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TAXING TAXES

LABOR & CAPITAL IN CEE

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EDITOR-IN-CHIEF OF *4LIBERTY.EU REVIEW*
Olga Łabendowicz

CONTENT EDITOR OF *4LIBERTY.EU REVIEW* NO. 12
Aleksander Laszek

PUBLISHER
Fundacja Liberté! (102 Piotrkowska St., 90-004 Lodz, Poland)
Błażej Lenkowski – President of the Board, Leszek Jażdżewski – Vice-President of the Board, Kamil Janiszewski – Secretary, Filip Miłoszewski, Rafał Szkudlarek

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Taxing Taxes: How to Tax Capital and Labor in CEE?

Taxes. We all pay them in one way or another – this has already been made perfectly clear. Therefore, it is not so much about whether or not to pay them (which is not a real question after all, is it? Paying taxes is the only responsible thing to do), but rather it is about how many of them we are subject to, and how complicated the tax system is in general for each and every taxpayer. After all, as George Lakoff once said, "[t]axation is what you pay to live in a civilized society – what you pay to have democracy and opportunity." And is it not precisely what we are doing?

Paying taxes does not need to (and should not!) be *taxing*. Quite the contrary – it must be clear, straightforward, effortless, and taxpayer-friendly. What every taxation system needs is thus sensible policymakers who would look at the state expenditures and instead of introducing new taxes every time budget is in need of a cash inflow, would take a step back and think of the ways of improving the exiting system and tax collection mechanisms. There is always something to be done in this regard, and excessive taxation is never a good idea – or, as is attributed to Tiberius, *boni pastoris est tondere pecus non deglubere*[1].

At the same time, we must be aware that some tax cuts are purely populist measures that simply cannot be sustainable over a longer period of time. Whenever we bear witness to such steps being undertaken, we shall remain cautious, as they typically bring consequences that most of the taxpayers end up paying for anyway. One thing is certain: taxation is a complex issue that must be approached with simplicity. Only a balanced tax system can help achieve the ultimate goal: a "self-sufficient" state working for unencumbered taxpayers.

In the 12th issue of *4liberty.eu Review* we take up the phenomenon of taxation from various perspectives around the CEE region. Our primary focus is the taxation of labor and capital – from the cases of Poland and the Czech Republic, to Ukraine, Bulgaria, and Bosnia and Herzegovina. We do, however, tackle also related phenomena – by showcasing, for example, the Slovakian take on carbon taxes. All this has been done in a bid to familiarize the Reader with an overview of various existing approaches, and propose recommendations on how to make all tax systems better. Because, to paraphrase Adam Smith's words, "easy taxes" are one of the pre-requisites for a successful state. And who would not want our countries to be just that?

Enjoy your reading,

O. Łabendowicz

Editor-in-Chief of the *4liberty.eu Review*
Coordinator of the 4liberty.eu network

[1] In Latin, "a good shepherd should shear, not flay, his flock".

Contents

The Meaning of Taxation: Effects of Various Taxes (Labor, Capital, Consumption) on the Economy

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TOMASZ
KASPROWICZ

As Thomas Jefferson once said, taxes along with the death are inevitable. We know that scientists are trying to challenge the inevitability of death. Avoiding taxes is, like death, one of the biggest problems most people face. And I do not mean as the problem for the government in raising money for spending, which is obvious, but for the economy as a whole. Put differently, taxes are problematic for the economy because they are *avoidable*.

Taxation is an involuntary payment levied on various entities in order to finance the state budget[1]. Clearly, the tax burden is heavily influenced by the philosophy of the role of the state in the public life, as well as quantity and quality of public services rendered. Here, the level of corruption, cronyism, and efficiency of the bureaucracy constitute important factors. As a result, how much money is available for public policy is dependent on not only the sheer amount of taxes collected, but also on how much is going to be stolen or wasted along the way. As such, it is not so much about the philosophy of public spending and how large the budget should be.

According to some schools of economic thought, like Modern Monetary Theory, this is completely irrelevant as budget could be financed with created money, whereas taxation is only a means of stabilizing money supply[2]. Leaving such ideas aside, let us take revenue needs of the government as given and discuss only the means of taxation – not its level.

WHAT IS TAXED AND WHY?

The governments can be very creative as regards taxes and what is the base of taxation. From the economic point of view, taxation concerns mostly two categories: stocks and flows.

Taxation of flows concerns transactions or exchanges including purchases, donations, earning income, etc. Taxation of stock is done chiefly through property taxes with the most important being real estate tax and inflation. There are many other variations of stock taxes where any other type of property is taxed including: dogs, horses, TVs, wells, fruit bearing trees, chimneys, or

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THE TAX BURDEN IS HEAVILY INFLUENCED BY THE PHILOSOPHY OF THE ROLE OF THE STATE IN THE PUBLIC LIFE, AS WELL AS QUANTITY AND QUALITY OF PUBLIC SERVICES RENDERED

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[1] The state is understood here broadly, including the local government as well as various state and state related agencies (such as social security and health insurance). Therefore, all such contributions are included under the term "taxes". As such, any academic debate on whether social security and similar contributions are technically taxes or not will not be discussed.

