Office of the Slovak Republic

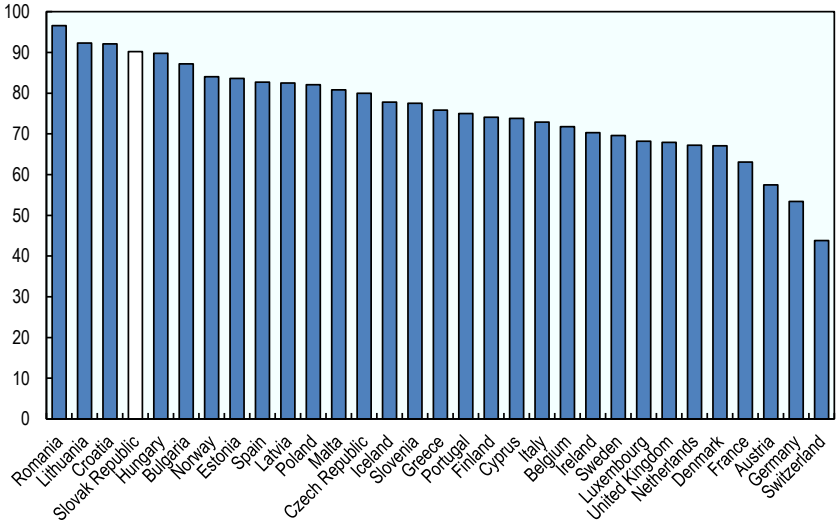
The Slovak tax system encourages pension savings and property ownership

In the Slovak Republic, pension savings (including voluntary contributions to the second pillar up to the certain limit) are taxed under a very favourable 'exempt-exempt-exempt' (EEE) system. This means that pension contributions are deductible from taxable personal income (although the tax benefits for voluntary contributions made to a private pension fund are capped), pension funds are not taxed on their return on investment and pensions received from both the public and private systems when taxpayers retire are not taxed either. The exception is the third private pension pillar (including voluntary contribution up to EUR 180 per year) where pension funds' capital gains are taxed. Empirical studies (e.g. Attanasio et al., 2004) have found that favourable tax treatments for pension savings lead to shifts in savings portfolios – away from direct household savings towards tax-favoured pension savings – without increasing overall household savings.

Property ownership is also encouraged by the tax system. Capital gains from the disposal of immovable property are tax exempt if taxpayers have owned the property for at least five years before the sale. Slovak households therefore face a strong tax-induced incentive to invest in a property – the return of which is not taxed at all – instead of buying corporate bonds or shares (Figure 36). This tax-induced distortion will make it more difficult and expensive for Slovak businesses, particularly small and young firms, to attract external financing. The rationale for this exemption is weak as it biases individuals' portfolios in favour of real estate and higher homeownership and may eventually constrain residential and

labour mobility (Andrews *et al*., 2011); this is an issue in the Slovak Republic where low regional mobility feeds the country's high regional inequality. An increase in immovable property taxation which is currently low (see Figures 4 and 5) could have a positive impact on capital and labour markets as well as generate additional revenues.

Figure 36. Share of the population living in owner-occupied housing, 2011



Source: Eurostat

Chapter 3

OVERVIEW OF SELECTED RECENT TAX REFORMS IN THE SLOVAK REPUBLIC

This chapter gives an overview of a selection of recent tax reforms undertaken in the Slovak Republic. The analysis focuses on the measures to tackle valued-added tax (VAT) fraud, the minimum corporate income tax (CIT) and the social security contribution (SSC) exemption for the long-term unemployed. Some of the VAT measures have been effective since 2013 and the SSC exemption took effect in November 2013 but most of the changes described below received legislative approval at the end of 2013 and became effective only as of 2014.

3.1 VAT counter-fraud measures

The government is implementing an action plan to combat tax fraud

As a response to the widening VAT gap, the Slovak government approved an "Action Plan to Combat Tax Fraud in 2012-2016" which contains numerous measures to combat VAT evasion. The first two phases of the Action Plan have already been implemented (Box 9). Measures in the first phase focused on cleaning up the VAT registry, limiting system abuses by new applicants and preventing the most obvious fraud schemes. In the second phase, the administration established processes to fight internal corruption and detect fraud. For instance, joint teams of representatives from the tax office, the police and prosecution services, known as the 'tax cobra', were set up to detect major fraud cases. The third-stage measures were approved in October 2014. These measures include the introduction of a taxpayer risk-rating system and the obligation to indicate the risk-rating on tax documents, the establishment of a register of persons previously acting in fraudulent companies, the establishment of an insolvency register, and the introduction of more stringent conditions in the Bankruptcy and Arrangement with Creditors Act. Finally, the obligation to use cash registers was extended to doctors and other professions (experts, scientific and technical activities and accommodation services).

Box 8. VAT measures in the "Action Plan to Combat Tax Fraud in 2012-2016" - Stages 1 and 2

Measures introduced in the first stage (effective as of 1 October 2012):

- The obligation for high-risk persons to deposit a financial guarantee upon their registration for VAT purposes. The risk assessment is based on their previous participation in tax fraud and the deposit is based on their risk profile.
- The withdrawal of VAT registration for persons who fail to comply with their legal obligations or to cooperate with the tax administration.
- A public list of high-risk businesses.
- A mandatory monthly tax period for new VAT payers applicable for 12 months and a reduction of the turnover threshold for monthly taxpayers.
- Tax guarantees in the case of imports from third countries. Imports from third countries entering the Slovak Republic but destined to other EU countries are VAT exempt in the Slovak Republic, which has encouraged tax fraud. The newly established guarantee will be reimbursed only after a proof that products have reached their final destination has been submitted.

Measures introduced in the second stage (effective as of 1 October 2013):

- A tight tax supervision regime over high-risk businesses
- A VAT receipts lottery (see below for more detail)
- The obligation to use non-cash payments in business transactions exceeding EUR 10,000.
- A programme to combat corruption within the tax administration.
- The obligation to file inland recapitulative statements together with VAT returns as of January 2014. Recapitulative statements contain details on all the transactions in a given tax period.

Other measures:

- The extension of the domestic reverse charge mechanism to high-risk commodities typically used in tax fraud schemes such as grain, mobile phones, iron, steel etc. (effective as of January 2014).

VAT receipts lottery

Customers who wish to participate in the lottery fill in a lottery ticket with the identification number of the seller from the VAT receipt. The lottery takes place twice a month. Every fortnight, 10 winners win cash prizes of up to EUR 10,000 while another eight can win material or financial prizes including a new car once a month. There is no relation between the prize and the value of the VAT receipt.

The tax administration uses the seller identification from lottery tickets in subsequent audits. In the case of the winning receipt, the tax administration performs an automated audit to check whether the receipt was included in the tax return of the seller. The validity of other receipts (if they were issued by the registered cash register) is automatically screened by the system.

