



# SPECIAL ANALYSIS

EU Office | April 2016



## **Taxation in the EU - the structure and efficiency of tax collection**

Vít Macháček

**EU Office**

**ERSTE**   
Corporate Banking

## Introduction

Taxes are a topic that to a certain extent bothers each of us – either upon a bad-tempered look at a pay slip, reading news about tax evasion or watching reports about wild tax regulations. Apart from traditional debates about the optimal amount of tax, another debate has also been added in recent times about the process and technical organisation of tax collection – should consumption rather than work be taxed? How can tax evasion be avoided? As part of this topic we can see what the differences are in tax collection across the EU – where the most tax is collected, from what sources and what measure is used to gauge the efficiency of collection.

It is generally the case in the European Union that taxes are higher in the old member states than in the new ones. Tax collection in the European Union is very heterogeneous – while some states rely substantially on company tax (France), others try to tax the work of individuals (the Scandinavian states). In some tax systems preference is given to taxing consumption (Hungary) and the Czech Republic, for example, relies in a significant way on social security contributions which finance specific needs separately – healthcare and welfare benefits.

Within the European Union tax systems are differentiated not only by different rates – their efficiency also differs significantly. While tax administration in Hungary, for example, consumes 0.4% of GDP, in Spain it is only a quarter of this – 0.1% of GDP. The success of the tax collection also differs considerably – while in Slovakia the collection of EUR 100 costs roughly 1.4 EUR, the Poles collect PLN 100 at a cost of only PLN 0.16. The success of tax collection differs not only in how much is collected but also in how much tax is not collected – while the Finns are relatively successful in the collection of VAT and manage to collect 95% of its potential, the success rate in Romania is markedly lower – in regard to VAT, 40% is unable to be collected of what according to hypothetical models and consumption data should be possible to collect.

## Theory or types of taxation and definition

Taxes are essential instruments in financing public services and thanks to this more or less sophisticated forms have evolved over the centuries. The oldest method is direct taxation – a subject on which the effects of tax fall is taxed directly. A typical example is income tax – a tax on the income of an individual who is generally also obliged to pay tax. Direct tax is also further divided into income tax – i.e. those relating to the income of individuals or corporations (also known among economists as a labour tax) and asset tax – property tax or road tax.

Apart from classic tax, social and healthcare policies in particular are often financed through compulsory insurance which is held in an account separate from a classic state budget. Thanks to separate accounts from state money, the funds for social and healthcare policies are stabilised and secured because of the fact that they will not be used for purposes other than which they were collected. In some cases the contributions to social policies are categorised as direct taxes, although they will be kept separate in this article.

Because of the simplification of collection, a parallel system of “indirect tax” has also evolved over time – in which someone other than the entity which is subject to tax and on whom the effect of the tax falls is responsible for paying the tax.

The best known example is the value-added tax, but consumption taxes on cigarettes, alcoholic beverages and fuel are also used. Responsibility for these taxes falls on those who sell the goods, not those who consume them and who ultimately pay the tax. Indirect tax is also called a consumption tax.

## The collection of tax in the EU

It's not news that in the countries of “old Europe” taxes are generally higher than in the new member states. The roughest indicator of the amount of taxation is the ratio of tax collected to local GDP – this indicator shows the size of the state budget and the scope of the tax system.