[2] In fact, MMT relies heavily on an untypical but a very common tax, which is inflation. Also, it leads to distortion of the structure of the economy and, therefore, is not advisable in any real-life policy.

> THE GOVERNMENTS CAN BE VERY CREATIVE AS REGARDS TAXES AND WHAT IS THE BASE OF TAXATION

even one's own head[3]. Here, we will deal mostly with the taxation of labor and capital. Taxation of labor is an income tax, which constitutes a flow. Taxing capital might be more difficult to classify, as government sometimes taxes flow (income) and in other cases stock.

The effect of taxation on the economy is driven by two main factors. The major one is due to its influence on people's behavior. In other words, the main problem with taxes is that they can be avoided – not only by means of illegal or bordering on illegal activities as an attempt to decrease the tax bill[4]. Actually, the most common tax avoidance strategy is based on avoiding doing whatever is taxed. Levying the tax on dogs causes a decrease in the number of dogs; the poll tax does not induce suicides but tends to curb birth rate; and the personal income tax reduces incentives to work.

[3] The poll tax is also called a "head tax", as everybody in a possession of a "head" needed to pay it.

[4] See: Landsburg, S. E. (2007) "The Armchair Economist", Revised and updated in May 2012, *Economics & Everyday Life*, New York: Simon and Schuster.

MISUNDERSTOOD LAFFER

The best description of the effects of taxation on economic activity is given by Laffer's curve, described as early as the 16th century, and misunderstood since then. The idea is quite simple: as we start taxing something, our revenues increase with the increase of the tax rate. However, every increase gives less than a proportional increase in revenues as people start avoiding the tax – either by limiting their activities, or hiding them.

At some tax rate one may encounter a tipping point at which revenues actually tend to fall with the increase of the tax rate. Going beyond this point is counterproductive from the point of view of the government[5]. Moreover, it is detrimental to the economy due to an increase in the shadow economy, illegal activities, and transaction costs. From the governmental perspective, if the required revenue is less than the maximum obtainable, it can be collected at two tax rates; but in terms of efficiency, it is always better to realize it at the lower rate.

WHY TAXES MATER

In most areas of the economy the influence of taxation on the tax base tends to be negative from the economic point of view, as it discourages human activity and, hence, dampens economic growth. However, one needs to understand that this is not always the case. The situations when free market gives an optimal economic allocation are quite well described and, clearly, real life rarely ticks all of the boxes. If the discrepancies between theory and reality are small then it is not a problem, but the problem of externalities is a major one.

[5] Misunderstanding of Laffer's curve is common both on the liberal and socialist side. Socialists propose funding extra spending by increasing tax rates, and their simulations are based on applying a new tax rate to the existing tax base, ignoring people's response to the increased rates. Hence their refusal to accept the existence of the tipping point despite the existing evidence. In Poland, for instance, it was proven to exist at least three times in the last 30 years in terms of excise and income taxes. Liberals often propose decreasing tax rates, promising an increase of tax revenues, assuming the tax rate is on the right side of the tipping point. This might happen, but, actually, is equivalent to increasing taxation – which is rarely an effect, desired by liberals.

Externalities are effects of our activities that are borne by others without their consent or compensation. Nearly any activity people perform causes some externalities: if I wear clothes that do not match in color, I may be causing some discomfort to others, hence they will be paying (miniscule) price for my lack of taste. Again, as long as these costs are small, this not a problem. However, as their scale grows, the distortions to the market become severe. For example, burning trash as the means to heat the house may be an economically sound choice for an individual. However, the price of this cheap fuel is actually paid by neighbors, who are forced to breath in the smoke. Similarly, on a larger scale, there are other activities in the economy causing similar effects not limited to pollution[6].

One way of dealing with such problems is banning behavior-causing externalities. In many cases, however, this is not an optimal solution and sometimes it raises controversy – as was the case, for example, of children-free restaurants.

"GOOD" TAXES

Another solution is the Pigovian tax, which is a tax that is designed so that a person or a corporation is forced to pay for these external expenses borne by others and, therefore, is likely to modify its own behavior so that all expenses are included in a cost-benefit analysis of its actions. In principle, this should improve the way the economy performs. In fact, such a tax is imposed quite frequently – including the excise tax on alcohol and tobacco, carbon tax, sugar tax, as well as various payments made by companies for use of natural resources (including polluting water and air). New ones are also currently being considered – including a meat tax in the European Union[7].

[6] It is worth noting that the external effect may sometimes be a positive one. By vaccinating myself, I deliver to society the benefit of heard immunity that is immaterial to me as I am vaccinated. Hence, in this case the Pigovian tax should actually be paid to me. Providing vaccines at a reduced cost or no charge whatsoever actually sometimes does this.

> TAXATION OF LABOR IS AN INCOME TAX, WHICH CONSTITUTES A FLOW

In practice, however, such an approach faces many challenges. Firstly, how should we estimate how much our neighbor should pay for each kilo of trash burned? Calculation of the value of externalities is notoriously difficult and often based on very subjective or political factors. Therefore, the market distortion may be not fully eliminated, or, even worse, may be increased if the levied tax is far too high.