The VAT receipt lottery is one of the tools to tackle VAT evasion

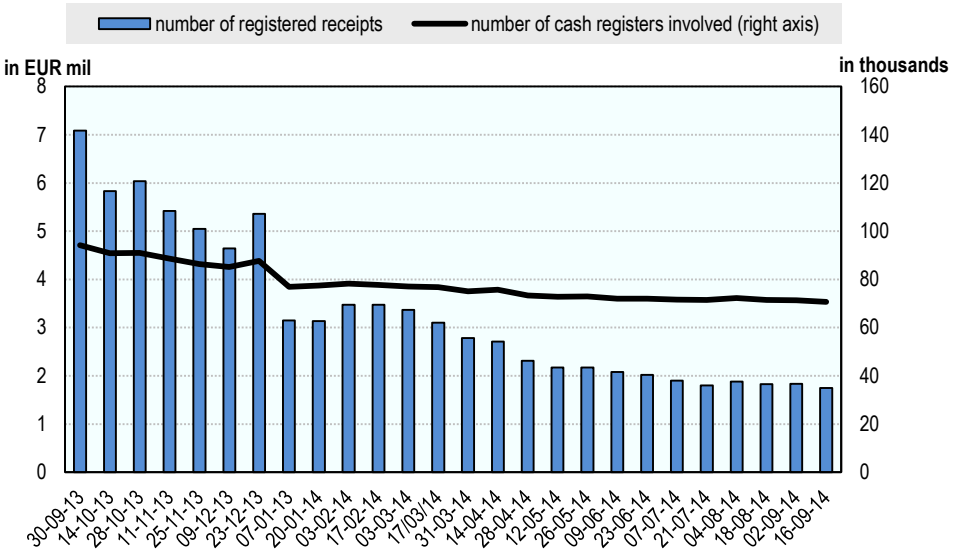
In September 2013, the government also launched a VAT receipt lottery through which citizens can win prizes if they register valid cash receipts. It may be assumed that the positive effect of the lottery on customers would be mostly in areas where the benefit of non-compliance is not distributed to customers (e.g. restaurants, small groceries). The lottery may have a more limited impact when the benefit of non-compliance is distributed between both sellers and consumers (e.g. services such as cars repairs, additional furnishing services). Nevertheless, the lottery has the potential to make all citizens aware that VAT evasion is illegal.

An analysis of countries which have introduced similar lotteries does not provide clear-cut evidence on their impact on tax revenues. In the case of Chinese Taipei and China, an increase in VAT revenues was recorded soon after the introduction of the lottery (Wan, 2006). However, the lottery was introduced in an environment which differed considerably from the Slovak Republic's (e.g. the use of cash registers was limited). Malta has operated a VAT receipts lottery for more than ten years but has not identified a clear effect on tax revenues. In Georgia, the lottery was cancelled seven months after its launch because of its poor impact on revenues.

In the Slovak Republic, in the two weeks preceding the first draw of the lottery, 252,000 people registered more than seven million cash receipts (Figure 37). Participation gradually declined, with the exception of the December draw as purchasing activity increased, and has stabilised at the average level of 2 million registered receipts per draw in 2014. From its launch up to the 26th draw in September 2014, more than 450,000 consumers had registered nearly 87 million of receipts. Due to the decline in

participation, a few improvements (e.g. more frequent drawings, more prizes with lower value) have been introduced to attract more consumers since the end of September 2014.

Figure 37. Number of registered receipts



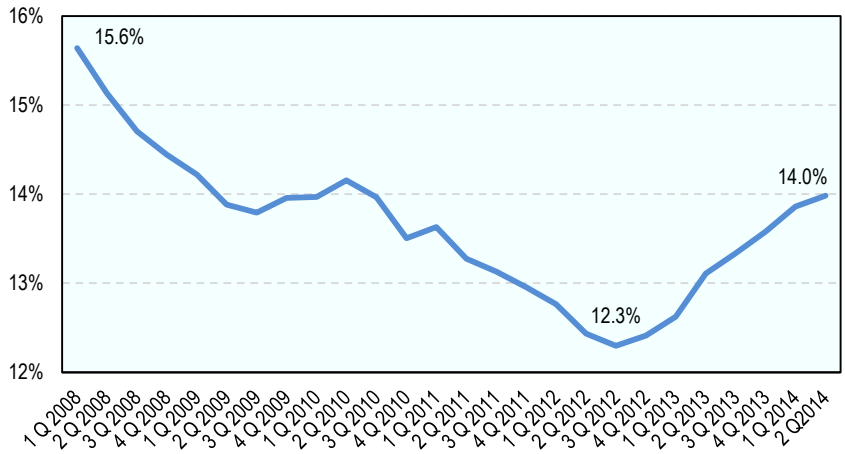
Source: Financial Administration of the Slovak Republic, IFP

Because the Slovak government adopted several measures to reduce VAT evasion in 2013, the impact of the lottery itself is difficult to estimate. Nevertheless, there is some evidence that the lottery has had positive effects on compliance. First, the very large number of receipts received in the first draw indicates that the lottery succeeded in raising awareness. In addition, an empirical analysis of the IFP estimating the provisional effects of the lottery shows an increase in revenues in the fourth quarter of 2013 of EUR 2 million (about EUR 8 million per year or 0.01% of GDP). To further strengthen the lottery's effectiveness, the government could consider targeting it at sectors where VAT gaps are most prevalent as well as including invoices from services where the use of cash registers is not obligatory.

Evidence suggests that the VAT counter-fraud measures may have had a positive impact

A detailed empirical analysis of the impact of the VAT counter-fraud measures is still lacking but evolutions in the VAT effective tax rate (ETR) might indicate that they have had positive results. Between 2008 and 2012, the ETR (adjusted for tax rate changes) gradually decreased (Figure 38). The trend reversed in 2013, with strong increases in the second and third quarters of 2013. The increase in the ETR represents additional revenues of EUR 241 million (0.32% of GDP) and may in part reflect the effect of the VAT anti-fraud measures. There is also preliminary evidence that the tax administration is evaluating more carefully VAT refund claims.

Figure 38. VAT effective tax rate[16] in the Slovak Republic, 2008-2014



Source: IFP

Overall, the measures adopted by the Slovak government to combat VAT fraud are a step in the right direction. The new measures which have been approved in October 2014 are also likely to lead to further improvements. Nevertheless, the Slovak VAT gap remains well above VAT gaps in other OECD countries (see Figure 11). Further analysis will be needed to assess the impact of the recently adopted VAT counter-fraud measures.

3.2 The minimum corporate income tax

As of 2014, the Slovak Republic introduced a minimum tax for the incorporated sector (see Box 10). The amount of the minimum CIT depends on the company's turnover and VAT registration status. It was accompanied by a reduction in the CIT rate from 23% to 22% and a tightening of loss carry-forward provisions from a seven to a four-year period.

The minimum CIT aims at tackling the relatively high level of CIT non-compliance (see section 2.3) and at increasing tax revenues. the Slovak Republic faced a steady decrease in the implicit tax rate (ITR) on capital and a relative stagnation of the CIT-to-GDP ratio while gross operating surplus and accounting income were growing, at least before the crisis. Mitigating non-compliance by strengthening the tax administration's capacity would be the first best option to increase CIT revenues but this can only be achieved in the medium run. In the short run, the Slovak government opted for a minimum CIT to target primarily non-compliant companies. The measure is expected to raise CIT revenues by EUR 112 million (0.15% of GDP) in the first year, which would more than offset the general CIT rate reduction introduced in 2013.

[16] The VAT effective tax rate is calculated in a similar way as the ITR on consumption, i.e. value added tax revenues divided by the sum of household final consumption and government expenditures on goods and services and governments investment

Box 9. The minimum corporate income tax in the Slovak Republic

There are three levels of minimum corporate income tax in the Slovak Republic, depending on turnover and VAT registration.