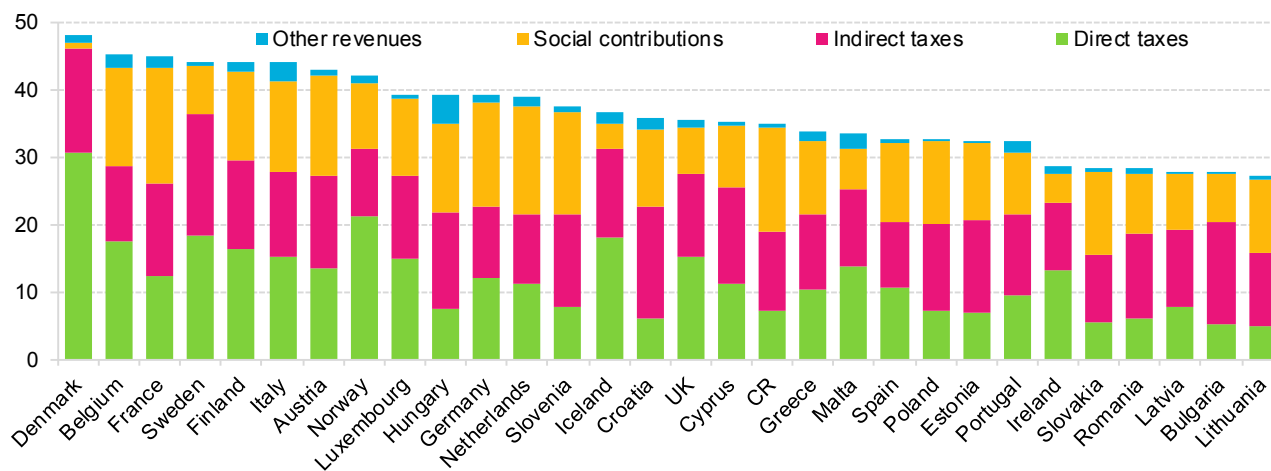
The highest amount of GDP in the form of taxation flows into the state budget in Denmark, in Belgium and in France, where 45% of GDP is collected in taxes. In contrast, the lowest rate of taxation is at the other end of Europe – less than 30% of GDP makes its way into the state budget as a result of the tax take in Lithuania, Bulgaria, Romania and Slovakia. The exception that proves the rule is Ireland, whose tax collection makes up less than 30% of that country's GDP despite the fact that it's the most western country in the EU and acceded to the Union with Great Britain in 1973.

Some economists assert that taxing consumption is more beneficial than taxing labour – taxation via VAT or a consumption tax has a lower impact on motivation to work and the labour market generally, and in addition consumption is macroeconomically more stable – the state can better forecast how much will be collected in tax each year.

A third of the overall tax take in the European Union comes in indirect tax. The tax structure within the European Union, however, understandably varies – while in Hungary the collection of indirect tax is nearly half of all tax because of a very high rate of VAT (27%), in Germany and Belgium it is less than 30% of the tax take.

On average, indirect tax represents approximately 15% of member state GDP.

**Taxation structure in the EU relative to GDP**



Source: European Commission

The proportion of VAT in the total collection of indirect tax is somewhere in the vicinity of one half and two-thirds, and the rest is usually divided between various types of consumer tax and import duties.

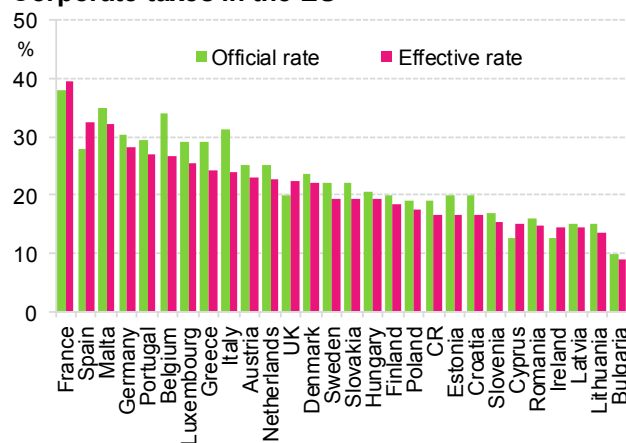
The share of direct tax per total collection within the EU varies quite considerably and the dividing axis is also to a significant degree determined by the former Iron Curtain. While in the new member states direct taxation forms around 20% of tax income, in the Scandinavian countries, for example, this form of collection is more than 50%. One needs to be cautious with interpreting this data, however, because while the majority of welfare expenditure in Scandinavian countries is financed from tax, in the case of some countries (including, for example, the Czech Republic), these expenses are covered from accounts outside the tax system. On average, direct tax in the EU accounts for up to one third of the tax take, which is approximately 13% of European GDP.