Secondly the tax is influencing only perpetrators, but gives little benefit to the victims of their actions other than limiting their appetites for harmful activities. From the perspective of neighbors, the tax should

[7] https://www.theguardian.com/environment/2020/feb/04/eu-meat-tax-climate-emergency
See also: Ripple, W. J., Smith, P., Haberl, H., Montzka, S. A., McAlpine, C., and D.H. Boucher (2014) "Ruminants, Climate Change, and Climate Policy", [in]: *Nature climate change, 4*(1), pp. 2-5.

be high enough to force the perpetrator to switch to a fuel that is not inducing cancer. However, such an opinion is mostly based on the fact that my neighbor is now facing full costs of his actions, whereas still, next to none of these benefits are transferred to the neighborhood. Therefore, the community will likely support a total ban on the actions causing externalities, which may not always be the optimal choice[8].

Finally, since almost all of our actions cause externalities, selection of which ones should be taxed is usually quite an arbitrary political decision. As mentioned above, in the EU, the meat tax is now on the agenda – despite large controversies. Still, nobody is proposing a "children's tax", while, clearly, having children leaves a much larger carbon footprint than that of the meat industry. Meanwhile, a number of developed countries (including Germany, Poland, and the United Kingdom) often propose subsidies in order to boost fertility rates. As we can see, the approach to taxation has more to do with values shared by societies than economic calculations.

The partial solution to these problems is introducing markets wherever possible as externalities are mostly the effect of too little market. Pollution arises mostly because there is no owner of air or water that could claim damage to his or her property at a fair price. Unfortunately, introducing the market is often not feasible for political or even practical matter. It is hard to imagine being charged for air we breathe; also, the supplier would have to be a global monopoly. Hence, it seems that in certain cases the imperfect Pigovan tax in the form of arbitrary payments for pollution is the best available alternative. Still, governments sometimes manage to induce a certain level

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> THE MAIN PROBLEM WITH TAXES IS THAT THEY CAN BE AVOIDED

of market mechanisms, e.g. in the shape of permit auctions or secondary market (like in the case of CO_2 emissions). This allows for a more objective market discovery of a proper tax rate.

INFLUENCE OF TAXES

Now we turn to the second set of taxes: ones that have no influence on the economy. These are the ones that do not influence the behavior of people and, therefore, do not distort the way people allocate their property and effort. Still, it seems that such taxes are hard to find.

The poll tax is often given as an example: other than going into hiding, people cannot avoid it. It is true that few would commit suicide to avoid paying the tax; nevertheless, it seems that implementation of such a tax leads to a decrease in birth rate[9]. In other words, despite the current tax base being relatively constant, the tax has an impact on the future supply of taxpayers[10]. Similarly, the

[8] In no way is the author implying that burning trash is a valid option.

[9] Mirrlees, J. (1972) "Population Policy and the Taxation of Family Size", [in]: *Journal of Public Economics*, Vol. 1, pp. 169-198.

[10] This is a hotly debated issue in politics and such effects seem to be very small. In fact, the negative poll tax (or subsidy) has little to no effect on increasing fertility – as observed for example in Poland, where the 500+ program (a subsidy of about EUR 125 per month for each child) had some effect in the first two years, but now, the fertility rate is regressing towards a long-term mean.

> ”
> BURNING TRASH AS THE MEANS TO HEAT THE HOUSE MAY BE AN ECONOMICALLY SOUND CHOICE FOR AN INDIVIDUAL. HOWEVER, THE PRICE OF THIS CHEAP FUEL IS ACTUALLY PAID BY NEIGHBORS

real estate tax – also seemingly inescapable – leads to abandonment of ownership and under utilization of land, which is a valuable resource by all accounts. Still, research shows that the impact of the real estate tax on economic growth seems to be the least problematic[11] – likely due to inelastic supply of and difficulty in its avoidance.

A positive or neutral effect of taxes on economy is, however, a rare exception. Most popular taxes limit productive activities of people – such as working or investing – since it is extremely easy to avoid paying them. At the same time, the wealthiest have enough resources to avoid taxation via complicated mechanisms. This creates an uneven playing field for their smaller competitors, who cannot obtain similar benefits, which then increases the problems that the introduction of the taxes brought in the first place. Fighting tax avoidance is an obvious way to limit the negative effect of taxation on the economy. Nonetheless, although liberal thought is skeptical towards taxation in general, such skepticism should not be combined by looking at tax avoidance with leniency.

DEADWEIGHT COST OF TAXES

The impact of taxation on the economy is not limited solely to its effect on corporate and human behavior. The transactional costs of tax collection are usually quite substantial, as compared to the total tax bill. On the side of payers, these costs include: costs of tax data gathering and processing (including calculation of tax liability, money transfer expenses, and liquidity management). In fact, such costs may be very substantial: the time spent to comply with taxes goes from over 1,500 hours per year in Brazil (that is 4 hours every single day, including holidays and weekends) to 50 hours in Estonia[12]. As we can see, there is a large room for potential improvement in many countries.