Corporation	Minimum annual CIT
Small corporations, not registered to VAT	EUR 480
Small corporations, registered to VAT	EUR 960
Large corporations (turnover over EUR 500,000)	EUR 2,880

These amounts have to be paid if the tax calculated based on the actual taxable income using the 22% rate is lower. The minimum tax is paid as the ordinary CIT, i.e. when tax return is filed. The difference between the minimum tax and the tax calculated based on taxable income may be carried forward and credited to tax liability up to 3 years.

The minimum tax is reduced by half if at least 20% of taxpayer's employees are disabled. The minimum tax does not apply to new companies in their first year of operation. Non-profit organisations as well as social enterprises specialising in employing disabled workers are exempt from minimum corporate income tax.

There are justifications for introducing a minimum CIT. It might be viewed as mitigating the violation of horizontal equity by non-compliant firms which pay lower taxes than compliant companies in a similar position. Moreover, even companies in a loss position benefit from public services and a minimum CIT could be seen as a minimum fee for the public services they benefit from. Finally, it may help clean up the business register as almost 10% of the corporations in the register are inactive and thus increase the efficiency of the tax administration's auditing activities.

However, a minimum CIT is not a first-best tax policy option. It violates horizontal equity in the case of compliant companies as all companies below a certain amount of financial profit pay the same amount of tax. It generates economic inefficiencies and creates obstacles for credit-constrained companies with low profits to invest (although this might not be an issue in the Slovak Republic as the minimum CIT is very low). It may also give the impression that tackling CIT evasion is no longer a priority for the government as all firms start paying a minimum amount of CIT and that avoiding CIT is acceptable as long as firms pay the minimum CIT (i.e. it puts a price on tax evasion which signals that tax evasion is accepted). Finally, a minimum CIT increases administrative and compliance costs.

It should be noted, however, that the carry-forward rule of the minimum CIT in excess of the CIT calculated according to the regular rules mitigates its distortive effect. The minimum tax can then be seen as a pre-payment of the regular CIT, at least for companies that will pay CIT in the future. Companies are also exempt in their first year of existence. It gives newly established companies a possibility to offset the second year's minimum CIT in their fifth year at the latest if they become profitable by that time.

Another element of the 2014 CIT reform was the reduction of the loss carry forward period from seven to four years with a maximum annual loss deduction set at 25% of the accumulated losses. There is no optimal period of loss carry forward; international comparison reveals that carry forward provisions differ in relation to the length of carry-over and in the amount which can be relieved in any year (Annex 3). Out of 28 European countries, fifteen have indefinite loss carry forward periods, but since eight of them provide quantitative limitations on the amount of losses that can be deducted each year, pure indefinite loss carry forward is applicable in just seven EU countries.

3.3 Targeted social security exemption for the long-term unemployed

As mentioned in section 2.4, high labour costs reduce labour demand, particularly for low-productivity and low-skilled workers. Because of high SSCs and relatively low skills levels in the Slovak Republic, many low-skilled workers are priced out of the labour market. This lack of demand for low-skilled workers is further exacerbated by competition from neighbouring countries with low labour costs.

According to the latest statistics, the Slovak unemployment rate amounted to 14.2% in 2013, compared to an OECD average of 7.8%. The youth unemployment rate reached around 34% in 2013 and attained almost 40% for low-skilled youth, and is among the highest in the EU. Long-term unemployment has the highest share of OECD countries, amounting to about 67% of total unemployment in 2013.

To address some of these issues, the Slovak government introduced in November 2013 a temporary employer and employee social security exemption for the long-term unemployed who get hired for a job that pays below 67% of the average wage. The relief is applicable to the employer and employee's health and social insurance contributions (except for the accidental and guarantee insurance contributions) for the first 12 months of employment. To prevent companies from simply replacing existing workers with long-term unemployed workers, a condition requiring them to retain the same number of employees was introduced to be eligible for the exemption.

This measure seeks to increase labour demand by lowering the tax wedge for low-paid long-term unemployed workers. On the one hand, it reduces the costs of hiring low-paid long-term unemployed workers for employers through the employer SSC reduction. On the other hand, it increases the net take-home pay of employees and encourages them to work through the exemption from employee SSCs.

Table 6. Impact of SSC relief on monthly disposable income and labour costs for long-term unemployed individuals moving to employment (EUR), 2013

	Gross wage	Before November 2013		After November 2013		Difference in labour costs		Difference in net wage	
		labour costs	net wage*	labour costs	net wage*	EUR	%	EUR	%
Minimum wage	337	457	293	341	333	-115	-25.3%	40	13.7%
55% of average wage	443	599	370	447	418	-151	-25.3%	48	13.0%
67% of average wage	539	729	438	545	496	-184	-25.3%	59	13.4%

Source: Authors' calculations. Note: Values are rounded to integer. * Impact of employee tax credit not included (minimum eligibility: 6 months worked).

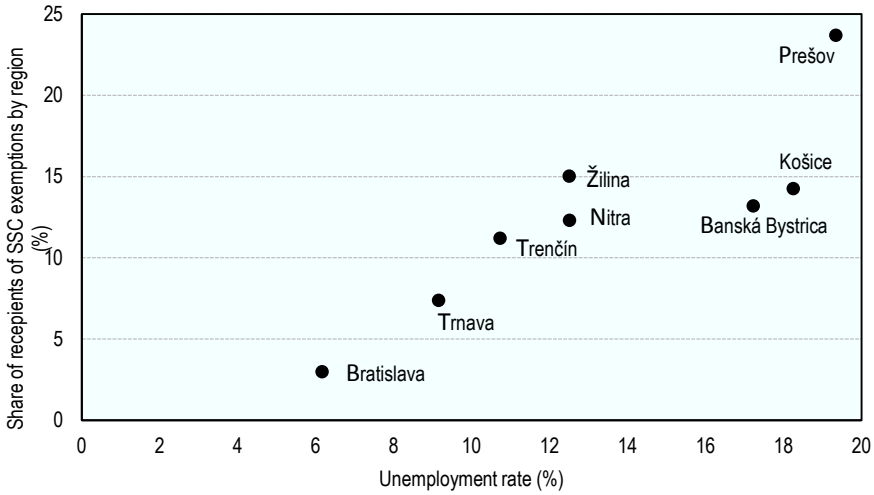
Targeting the tax concession at the long-term unemployed was a way to minimise budgetary costs. For example, an alternative reform introducing a similar SSC reduction for all workers earning 67% of the average wage or less would have resulted in a revenue loss of around 4.4% of GDP (authors' estimate) while the revenue loss caused by the adopted targeted exemption is estimated at 0.01% of GDP. In addition, targeting the measure at low-income workers is in line with a number of studies that find that the largest employment effects from employer SSC reductions are gained when they are targeted at minimum-wage workers (Batyra and Sneessens, 2010). The Slovak government has estimated that up to 15,000 long-term unemployed could benefit from this measure and that the employment rate could increase by 0.6%

(these estimates should be interpreted with caution because of the difficulties in estimating the impact of such reform measures).[17]

The monthly disposable income of an individual earning the minimum wage and benefiting from the adopted measure increases on average by about 13.7% (see Table 7). Labour costs for employers decrease by 25.3%. At the same time, the transition of long-term unemployed workers into employment is expected to reduce the amount of social transfers that they receive by 65.2%.