The state can tax both natural persons and legal entities and the system of tax collection is unique in each country – there are different rules, different tax exemptions, and progressive taxes, etc. An international comparison of the “amount of tax” that subjects actually pay is therefore relatively complicated. The European Commission nevertheless presents some.

The distribution of income from direct taxes within the EU varies substantially – some states tend to tax natural persons, while others rely on corporation tax. Most states rely mostly on taxing natural persons – 21 member states obtain more than 60% of direct tax by taxing natural persons. For example, in the Scandinavian countries this is up to 80%. In the interest of maintaining competitiveness, Scandinavian states prefer to tax the income of natural persons considerably more than corporations.

A somewhat different insight is offered if we look at the amount of tax from the point of view of the payers. The most taxed is corporate income in France – the state takes on average 40% of their profits. In Spain and Malta, companies also pay more than 30% of all their

**Corporate taxes in the EU**



Source: European Commission

income in tax. Conversely, new member states pander to companies and keep corporate income tax low – for example, companies in Bulgaria pay only 10% of their income.

Around 15% is actually collected in taxes.

Some may be surprised by the fact that there is also a relatively low corporation tax in the Scandinavian countries – in Finland, companies pay 18% of their income in tax, in Sweden 19% and in Denmark 22%. The Scandinavian model understands that companies need to be motivated to pay tax and its rich welfare state is financed from other forms of tax.

The effective tax rate is a measure of the tax rate on corporate income. It is based on local tax system parameters and indicates how much corporations really pay in tax on their actual income. As a result, the effective rate may significantly differ from the nominal rate – in some cases by up to 8 percentage points. We can also look at direct tax from the point of view of natural persons. Within its own statistics the European Commission compares among other things the amount of tax on childless individuals on an average wage. Given the existing progression in the whole system it's necessary to interpret this data very cautiously – the tax take may differ substantially for other income categories. It's also necessary to add that deductions for social and health insurance are calculated as part of collected tax.

In regard to personal income tax, rates in “old Europe” are higher than in the new member states. Deductions for income tax are highest in Belgium, Austria, Germany, France and Italy. In contrast, relatively low taxes are imposed in the Anglo-Saxon parts of the EU – in Ireland, the United Kingdom and also Malta tax rates are half that of Belgium.

The default rate is calculated from a macroeconomic perspective – instead of looking at tax deductions for individuals it's dealt with in aggregate values – how much of total employee wages are deducted for tax and social insurance? And despite the fact that there are certain differences, the overall distribution of the tax burden is roughly equivalent to the amount of individual deductions. The highest default rate is in Belgium and Italy, closely followed by Austria and Finland. In contrast, the lowest tax rates are in the Anglo-Saxon countries and Bulgaria.

Substantial amounts of deducted tax are deductions for social and health insurance. The approach to this instrument varies considerably throughout Europe and low deductions for insurance certainly don't mean that these countries would necessarily have low social expenditure – they tend not to be financed through compulsory insurance deductions.

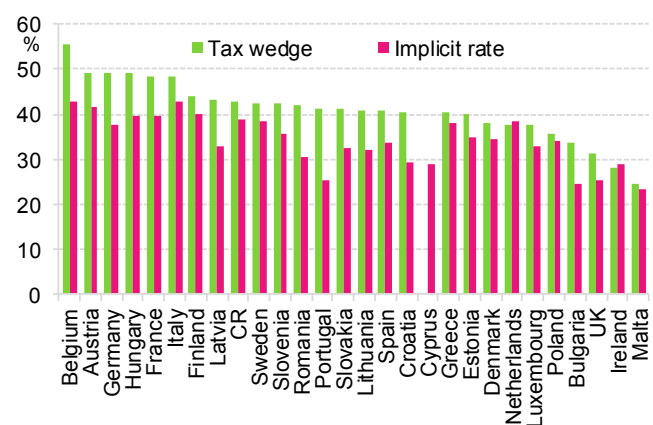
Distribution of responsibility for payment of insurance varies significantly – while in Estonia an employer pays more than 90% of contributions, in Slovenia half of all contributions fall on the employee. A common practice in all countries is the low contribution of sole traders to insurance payments – in the most important ones it is around 20%, but it's not an exception to contribute less than 10%.