In some jurisdictions, the largest cost is that of tax law uncertainty. It arises from the fact that a badly written tax law may be subject to various interpretations. Therefore, when paying taxes, taxpayers are exposed to the litigation from the tax authorities – even if the tax liability was calculated to the taxpayer's best effort.

[11] Johansson, Å., et al. (2008) "Taxation and Economic Growth", *OECD Economics Department Working Papers*, No. 620, Paris: OECD Publishing.

[12] https://www.pwc.com/gx/en/services/tax/publications/paying-taxes-2020.html

THE APPROACH TO TAXATION HAS MORE TO DO WITH VALUES SHARED BY SOCIETIES THAN ECONOMIC CALCULATIONS

Finally, in some companies, transaction costs include expenses for developing and executing tax avoidance schemes. All this is time, effort, and money wasted, which could have been used for more productive purposes. At the same time, the existence of thousands of tax officers is an expense on the side of the government.

In opposition to the previous case, there is no way that this effect could be positive for the economy, and, therefore, it should be minimized. Clearly, this is also a task for the government, as it is in charge of setting tax rules. Unfortunately, for various reasons, the trend is quite opposite, and despite advances in digitization the tax collection burden is not decreasing. In part, it has to do with a growing complexity of the globalized world, as well as new tax avoidance schemes. However, sometimes, the level of difficulty of a tax code arises from the incompetence of legislators, or is introduced in a given form on purpose in order to maintain power over entrepreneurs. Defiance to comply with wishes of politicians can be swiftly countered with tax controls that, using unclear law, will easily bring anybody to their knees with fines and penalties. This is the story of Mikhail Khodorkovsky, who was swiftly turned from the wealthiest man in Russia to an inmate in a penal camp as soon as he challenged President Vladimir Putin.

BUDGET ALWAYS WANTS MORE

The observation of government revenues shows that the taxes that deliver positive or even neutral effect to the economy are not sufficient to provide tax revenues to fit the spending bill. Therefore, the state must decide to reach for more harmful ways to tax citizens. The three most popular ones are consumption, labor, and capital. Here, let us discuss the impact on the economy of the latter two.

Labor and capital are the two main inputs into the production process. The taxation on any of them leads to less production, and hence harms economic growth. However, the exact extent and severity of the harm is quite different in each case.

TAXATION OF LABOR

In the case of labor, in principle, every period citizens face a decision on how much to work and time use for leisure. On the other hand, companies look at their opportunities to employ people in order to create profits. Both of these forces lead to market equilibrium, where supply and demand of labor meet with the optimal price. Taxation puts a wedge between demand and supply, leaving less for workers and forcing companies to pay more. Lower wages discourage people from working, while higher costs for companies render certain positions unprofitable. Hence, these effects and the level of unemployment increases diminish the amount of production. The good news is that whenever the tax burden is decreased, the production will return to normal.

So much for theory – the practice is a little bit more troublesome. The said wedge eliminates jobs with the smallest value added – usually performed by the least skilled workers. Elimination of their jobs leads to an increase in poverty and lengthy unemployment. As low skilled workers are eliminated from the job market for prolonged time period, their (already low) human capital degrades, and the probability of returning to job market is falling.

Reversing such effects requires more effort than elimination of labor taxes. One of the biggest challenges of social workers is making their clients go back to work and the cost of success may be tremendous. Moreover, such damage is lasting, as the lack of work of parents is often passed on to future generations.

In order to counter this problem, the government often introduces progressive tax schemes, where the poor pay less, not only in absolute terms, but also as a proportion of their wages. This alleviates the problem to a degree, but soon introduces a new one. Workers mostly in high added-value industries achieve higher income. High taxes decrease incentives to work there. Even worse, it discourages workers from obtaining valuable skills, which is harmful for human capital in the nation at large. It also often encourages the most skilled employees to emigrate, thus creating a brain drain, at the same time burdening the state with the cost of educating these workers.

FIGHTING TAX AVOIDANCE IS AN OBVIOUS WAY TO LIMIT THE NEGATIVE EFFECT OF TAXATION ON THE ECONOMY

Such problems are clearly visible in developing countries that are integrated into global economy. This is why the intended increase of social security burden for specialists in Poland was postponed three times already in response to a high level of resistance from businesses, which were afraid of losing skilled workers in IT which are already a scarcity.

TAXATION OF CAPITAL AND INEQUALITIES

Taxation of capital has much better press. Since the revelations of Thomas Piketty[13] were released, there is a widespread belief that inequalities are rising, and that decreasing them would be good for society. This is somewhat of a bold statement, as optimal inequality is clearly not the minimal one (not the maximal one either), hence decreasing it is not always a good move.

According to the initial findings of Piketty (now heavily contested even by the author himself), the rise of inequality occurs because the return on capital is, in a long run, higher than the return on labor (famous r>g). Taxation of capital and larger redistribution is supposed to fix this problem.

The taxation of capital takes many forms. The most popular one is taxation of various capital gains – be it corporate income tax or interest/dividend income tax. Tax rates tend

[13] Piketty, T. (2014) *Capital in the 21st Century*, Cambridge, Massachusetts: The Belknap Press of Harvard University Press.

to be lower than in the case of labor income tax, but capital gains are often taxed twice.