The impact of the measure so far has been mixed. On the one hand, provisional results show that only 3,875 previously long-term unemployed workers benefited from the temporary SSC cut in the first nine months following its introduction, which is far below the 15,000 participants per year that were expected. On the other hand, the measure seems to be relatively well targeted: the majority of employees benefiting from the SSC exemption work in the eastern regions of the Slovak Republic which are characterised by the highest unemployment rates (Figure 39) and more than 40% of the long-term unemployed hired through the scheme had been unemployed for two or more years.

Figure 39. Provision of the temporary SSC exemption by regions, 2014



Source: Strizencova and Zudel (2014)

Going forward, the impact of the SSC exemption on job creation should be further monitored. The government should examine whether the measure is well designed and whether there may be barriers making it difficult for employers to use the measure. The government could also consider introducing a permanent reduction in employer SSCs targeted at all low-income workers to ensure a lower tax wedge for all low-skilled workers. In this regard, the permanent exemption of low-paid jobs from health insurance contributions introduced in January 2015 goes in the right direction. Finally, it should be mentioned that the SSC exemption for long-term unemployed workers will not remove all the obstacles to their employability and that more fundamental education and training reforms remain crucial.

[17] Calculations are based on previous experiences with similar measures in the field of active labour market policies. These measures generated an average 5,500 jobs per year, of which 60% were long-term unemployed in the years 2009-2012.

Chapter 4

KEY TAX POLICY RECOMMENDATIONS

The Slovak Republic was among the fastest growing OECD economies in the last decade. The 2004 tax and benefit reform, which introduced in particular a single rate of 19% for personal income tax (PIT), corporate income tax (CIT) and value added tax (VAT), contributed to this success. Less than ten years later, however, weaknesses in the tax system – especially the low level of tax revenues, the relatively distortive structure of the tax mix, poor levels of tax compliance, the distinct tax treatment of different labour contracts, and the high tax wedge for low-income workers – became apparent. To tackle these issues, the Slovak Republic introduced reforms in 2013 including the introduction of a second PIT bracket/rate and an increase in the statutory CIT rate.

While these reforms address some of the weaknesses of the previously established tax system, a number of challenges remain. First, current efforts to enhance tax collection and compliance will need to be further strengthened. In fact, the relatively weak tax administration may create impediments to the introduction of further tax reforms. The Slovak Republic will also face the challenge of remaining attractive to foreign investors. Indeed, the recent CIT rate increase may have a detrimental impact on the Slovak Republic's future growth as its economy has relied heavily on the inflow of mobile foreign investment. With regard to PIT and social security contributions (SSCs), the government will need to ensure that the recent reforms actually make the tax system more progressive and enhance labour market outcomes. Additional PIT and SSC reforms may be necessary to achieve these objectives. Finally, a shift away from distortive direct taxes towards recurrent taxes on immovable property, environmentally related taxes and taxes on capital income at the personal level could help the Slovak Republic raise additional revenues without hindering economic growth. This section summarises the main recommendations of the report and highlights where the Slovak government has already been making progress:

Maintain a broad VAT base and further strengthen efforts to tackle low VAT compliance: In line with international good practices, the Slovak Republic makes limited use of reduced VAT rates and exemptions. Nevertheless, its revenues fall short of what the standard rate would normally generate. As shown in the paper, low tax compliance has been a key factor behind low VAT revenues. Significant efforts have already been made to enhance VAT compliance but these should be continued – through the implementation of the third-stage measures of the Action Plan to combat tax fraud – and carefully evaluated. In particular, a thorough analysis is needed to better understand the widening VAT gap over time and to assess the impact of the recently adopted VAT counter-fraud measures.

Maintain a low CIT rate and a broad CIT base: In the 2000s, the Slovak Republic's relatively low CIT rate contributed to making it an attractive destination for foreign investment. In response to the loss in CIT revenues, which resulted from the economic downturn and the low level of tax compliance, the CIT rate was increased in 2013. The Slovak Republic's current CIT rate of 22% is in line with the average CIT rate of small OECD economies but above that of other V4 countries. Although taxes are only one of the factors that have an impact on FDI inflows, the CIT rate increase may turn out to have a detrimental impact on the Slovak Republic's growth as mobile foreign investment might be re-directed towards more competitive locations. The Slovak Republic should therefore avoid further CIT rate increases to remain competitive. Maintaining a broad CIT base also remains a priority. In 2015, the Slovak Republic introduced measures to broaden the CIT base by better aligning tax depreciation allowances with the real economic depreciation of assets and by limiting a number of tax deductible expenses.

Evaluate existing corporate tax incentives and make the approval process more transparent: Existing tax incentives should be closely assessed. Investment incentives are poorly targeted: very few companies have benefited from them due to the high minimum investment requirement. The approval process for investment incentives is also complex and lacks transparency. It should be made more transparent and automatic, in line with good international practices. Regarding R&D tax relief, a new tax allowance was introduced in 2015 on top of the existing one. The new R&D tax relief has positive features; it combines a volume-based and an incremental component and encourages businesses to hire researchers. However, the Slovak Republic has now two R&D tax schemes, which increases administrative and compliance costs. The government may therefore consider abolishing or phasing out the old R&D tax regime. The recently introduced R&D incentive also creates new opportunities for tax planning and evasion and will require tax administration improvements to monitor it. Finally, the government could consider actively promoting the new R&D incentive among SMEs and helping them apply to increase the measure's take-up rate.

Re-assess the minimum corporate income tax: The recently introduced minimum corporate income tax may not be the best policy option as it violates horizontal equity, generates economic inefficiencies and increases administrative and compliance costs. The impact of this measure should therefore be reassessed once tax administration improvements have been achieved.

Continue efforts to fight against base erosion and profit shifting (BEPS): the Slovak Republic introduced thin-capitalisation rules for related parties in 2015. The rules limit tax deductible interest from loans provided by local and foreign related parties to 25% of EBITDA (earnings before interest, taxes, depreciation and amortisation). In addition, domestic transfer pricing rules were adopted to address avoidance issues arising from shifting profit from profit-making to loss-making companies – the Slovak Republic does not have a group consolidation regime – as well as to companies benefitting from investment tax incentives. The Slovak government is encouraged to continue its efforts to fight against international tax avoidance and evasion and to implement BEPS counter-measures in a multilateral approach as proposed under the OECD/G20 plan.

Significantly reduce the tax burden on labour income, especially for low-skilled workers: High employer SSCs account for a large part of the high tax burden on labour income and labour costs for employers in the Slovak Republic. Because of the relatively low skills levels of workers in the Slovak Republic, the high employer SSCs price low-skilled labour out of the market. The Slovak Republic should therefore consider shifting part of its tax mix away from taxes on labour towards less distortive taxes, including recurrent taxes on immovable property, environmentally related taxes and taxes on capital income at the personal level (see below).

Broaden the recently introduced SSC exemption for the low-paid previously long-term unemployed workers: In November 2013, the Slovak government introduced a temporary employer and employee SSC exemption for the previously long-term unemployed workers earning low wages but the measure has had a mixed impact so far. A cut in employer SSCs for *all* low-income workers to ensure a lower tax wedge for all categories of low-skilled workers may have a more significant impact. A permanent measure as opposed to a one-year SSC cut may have also a stronger effect on labour demand. Broadening the SSC exemption should therefore be considered. In this regard, the permanent health contribution allowance for all low-paid workers that was introduced in January 2015 goes in the right direction.