The highest amount in social welfare contributions to overall tax is in the Czech Republic and Slovakia – welfare contributions comprise 45% of the tax take. In another 15 countries contributions to social and health insurance form more than 30% of total collected tax. Conversely, low deductions are made in Denmark and Sweden where social expenditure tends to be financed from tax, as well as in Ireland, Malta and Great Britain. In all of these countries contributions to social security comprise less than a fifth of tax income.

## The efficiency of the tax take

The collection of tax nevertheless is not self-evident and like any other activity it requires certain costs – the operations of financial authorities, effective auditing and enforcement costs a lot of money.

### Individual income tax



Source: European Commission; Tax wedge indicates average taxation of childless individual with average income; Implicit rate indicates the share of income tax and social benefits contributions on total wages; Tax wedge on Cyprus is not available

The greatest cost required for tax administration is in Hungary where it reaches nearly 0.5% of GDP. In some countries, such as Spain, Latvia and Estonia tax collection costs are low – they require less than 0.1% of GDP only.

Comparing tax administration budgets with GDP, however, is a very blunt indicator which ignores the job description of tax administration workers – in some countries there are more complicated tax systems, and in others certain types of tax don't exist. A better indicator (though still imperfect) is the effectiveness of the relative cost of collecting tax – i.e. how much a unit of local currency is spent per the collection of 100 units of tax. And even this indicator must necessarily be treated with caution – the tax administration structure is far from being the only factor influencing the tax take.

In other words – even if the tax administration remains the same the amount of money collected may vary considerably in different years, for example, because of changes in macroeconomic conditions.

According to this data, the least effective tax administrations are Slovakia, the Czech Republic and Germany. Collecting 100 units of tax there costs more than 1.3 units. The very bad position of new acceded countries is also confirmed in the following places – Bulgaria, Romania and Hungary also have relatively expensive tax collections. A view of the opposite end of the rankings is nevertheless going to surprise – country like an Estonia have in contrast very low costs for collecting taxes .

Both the two preceding indicators, however, have one common methodological problem – they successfully measure how much tax is collected, but they completely ignore how much tax was unable to be collected.

Despite the fact that this indicator is very hypothetical, it is possible to estimate expected income for some types of tax – in regard to knowledge of data about consumption, it is possible for example to estimate relatively successfully how much should be collected from value-added tax – the amount of tax actually collected per the potential collection is called a loss of VAT receipts. This indicator demonstrates dramatic differences in the collection of VAT – while in Romania, Lithuania and Slovakia up to 40% of potential state income from VAT is lost somewhere “on the way”, in half the countries of the EU (and it's necessary to add that it concerns in particular those older members) less than 15% of income is lost. There are therefore great opportunities for the new member states especially to improve the efficiency of the tax take.