Another option is taxing the stock of capital. The most common explicit form in this respect is the real estate tax. We hear more and more frequently about the taxation of wealth above certain limit, which is proposed both by left wing parties (including democrats in the US, like Bernie Sanders – a likely presidential nominee for the 2020 election) and billionaires, like Bill Gates and Warren Buffett[14].

Even a more common implicit form is inflation. The state is usually quite heavily in debt, mostly issued with fixed interest. Inflation decreases the real value of the debt and the cost of servicing it, hence indirectly contributing to the budget. This tax, however, impacts the poor the most since they keep the largest portion of their assets in cash. Therefore, this type of a capital tax is clearly not helping to diminish inequalities.

Finally, the stock of capital is quite often taxed when changing hands, mostly through inheritance or donations. Such a tax is probably the most problematic. The taxes mentioned earlier are in most cases paid using current capital gains as income tax is just a fraction of those gains. Stock taxes are mostly set at a level that may be normally sustained using the current gains – otherwise holding capital would not be sustainable, and the general trend would lead to wide nationalization of assets.

However, in the case of inheritance tax, usually a large one-time payment that often forces the beneficiary to liquidate some assets is required. If inheritance takes the form of liquid assets (like cash, liquid bonds, or shares of public companies), then it is not a problem. Nevertheless, if it comes in the form of a private company or real estate, then the problem is much larger. In many cases, accepting such an inheritance requires liquidation of certain assets that disrupt operations of the companies, which may significantly weaken or even liquidate them. Truing to a differentiate tax rate depending on a type of inheritance usually creates loopholes allowing the avoidance of such taxes altogether.

INVESTMENT MISSED IS BENEFIT LOST FOREVER

Even putting these disruptive effects aside, the consequences of taxation of capital on the economy are more complex than is for the case of labor. In the short run, my decision to work less due to taxes can be easily reversed if taxes fall. The negative results are only visible in the longer run due to the fall in human capital. This is not the case when we talk about capital that is subject to depreciation and accumulation. The meaning of depreciation is that if we do not keep investing, a certain amount of capital is used up every year, and with it, our ability to produce. Accumulation means that investment stacks and our current stock of capital is a sum of all investments from the past.

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> DESPITE ADVANCES IN DIGITIZATION THE TAX COLLECTION BURDEN IS NOT DECREASING

Oftentimes, how much people are willing to invest is paired with how much they plan to consume. If we are discouraged from investment, we spend. Reduction of taxes will bring our investment rate back up, but the years when we have been investing less will forever be reflected in the stock of capital. Put differently: since labor is used up in one production cycle, its temporary shortage has a temporary effect, while capital lasts longer and its shortage is felt much longer.

Imagine we are building one factory per year. If in one year we do not have enough workers for one of the factories, we will lose its yearly output. It is troublesome, but as soon as we have more workers, this is just a one-time event, and normal production will resume – the loss is limited to one-year production. On the other hand if, due to taxes, we will not build a factory in a given year, we will lose output from this factory forever. Even if we return to normal investment policies the following year, still, unlike in the previous case, the total production will be lower than it could have been, given the disruption never happened as the factory from the fatal year will be forfeited forever. To make up for it, we would have to invest more than usual.

This observation is especially important for the countries that have low stock of capital and want to develop faster. It is potentially slightly less important for well-developed states. However, implementation of this quite simple economic principle faces serious political problems. Labor is the means of obtaining income by most of the people, while income from capital is a significant factor only for top bracket of wealth.

Large discrepancy in taxation levels of labor and capital creates tensions and may lead to a rise in power of the forces calling for larger redistribution. This, in turn, often leads to escape of the capital to countries with lower taxation and employment of aggressive tax avoidance schemes by the wealthiest persons. At the same time, people at the early stages of capital accumulation are heavily penalized by these taxes, as they cannot afford tax optimization yet. Adding insult to injury, such taxation schemes do not only decrease inequalities, but also decrease social mobility and remove motivation for innovation and hard work.

> ”
> THE TAXATION OF CAPITAL TAKES MANY FORMS

BEST WAY FORWARD: RECOMMENDATIONS

In this light, the best practices of taxation arising from economic theory are quite obvious. Firstly, as much as possible should be raised from Pigovan taxes, which alleviate problems of free market inefficiencies in certain situations. They should be set up in such a way that people behaved as if the conditions for effective asset allocation were met. This is, however, not an easy feat, since setting tax rates and related mechanisms are not obvious. Centralized attempts at offsetting market imperfections suffer from the same pitfalls like any central planning, as described by Hayek[15]: it is impossible to gather all necessary, accurate, and up to date information in the hands of a central planner.

[14] https://www.cnbc.com/2019/02/25/warren-buffett-and-bill-gates-the-rich-should-pay-higher-taxes.html

[15] F. A. Hayek (1948), *Individualism and Economic Order*, Chicago: University of Chicago Press, pp. 86-87.