Consider financing some social benefits through PIT instead of SSCs: SSCs are often levied at flat rates up to a ceiling and, as a result, reduce tax progressivity. The decision of whether to finance social security through SSCs or the PIT entails advantages and disadvantages and should to some extent be linked to the types of social security programmes. One can understand why benefits for retirement, disability and unemployment, which tend to be related in some way to earnings, would be financed in large part through

SSCs. For other programmes such as health insurance and family allowances, the link between contributions and benefits is weak at best. In the case of the Slovak Republic, in the longer run, part of the social benefits, especially those where the link between contributions and benefits is weak, could be financed through PIT instead of SSCs as a way to re-balance the PIT/SSC mix and make the tax system more progressive.

Consider introducing tax incentives for training: In addition to lowering employer SSCs, the productivity of low-skilled workers could be increased through reforms and investments in education and training. Tax provisions to encourage education and training should also be considered to address the Slovak Republic's skills deficit. Many OECD countries – especially those that spend as little as the Slovak Republic on education – offer PIT deductibility or tax credits for education. To provide sufficient incentives for workplace training, the government may also offer additional CIT provisions. However, such a reform would make the tax administration more complex and therefore require tax administration improvements.

Improve the design of cash transfers targeted at low-income families: In addition to child benefits, a refundable tax credit for children and a dependent spouse allowance, low-income families receive income-tested social benefits. Because these benefits decrease rapidly when income rises, they result in very high marginal tax rates for certain family types. For instance, one-earner married couples earning between 50% and 60% of the average wage in 2013 faced a marginal tax burden of over 80%. The design of these benefits, in particular their very high withdrawal rate, should be evaluated as they reduce incentives to work and create a low-income trap for certain families. One possibility for the Slovak Republic would be to integrate part of the cash transfers for low-income families into the refundable employee tax credit, which is currently very small, in order to strengthen work incentives.

Assess and remove any remaining tax distortions between different types of labour arrangements: Progress has been made in removing tax distortions between different types of labour arrangements. Prior to 2013, self-employed and temporary workers benefited from a significantly lower tax wedge than standard workers, which led to the growth of temporary contracts at the expense of regular contracts and encouraged firms to evade SSCs by substituting self-employed workers for regular employees. As of 2013, the compulsory payment wedge on income from temporary contracts was made equal to the wedge faced by regular employees and the difference between the wedge on the self-employed and regular employees decreased from 25% to 20%. The labour market reacted relatively quickly to the increase of the tax burden on temporary contracts. However, additional efforts may be needed regarding the taxation of self-employment. The government may need to evaluate whether further aligning the taxation of self-employment with regular employment would be desirable and should strengthen the tax administration's capabilities to detect when regular employment contracts are being disguised as self-employment.

Consider taxing capital and labour income from self-employment separately: Currently, all income from self-employment is taxed as labour income in the Slovak Republic. The introduction of a 25% top PIT rate and the increase in the SSC ceiling in 2013 further increased the difference between the taxation of labour and capital income and created additional incentives for business owners to incorporate and distribute dividends instead of paying wages in order to minimise their tax (including SSC) liability. Following good practices in Nordic countries, the Slovak Republic could consider taxing the capital and labour income components from self-employment separately. Such an approach would limit tax-induced incentives for the self-employed to incorporate. However, this reform may require a strengthening of the Slovak tax administration's capacities. Another approach would be to increase the capital income taxes levied at the personal level such that the combined capital income tax burden, taking into account the CIT rate, is better aligned with the high tax burden on labour income. Further analysis on the tax induced incentives for incorporation and income shifting from labour to capital within closely-held corporations in the Slovak Republic is needed.

Increase the dividend tax and phase out tax preferences for home ownership: Additional revenues could be raised by increasing some taxes on personal capital income. Increasing taxes on personal capital income would also enhance progressivity as richer households typically earn more capital income. The Slovak Republic may consider phasing out the health contributions on dividend income and introducing a standard tax on dividends as it currently taxes dividends at the personal shareholder level at lower rates than capital gains. Other tax privileges for savings could be phased out. In particular, the rationale for the tax exemption on capital gains from property sales after five years of ownership is weak and creates distortions by encouraging individuals to invest in real estate over other classes of assets and investments.

Increase property taxation and link it to market value: the Slovak Republic's revenues from property taxes are low compared to the OECD average and the tax base in not linked to the market value of the underlying property. The paper recommends increasing recurrent taxes on immovable property and linking property taxation to market value. The Ministry of Finance has already considered such a reform but has not implemented yet. This reform would require improving the land registry.

Increase environmentally-related taxes and achieve greater neutrality in the taxation of energy: the Slovak Republic raises relatively little revenue from environmentally-related taxes. Heating and process energy use accounts for the largest share of total energy use and CO_2-emissions in the Slovak Republic. As a result, a more harmonised tax treatment of heating and process energy use could raise substantial tax revenues and provide incentives to mitigate CO_2-emissions. This could be achieved by increasing taxes on all fuels used for heating and processing up to the standard rate per unit of energy for natural gas. *Ad quantum* excise duties could also be indexed for inflation to prevent environmentally-related tax revenues from declining in real terms over time. Moreover, the Slovak Republic should consider eliminating the gasoline-diesel taxation differential and gradually increasing the taxation of diesel, although there might be limited scope for such a reform in the short run if neighbouring countries do not implement similar tax rate increases. Company cars could be taxed more effectively within the PIT. Finally, the support for electricity production with lignite should be eliminated. Instead, the exemption of the electricity tax could be phased out in order to increase incentives to use electricity more efficiently. Lower income households could be compensated more effectively through the benefit system.

A gradual increase in the taxation of diesel could also be used to lower the burden from direct taxes, although there might be limited scope for such an increase in the short run without similar rate increases in neighbouring countries to prevent fuel tourism.

Strengthen the tax administration's capacity to address non-compliance*:* VAT and CIT non-compliance are significant issues in the Slovak Republic. The Slovak tax administration should therefore be strengthened to better detect all forms of non-compliance. Non-compliance, particularly in the area of VAT, appears concentrated in a few sectors. A better understanding of the sectoral breakdown of the VAT gap would help target more effectively controls by the tax administration and anti-fraud policies at the businesses and activities with the highest compliance risks. It should finally be noted that strengthening the Slovak tax administration's capacity to effectively address non-compliance is a prerequisite for a number of the policy recommendations outlined in this report.

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Annex 1

DEPRECIATION OF ASSETS

Tangible assets

In the Slovak Republic, the following two depreciation methods of tangible assets are used:

a) the straight-line depreciation method

b) the declining balance method

Taxpayers may choose the method of depreciation that is most appropriate to them. For the purposes of depreciation, a tangible asset is depreciated for tax purposes if its acquisition price exceeds EUR 1,700 otherwise it is fully expensed in the year of its acquisition or depreciated according to accounting rules. Depreciation periods are set by law and summarised in the following table.