## Tax collection in the Czech Republic

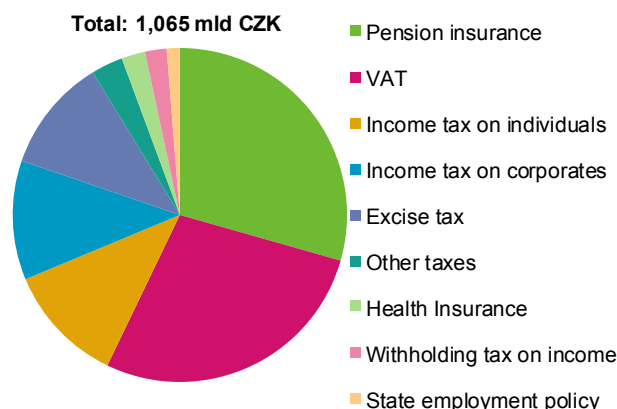
According to European Commission data, approximately 35% of GDP goes into the state budget in the form of tax – i.e. a comparable amount as, for example, in Greece, Great Britain and Croatia. In comparison with other new member states, taxes are relatively high – they are higher only in Hungary (39% of GDP) and Slovenia (37% of GDP). For example, the overall take in Bulgaria is only 28% of GDP there. Around 67% of total revenue is accounted for by tax type income. Of this, two fifths is accounted for by income from VAT, wherein we belong to the European mainstream, according to the European Commission. A quarter of the budget is collected by the Czech tax administration in the form of income tax – exactly 12% of its income is collected from corporations and natural persons each. A further two percent of the government's income is obtained in the form of withholding tax.

The state budget in the Czech Republic relies greatly on non-tax income – social insurance represents 33% of total income and according to European Commission data we belong, together with Slovakia, among those countries where the proportion of social expenditure per total tax is the highest. Approximately two-thirds of social expenditure in the Czech Republic is paid by employers and only one fifth is paid by employees. Sole traders contribute 16% to total social security deductions.

By far the greatest part of social security transfers is comprised of old age pensions – a total of CZK 350 billion that forms nearly 90% of all social security contributions. Health insurance then accounts for CZK 27 billion and state employment policy CZK 15 billion.

The effectiveness of the tax take in the Czech Republic is at present the subject of political debate and OECD data show that there really is room there for improvement.

**Tax income structure in CR (2015)**



Source: MF ČR, MPSV

In comparison to GDP, the Czech financial administration is not overly large – it ranks approximately midway among European Union member states. Funds devoted to tax collection are not spent very efficiently – the collection of CZK 100 costs the financial administration CZK 1.3, which places it in third position in the EU next to Slovakia and Germany.

The commonly discussed topic of VAT also needs to be worked through – it hasn't been possible in the Czech Republic to collect more than 22.4% of the total potential tax take.

## Conclusion

Tax policy is a key part of economic policy – it influences to a certain extent the labour market, and also the country's success in international trade. It's therefore important to focus not only on how high taxes are, but also on how taxes are collected so that they cause the least harm. The example of the Scandinavian countries shows that high taxes don't have to represent barriers to economic development if the system is set up in such a way that it causes the least damage to the economy. The role of the institutional environment can also be seen within the European Union in tax collection efficiency – in countries where the system is well set up tax is collected much more efficiently than in others. More surprising is that success in collecting tax isn't overly associated with the rate of taxation. It is simply necessary to “know how” to collect tax and the Czech Republic has much to learn and improve upon.

### EU OFFICE / KNOWLEDGE CENTRE - Česká spořitelna, a.s.

Budějovická 1518/13a, 140 00 Praha 4

tel.: +420 956 718 012

e-mail: [eu\\_office@csas.cz](mailto:eu_office@csas.cz)

<http://www.csas.cz/eu>

#### Tomáš Kozelský – manager

e-mail: [tkozelsky@csas.cz](mailto:tkozelsky@csas.cz)

tel.: +420 956 718 013

#### Jan Jedlička

e-mail: [jjedlicka@csas.cz](mailto:jjedlicka@csas.cz)

tel.: +420 956 718 014

#### Tereza Hrtusová

e-mail: [thrtusova@csas.cz](mailto:thrtusova@csas.cz)

tel.: +420 956 718 012

#### Max Wandler

e-mail: [mwandler@csas.cz](mailto:mwandler@csas.cz)

tel.: +420 956 714 291

#### Radek Novák

e-mail: [radeknovak@csas.cz](mailto:radeknovak@csas.cz)

tel.: +420 956 718 015