Aside from the Pigovan taxes, taxes shall have as limited an impact on people's behavior as possible, because such a mechanism distorts their decisions and harms the economy. One of the main ways to do it is to make taxes unavoidable. Again, it is not an easy task and one that requires international cooperation. Tax havens exist closer than we expect – with three major ones being Ireland, Luxembourg, and the Netherlands[16].

Moreover, relying on very subjective categories of cost or profit for taxation becomes more and more problematic. Therefore, certain new solutions rely on more objective categories – such as revenue – to be used as a tax base. Of course, this idea has its own problems[17], but compared to corporate income tax (that is paid by multinational corporations only if they wish to do so) and VAT tax (that is actually used to pump money out of budgets), its simplicity is refreshing. Still, tax systems worldwide are quite conservative, so we will most likely not observe any major shift towards a turnover tax anytime soon, despite its appeal. What we may observe, though, is its implementation in specific cases – as is the case of the digital tax.

Tax systems should take advantage of digitization and AI. Such moves are increasing in number – e.g. with Standard Audit File for Tax (ASF-T), which is currently implemented in Portugal, Luxembourg, France, Austria, Poland, Lithuania, and Norway. Such files allow for a quick analysis of complicated data using standardized tools, or even make it possible to apply machine learning to detect fraud. Despite being cumbersome entrepreneurs at the start, they become standards that allow for the reduction of other transaction costs, unifying EDI standards across a given country. They also sometimes replace traditional filling methods, as is scheduled to happen in Poland in 2020.

RELYING ON VERY SUBJECTIVE CATEGORIES OF COST OR PROFIT FOR TAXATION BECOMES MORE AND MORE PROBLEMATIC

Finally, governments need to decide how to balance the negative effect of taxation between various groups, and this is no easy decision. Shielding the poor often heavily dampens economic growth, which in turn, is needed to escape from poverty. But usually, few care about the long run.

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TOMASZ KASPROWICZ

Vice-President of Res Publica Foundation. Managing partner of Gemini, an IT company specializing in business process automation. Editor at *Liberte!* and *Res Publica Nowa*

[16] Tørsløv, T. R., Wier, L. S., and G. Zucman (2018) *The Missing Profits of Nations*, No. w24701, Cambridge: National Bureau of Economic Research.

[17] More about them in this issue of *4Liberty.eu Review*.

Slovakia Versus Carbon Taxes: A Serious Substitute for Existing Taxation or a New Tax Load?

*
RADOVAN ĎURANA

Taxation of carbon is one of the key instruments of the European Union's agenda focused on decreasing emissions of CO_2. A recently introduced European green agreement (European Green Deal) perceives new carbon tax introduction into the tax mix through the lens of all possible benefits: *"Well-designed tax reforms can boost economic growth and resilience to climate shocks and help contribute to a fairer society and to a just transition"*[1].

Many economists[2] consider the instrument of the Pigovian tax, which penalizes unwanted behavior (polluting) as an optimal tool, which encompasses the following characteristics:

- punishes undesirable actions (the polluter pays);
- encourages investment to reduce emissions – supporting technological progress, including the development of renewable sources;
- it is nationwide and therefore fair; the same rate applies to all - the government does not choose technology winners by nationwide tax.

These economists support the introduction of such a tax with the claim that with growing income and wealth, consumers do not decrease their energy consumption, rather on the contrary (the so-called "Jevons paradox"). Higher efficiency of new technologies leads not only to lower unit prices, but also to increased consumption[3]. Only

> WITH GROWING INCOME AND WEALTH, CONSUMERS DO NOT DECREASE THEIR ENERGY CONSUMPTION, RATHER ON THE CONTRARY (THE SO-CALLED "JEVONS PARADOX")

increasing costs of consumption, which can be secured by continuously raising the price of carbon, can reduce demand, thus leading to an absolute decline in consumption.

EVERY TAX HAS NEGATIVE EXTERNALITIES

The final effect of the carbon tax is determined by the way in which additional resources are handled. Every tax results in reallocation of scarce resources for purposes less desired by consumers. Not only do taxes diminish the utility of a consumer, but they also have a negative impact on economic growth. These effects are also consequential for the carbon tax.

The most integral part of the market economy is the price mechanism, which provides signals to individual economic agents about the scarcity of resources and their

[1] https://ec.europa.eu/info/sites/info/files/european-green-deal-communication_en.pdf

[2] https://www.ft.com/content/137b9da8-99c4-11e9-8cfb-30c211dcd229. EU economists call for carbon taxes to hit the net zero goal earlier.

[3] For example, declining air transport costs can be mentioned. Higher transport efficiency, new investments in more efficient aircraft have allowed significant price reductions and relatively strong growth in both mileage and passenger numbers.

utility. The generated profit, on the other hand, is a sign of efficacy of given production. The carbon tax disrupts these signals, subsequently reallocating investments from the most desired resources and needs to less effective production.

Electric cars can serve as an example. Nowadays, their manufacturing and operation are still more expensive, even after taking costs of pollution at current prices into account. Another example would be the rise in prices of basic inputs in construction (worsened availability of housing) due to higher prices (e.g. cement and steel).