Depreciation category	Length of depreciation period	Examples of assets
1	**4 years**	Computers, telephones, consumer electronics, office machinery, agricultural and forestry machinery, machinery for food and beverage processing, cars
2	**6 years**	Watches and clocks, batteries and accumulators, electric lighting equipment, machinery for paper production, plastics and rubber machinery, furniture, musical instruments, sports goods
3	**12 years**	Electric motors, ovens, turbines, containers of metal, steam generators, weapons, ships
4	**20 years**	Buildings

Straight-line depreciation

The annual depreciation charges (*D*) of a tangible asset are calculated as the ratio of the value of the asset (*A*) and the number of years of the depreciation period (*P*) set by the law. In the first year of depreciation, depreciation charges correspond to the number of months of the use of the asset (*n*).

$$D_1 = \frac{A}{P} \cdot \frac{n}{12}$$

In subsequent years ($1 < i \leq P$), the depreciation charges are equal to:

$$D_i = \frac{A}{P}$$

The remaining proportion of annual depreciation in the first year is applied in the following year after the end of the corresponding depreciation period (P+1).

$$D_{P+1} = \frac{A}{P} \cdot \left(1 - \frac{n}{12}\right)$$

Declining-balance depreciation

Under the declining balance method, the depreciation charge is declining over the lifespan of the asset. In the first year, depreciation charges are calculated in the same way as in the case of straight-line depreciation. In the subsequent years, the depreciation charges are calculated as the double of the remaining net book value (*NBV*) divided by the difference between period of depreciation increased by 1 and the number of years for which the asset has already been depreciated. That means for year i>1

$$D_i = \frac{2\ .\ NBV_i}{(P+1)-(i-1)}$$

When the value of asset has been increased as a result of a technical upgrade, the depreciation charges are calculated in a different way. In the year in which the net book value is increased (*I*), depreciation allowances are the double of the net book value divided by the period of depreciation

$$D_I = \frac{2\ .NBV_I}{P}$$

In subsequent years, depreciation allowances are twice the net book value divided by the difference between the period of depreciation and the number of years for which the increased net book value has already been depreciated. That means for year $I + i$ $(i \geq 1)$

$$D_{I+i} = \frac{2\ .\ NBV_{I+i}}{P-i}$$

Intangible assets

Intangible assets are depreciated in accordance with general accounting regulations; companies may choose the period of depreciation themselves. Intangible assets need to be depreciated if their acquiring price exceeds EUR 2,400.

Annex 2

MINIMUM CORPORATE INCOME TAX ARRANGEMENTS IN OECD COUNTRIES[18]

Austria

As a consequence of decreasing public revenues (Dahle and Sureth, 2008), a minimum corporate income tax was introduced in 1994, taxing companies regardless of their profitability. The rate is currently calculated as 5% of the minimum statutory amount of nominal or registered capital for each quarter in which the company operates. The annual minimum corporate income tax amounts to:

- EUR 500 as from July 2013 (before it was EUR 1,750) for limited liability companies,
- EUR 3,500 for joint stock companies,
- EUR 5,452 if the taxpayer is a bank or an insurance company.

The minimum tax is payable quarterly and for the first four quarters after the foundation of a newly established corporation the minimum corporate income tax amounts to EUR 273 per quarter (EUR 1 092 per annum). The minimum CIT can be carried forward without time limitation and can be credited against the future CIT burdens of the company.

Belgium

As of 2014, Belgium introduced the Fairness Tax which is an additional tax of 5.15% (5% + 3% of the basic rate of 5 % as a crisis surcharge) to be levied in case a company distributes dividends while it has deducted the notional interest deduction and/or loss carry-forwards from its corporate tax base. Small companies are exempt from the Fairness Tax.

The Fairness Tax is levied on the "untaxed" part of distributed profits multiplied by a fraction. The calculation can be summarised as follows:

FT = 5.15% x "untaxed" part of the distributed profits x [(Notional interest deduction + loss carry-forwards applied)/"gross" taxable basis]

$$\text{FT} = 5.15\% \,.\, \text{“untaxed” dividends} \,.\, \frac{\text{notional interest deduction} + \text{loss carry–forwards applied}}{\text{“gross” taxable basis}}$$

The "untaxed" dividends are equal to the amount of the dividends distributed,

- less the (final) taxable result that has effectively been subject to the 33.99% corporate income tax rate, and
- less the portion of the dividends that stems from reserves that were previously taxed. However, only reserves taxed up to tax year 2014 (FYs ending on 30 December 2014 at the

[18] Review of publicly available information by Authors.

latest) are excluded. Profit that is retained after tax year 2014 (FYs ending on 31 December 2014 or later) and that is distributed as dividend in subsequent years, will not be excluded from the basis of the Fairness Tax.

The fraction includes:

- a numerator that is the sum of the notional interest deduction and the loss carry-forwards effectively used to offset taxable income; and

- a denominator that corresponds to the "gross" taxable basis, i.e., the taxable basis after the "first operation" in the Belgian corporate tax return. This refers to an intermediary step in the calculation of the Belgian corporate income tax liability after the exclusion of some tax-exempt income such as exempt capital gains on shares but before the deduction of other tax benefits such as the dividends received deduction, the patent income deduction, the notional interest deduction, loss carry-forwards and the investment deduction.

Non-resident companies with a permanent establishment (PE) in Belgium are also subject to the Fairness Tax according to the formula above. The distributed dividend is, however, defined as the portion of the gross dividend distributed by the non-resident company that corresponds to the part of the accounting result of the Belgian PE in the overall accounting result of the non-resident company.

France

As from 2011, French resident companies are subject to a minimum tax based on their turnover before VAT plus financial income in the last complete fiscal year (maximum EUR 110,000). The minimum amount is deductible like other costs without time limitation. The minimum tax has to be paid by 15 March. The fixed levy is determined as follows:

Turnover before VAT plus financial income		Minimum CIT
over	below	
	EUR 15 million	EUR 0
EUR 15 million	EUR 75 million	EUR 20,500
EUR 75 million	EUR 500 million	EUR 32,750
EUR 500 million		EUR 110,000

Existing exemptions:

- non-profit institutions,

- companies exempt from corporation tax,

- legal persons whose purpose is to provide their members with free use of properties,

- companies entitled to corporation tax exemption as applied to new businesses,

- licensed management centres or associations,

- associations with the activity of enhancing local social life,

- specific employer groups.

Hungary

The alternative minimum tax (AMT) in Hungary was originally a tax on a certain minimum tax base. However, in response to a decision of the Constitutional Court invalidating the legislation, the AMT was effectively converted into an optional tax.

The AMT base is calculated as 2% of revenues less costs of goods sold, value of intermediated services and income attributable to foreign permanent establishments and to that base the general CIT rate is applied. A taxpayer whose CIT is less than AMT can opt to pay AMT or pay CIT and submit a filing containing information regarding certain types of expenses. Taxpayers who chose to pay CIT are, in principle, more likely to be selected for a tax audit.

Luxembourg

As of 2013, a new minimum corporate income tax is applied to Luxembourg entities in a tax loss position or who pay less CIT than the minimum tax. The amount paid is creditable against future corporate income tax without any time limit. This tax applies as follows:

- Entities (irrespective whether they are regulated or not) that own qualifying holding and financing assets exceeding 90% of their balance sheet, are liable to a minimum flat income tax of EUR 3,210 including the unemployment fund contribution (Solidarity Surtax).

- Other companies are subject to a progressive minimum income tax depending on the total assets on their balance sheet. The tax will range from EUR 535 (for a total balance sheet up to EUR 350,000) to EUR 21,400 (for total balance sheet exceeding EUR 20,000,000), including the unemployment fund contribution.