To eliminate the additional loss of productivity, deadweight loss of new tax, economists suggest the carbon tax introduction to be revenue neutral. This means that the total amount of collected taxes will decrease by the amount of the carbon tax. Due to a negative impact on economic growth, this tax shift should lead to a decline in direct taxes. There is a kind of a consensus in economic literature that direct taxes are more harmful from the perspective of economic growth. They involve the income tax or taxes on company revenues, the labor tax, or social and health contributions.

”

THE FINAL EFFECT OF THE CARBON TAX IS DETERMINED BY THE WAY IN WHICH ADDITIONAL RESOURCES ARE HANDLED

”

ECONOMISTS SUGGEST THE CARBON TAX INTRODUCTION TO BE REVENUE NEUTRAL

McKitrick (2016) argues that "[t]he logic of carbon pricing is that it induces the market to identify and implement the cheapest abatement options, and reject the rest. Using the revenues to subsidize the rejected ones would defeat the purpose of the policy"[4]. Also McKenzie (2016) argues that initiatives like infrastructure spending should be evaluated and financed independently of carbon tax revenues and new revenues should be used to reduce existing distortionary taxes[5].

Accordingly, supranational institutions, such as the World Bank or the International Monetary Fund, recommend reducing the direct tax burden. As is apparent from the text of the Green Deal, the EU is likely to aim to reduce the tax burden on labor.

[4] McKitrick, R. (2016) *A Practical Guide to the Economics of Carbon Pricing*, SPP Research Papers, University of Calgary, School of Public Policy. Available [online]: http://www.policyschool.ca/wp-content/uploads/2016/09/Carbon-Pricing-McKitrickFINAL.pdf

[5] McKenzie, K. J. (2016) *Make the Alberta Carbon Levy Revenue Neutral*. SPP Briefing Paper 9, 15 (April), University of Calgary, School of Public Policy. Availabe [online]: http://www.policyschool.ca/wp-content/uploads/2016/05/carbon-levy-revenue-neutral-mckenzie.pdf

Table 1: Opinion poll on the willingness to pay more for climate change

Question: How much more would you be willing to pay on your monthly bill for energy consumption to tackle climate change?					
EUR 0 (nothing more	EUR 2 (+5%)	EUR 5 (+12,5%)	EUR 10 (+25%)	More than EUR 10 (more than 25%)	Don't know / not considered
49.2%	25.1%	11.0%	4.8%	3.5%	6.4%

Source: https://blog.etrend.sk/eugen-jurzyca/slovaci-o-planoch-ursuly-von-den-leyen-prieskum.html [in Slovak]

This plan has its own logic, since environmental taxes are certainly not popular among general public. Representative opinion polls commissioned by MEP Eugen Jurzyca[6] show that Slovak citizens are generally unwilling to pay higher taxes on the consumption of energy produced from fossil fuels, respectively, only to a limited extent [See: Table 1].

Therefore, it is understandable that a disagreement within the public opinion provides support for the requirement that penalization of polluting behavior should be compensated for through cuts on different taxes.

However, the question is how much a reduction in labor taxes such a tax will bring. Carbon taxes are intended to cover, at an early stage, sectors that are not part of the emission-trading scheme today. On the other hand, land transport, which is not a part of the allowance permits market, is already heavily burdened by excise duties. Therefore, let us consider how much the Slovak state is already levying on carbon taxes. In the third part, we analyze the remaining emission production and estimate the potential of the carbon tax yield. In the last part, we analyze considerable risks and mitigation of keeping the promise of fiscal neutrality.

HOW MUCH DO SLOVAKS PAY FOR CARBON NOWADAYS?

To begin with, it is important to understand what a carbon tax is. It is generally defined as an indirect (excise) tax tied to the amount of carbon emissions, mostly due to burning fossil fuels[7].

The definition presupposes that the higher the content of carbon, the higher the rate, and, thus, less polluting fuels should be burdened by a lower tax rate. Since the term carbon tax itself is quite new, the taxes that are labelled as "carbon taxes" or "environmental taxes" are usually taxes on electricity (electricity produced from renewable sources is exempt), a coal tax, and a gas tax. These taxes were implemented into the Slovak tax system in accordance with the requirements of European Directives.

[6] https://blog.etrend.sk/eugen-jurzyca/slovaci-o-planoch-ursuly-von-den-leyen-prieskum.html

[7] A carbon tax is a tax levied on the carbon content of fuels (transport and energy sector). The term carbon tax is also used to refer to a carbon dioxide equivalent tax, the latter of which is quite similar, but can be placed on any type of greenhouse gas or combination of greenhouse gases, emitted by any economic sector.

THE EU IS LIKELY TO AIM TO REDUCE THE TAX BURDEN ON LABOR

Nonetheless, in the Slovak tax system, there are also other taxes that exclusively burden fuels containing carbon. These represent, de facto, the key carbon taxes, although they are not labelled in that manner in legislation.

EXCISE DUTIES ON ELECTRICITY, COAL, AND GAS

Carbon or green taxes were introduced into the Slovak tax system in 2008 as a consequence of a transposition of directive 2008/118/ES[8]. At the time of the introduction of these taxes, the European Commission already advocated that reducing the tax burden on labor could offset them. However, as the Directive allowed member states to adopt different exemptions, lowering the rates, the Slovak government did not proceed with any related rate cuts.