Balance sheet total		Minimum CIT
over	below	
	EUR 350,000	EUR 535
EUR 350,001	EUR 2,000,000	EUR 1,605
EUR 2,000,001	EUR 10,000,000	EUR 5,350
EUR 10,000,001	EUR 15,000,000	EUR 10,700
EUR 15,000,001	EUR 20,000,000	EUR 16,050
EUR 20,000,001		EUR 21,400

United States

The alternative minimum tax (AMT) is an income tax imposed on individuals, corporations, estates, and trusts. The AMT is imposed at a nearly flat rate on an adjusted amount of taxable income above a certain threshold (exemption). This exemption is substantially higher than the exemption from regular income tax. Taxpayers with incomes above the exemption whose regular income tax is below the amount of AMT must pay the higher AMT amount. The tax rate for corporations is 20% and the exemption amounts to USD 40,000.

Corporations with average annual gross receipts of USD 7,500,000 or less for the prior three years are exempt from the AMT, but only as long as they continue to meet this test. Further, a corporation is exempt from the AMT during its first year as a corporation. Affiliated corporations are treated as if they were a single corporation.

To the extent the AMT exceeds regular income tax, a future credit is provided which can offset future regular tax to the extent the AMT does not apply in a future year. Small corporations are exempt from the AMT.

Annex 3

LOSS CARRY-FORWARD RULES IN EU-28 COUNTRIES IN 2014

Country	Loss carry-back	Loss carry-forward	Limitation
Austria	No	Indefinite	up to 75% of profits
Belgium	No	Indefinite	
Bulgaria	No	5 years	
Croatia	No	5 years	
Czech Republic	No	5 years	
Denmark	No	Indefinite	only 60% of profits in excess of DKK 7.5m
Estonia	No	No	
Finland	No	10 years	
France	1 year	Indefinite	up to EUR 1m plus 50% of profits for the fiscal year
Germany	1 year	Indefinite	only 60% of profits in excess of EUR 1m
Greece	No	5 years	
Hungary	No	Indefinite	up to 50% of profits
Ireland	1 year	Indefinite	
Italy	No	Indefinite	up to 80% of taxable income
Latvia	No	Indefinite	
Lithuania	No	Indefinite	up to 70% of taxable income (does not apply for micro entities)
Luxembourg	No	Indefinite	
Malta	No	Indefinite	
Netherlands	1 year	9 years	
Poland	No	5 years	up to 50% of incurred loss
Portugal	No	12 years	up to 70% of profits
Romania	No	7 years	
Slovak Republic	No	4 years	equal deduction within 4-year period (25% of each loss in the following four tax periods)
Slovenia	No	Indefinite	up to 50% of tax base
Spain	No	18 years	limitation based on the company's turnover (up to 50% or 25% of taxable income)
Sweden	No	Indefinite	
United Kingdom	1 year	Indefinite	

Source: Deloitte Highlights -2014, Taxation trends in the EU – 2013

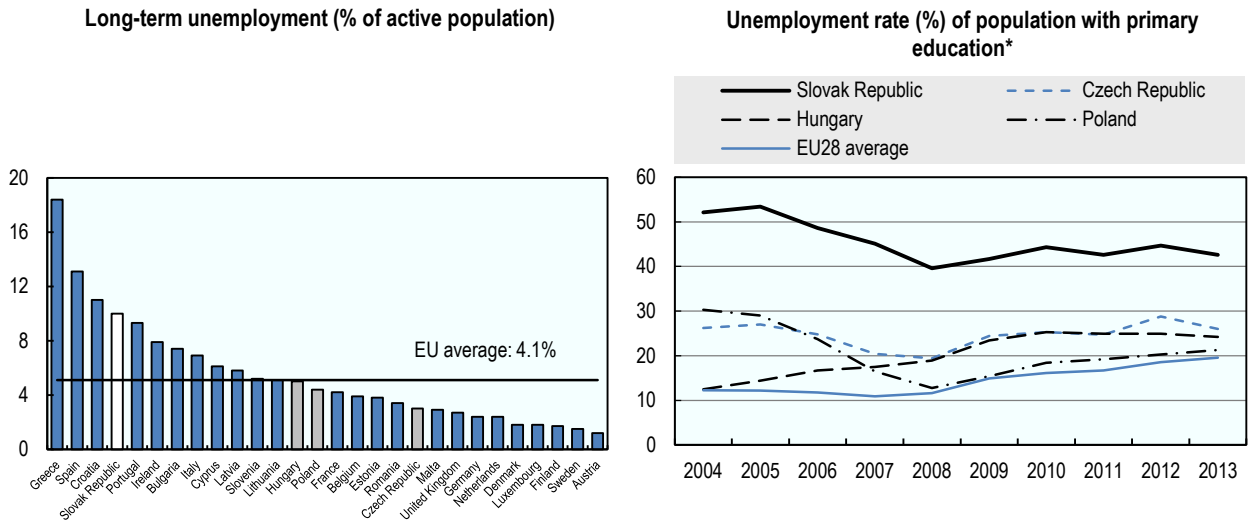
Annex 4

SKILLS SHORTAGES IN THE SLOVAK LABOUR MARKET

Long-term and low-skilled unemployment

The unemployment rate rose significantly during the crisis and it was the fifth highest among OECD countries in 2012 at 14%. Long-term unemployment is a chronic problem of the Slovak labour market with its rate being the fourth highest in the European Union, double of the EU average (see Figure A4.1, left-hand panel). The unemployment rate of workers who followed only primary education in the Slovak Republic has been much higher than the EU average and the average of the other three V4 countries over the period 2004-2013 (see Figure A4.1, right-hand panel). The share of workers who followed primary education only in total unemployment amounts to around 62%[19].

Figure A4.1: Long-term and low-skilled unemployment is very high in the Slovak Republic, 2004-2013



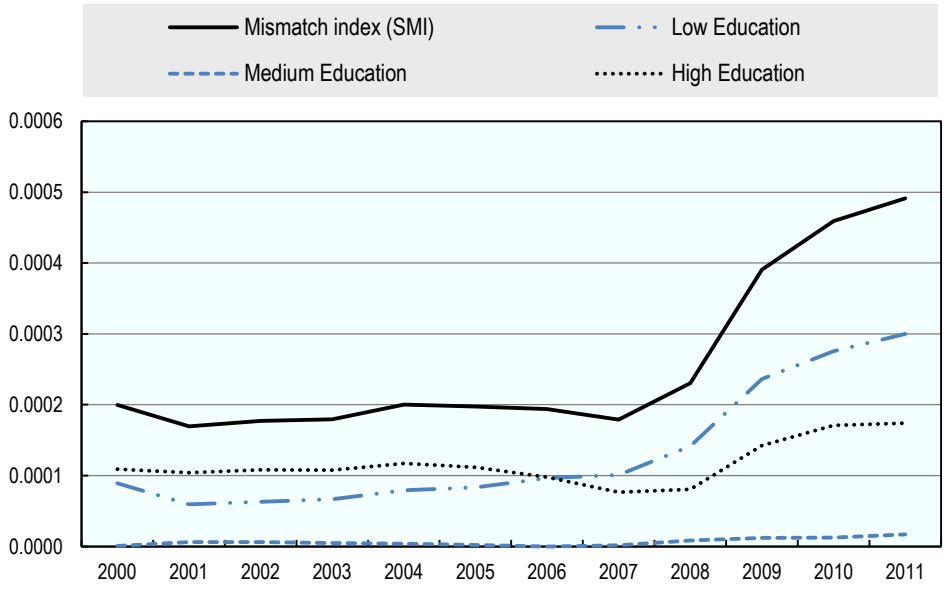
Source: Eurostat. * ISCED 0-2 level

Skills shortages/ mismatch

Recent analysis of the ECB (2012) for the euro area shows a marked increase in the overall EU-27 skills mismatch index (SMI) during the period of the crisis (Figure A4.2). The breakdown of SMI shows that the increase in skills mismatches can be attributed primarily to the collapse of the demand for low-skilled workers.

19 Source: Statistical Office of the Slovak Republic (2013 figure), Unemployment by duration, share of long-term unemployment (more than one year) on overall unemployment.

Figure A4.2: Skill mismatch index (SMI) by level of educational attainment, EU-27[20]



Source: European Central Bank (2012)

[20] The SMI has been derived following the methodology of Estevao and Tsounta (2011) and ECB (2012). The skill mismatch index measures the distance between relative demand and supply of a given skill j, where demand is captured by the share of employed persons with skill j in the EU economy/country/region at a given time period and supply is approximated by the share of the active workforce in possession of a given skill level (or, similarly, the stock of unemployed workers with skill level j). The education levels are separated according to the ISCED classification: High education: ISCED 5-6; Medium education: ISCED 3-4; Low education: ISCED 0-2.

Annex 5

CHANGE IN OVERALL PROGRESSIVITY OF PITS AND SSCS IN THE SLOVAK REPUBLIC: 2012-2013

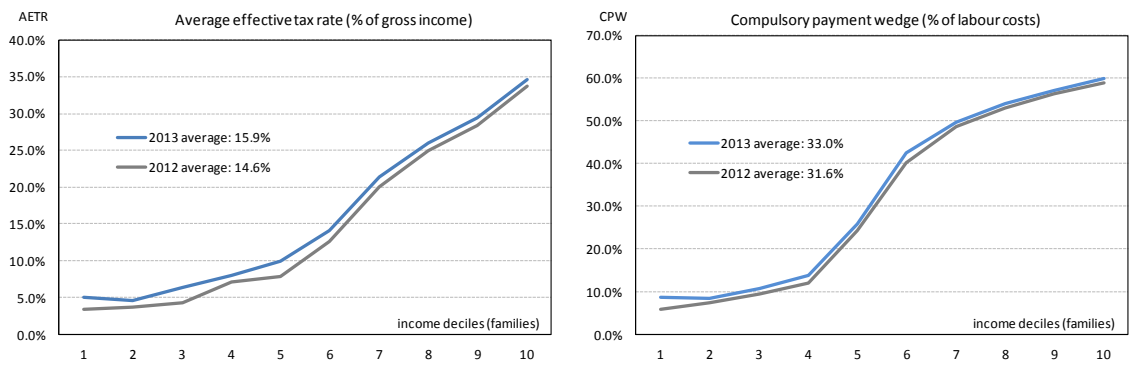
Overall progressivity of direct taxation in 2013 has decreased

One would expect that the 2013 tax changes would increase the overall progressivity of direct personal taxation (labour, capital and benefit income). Comparing tax wedge indicators as well as structural progression indicators for selected household between 2012 and 2013 can help assess the impact of recent tax changes on progressivity. However, the overall application of the results and comparisons of structural tax indicators are limited as they measure the progressivity of selected taxes in isolation and provide estimates of progression rates along a selected/given income scale, household type as well as source of income. For an overall assessment of changes in progressivity, it is necessary to calculate effective progressivity indicators (Gini pre-tax and Gini post-tax or Kakwani index).

For this purpose, Remeta (2014) has carried out an analysis of changes in the progressivity of direct personal taxation in the Slovak Republic between 2012 and 2013. The progressivity of the taxes on wages, self-employee earnings, capital income and social benefits depends on the design and interaction of PITs, SSCs and the benefit system. In order to capture the impact and interaction of all the features of the tax and benefit system, we have computed effective tax rates at all income deciles and a Kakwani index, which shows how the tax system affects the distribution of income across the entire population.

The resulting average effective tax rate increased in 2013 across all family income deciles (Figure A5.1) with the highest increase among poorest families, suggesting a decrease in progressivity. The most obvious explanations for this result were the increase in SSCs from agreement contracts and the increased minimum SSCs for the self-employed. More in-depth analysis however revealed that main reason of the lower progressivity was the limitation of the spousal allowance which hits the second and third deciles the most. In the case of the compulsory payment wedge indicator, the annual change in progressivity was lower due to the mitigating effect of higher employer contributions (abolition of SSC exemption from agreement incomes and unifying of assessment base at 5 times the average wage).

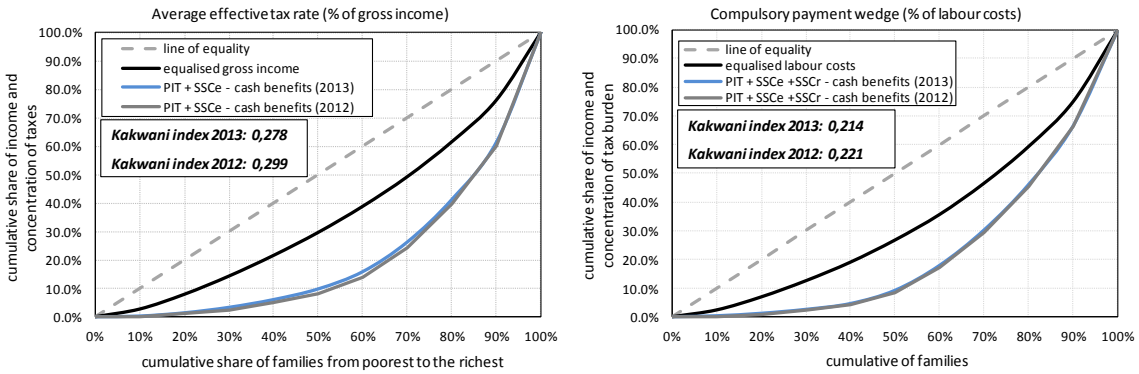
Figure A5.1 Overall tax burden across different income deciles, the Slovak Republic, 2012 - 2013



Source: Remeta (2014)

Afterwards, the Kakwani index was calculated using the SILC data (difference between the Gini coefficient for income and the concentration index for paid taxes) for personal income in the Slovak Republic in 2012 and 2013. Figure A5.2 includes the concentration curves for both the 2012 and 2013 tax system and the Lorenz curve for pre-tax income. The concentration curve below the Lorenz curve represents a tax system where, for each income level, those with lower income pay a smaller share of total tax than their share in total pre-tax income. Thus, the concentration curve of the Slovak tax system corresponds to a progressive tax. The concentration curve of taxes for the 2013 tax system is closer to the Lorenz curve (the concentration curve coinciding with the Lorenz curve for pre-tax income corresponds to a proportional income tax), indicating that the tax system was less progressive in 2013 than in 2012.

Figure A5.2 Income tax progressivity, the Slovak Republic, 2012 – 2013



Source: Remeta (2014)