The electricity tax rate is set at EUR 1.32 / MWh.[9]; coal is set at EUR 10.62 / t. The natural gas tax rate shall be set if: a) it is used as a fuel for the production of heat; or b) is supplied for the production of compressed natural gas to be used as the fuel for the production of EUR 9.36 / MWh. The rate of taxation on compressed natural gas supplied or used as propellant shall be EUR 0.141 / kg; if it is used as a fuel for heat production, the rate of tax shall be EUR 0.01989 / kg. As stated by the Ministry of Finance in Tax Report 2018:

> *"There are 27 exemptions for energy taxes, whether facultative or obligatory. Their share in the total delivered quantity of individual energies varies. While for coal it is close to 100%, for electricity the share of the exempt amount increases (65% in 2017), and for natural gas the share is stable at 68%[10]".*

Although coal is almost completely tax-exempt in Slovakia, the rate is also low. Assuming that one tonne of burned coal emits 1.5-1.9 tons of CO_2, at the current price allowance permits EUR 23/tonne, the coal tax should be set between EUR 34.5 and 43.7 per tonne of coal. Low prices are in line with values of government officials of over the last twelve years that did not want to pass on the tax burden to households (whether in direct consumption or through heating plants). The result is very low revenue on the following taxes, representing 0.1% of the total tax mix [See: Table 2]. According to available estimates, elimination of all exemptions would yield EUR 65 million[11].

CHARGES FOR ELECTRICITY PRODUCED FROM RENEWABLE RESOURCES

In fact, households and businesses contribute more to deal with climate change by subsidizing the production of renewable resources (RES). At present, their production in Slovakia is financed by a subsidized feed-in tariff, which is significantly higher than the market price. The cost of the higher price of RES is transferred to the price of electricity of the final consumer, together with surcharges for subsidizing the production of cogeneration of electricity and heat and subsidies for coal mining [See: Box 1]. In 2018, these premiums in the final price of households represented a 22.5% share. The last known amount of renewable energy surcharges dates to 2018 in the value of EUR 16.6 per MWh of electricity (compared with EUR 1.32/ MWh of the electricity tax).

Table 2: Revenues of energy/carbon taxes

Tax revenues (thousands, EUR)	2017	2018	2019	2020	2021	2022
Tax on electric energy	11,175	10,949	11,842	12,052	12,316	12,533
Tax on natural gas	25,638	24,053	23,691	24,178	24,774	25,280
Tax on coal	105	347	369	287	256	224

Source: Public Sector Budget Proposal 2020-2022[12]

CARBON TAXES ARE INTENDED TO COVER, AT AN EARLY STAGE, SECTORS THAT ARE NOT PART OF THE EMISSION-TRADING SCHEME TODAY

With this quasi-indirect tax, final consumers paid EUR 380 million for production of RES[13]. This is a much higher amount than consumers paid through the above-mentioned carbon (energy) excise duties. As 2,3994 GWh of energy was produced from RES, the current energy mix of 257 ths. tons of CO_2 were saved, approximately 0.6% of the total annual GHG production in Slovakia[14]. If we used the same amount of money to purchase emission permits for EUR 23 per tonne, we would save EUR 16 million tons of CO_2 emissions, almost 40% of the total Slovak production. This number indicates the current inefficiency of RES subsidies.

[8] https://eur-lex.europa.eu/legal-content/sk/TXT/?uri=CELEX%3A32008L0118

[9] For comparison, a consumer pays for annual consumption of electricity of 1 MWh approximately 150-170 euros.

[10] Tax Report 2018. Available [online]:https://www.mfsr.sk/sk/financie/institut-financnej-politiky/publikacie-ifp/ekonomickeanalyzy/50-danovy-report-slovenskej-republiky-2018-oktober-2018-2.html

[11] Revision of environmental expenditures (2017) Final report.

[12] Public Sector Budget Proposal 2020-2022. Available [online]: https://www.mfsr.sk/sk/financie/verejne-financie/rozpocet-verejnej-spravy/#collapse-325601582823933291

[13] https://ekonomika.sme.sk/c/22247669/za-8-rokov-sa-na-vyrobu-zelenej-elektriny-dalo-tri-miliardy.html

[14] Calculations based on data from European Environmental Agency. Available [online]: https://www.eea.europa.eu/data-and-maps/data/co2-intensity-of-electricity-generation

BOX 1: SUBSIDY FOR CARBON EMISSION IN SLOVAKIA

What is peculiar about the final price of electricity in Slovakia is the fact that the support of electricity production from RES is not a direct budget expenditure, but it is conducted in a hidden form. At the same time, the support of lignite mining is also a part of the same surcharge (the so-called "tariff for system operation").This additional charge pays for the purchase of electricity from the lignite power plant in Nováky at higher than market prices, so that the power plant with regulated profit continues to operate and buys lignite mined in the adjacent mines. The amount of the surcharge is EUR 118 million for 1.2 GWh of electricity produced.

Thus, the regulator will "support" CO_2 emission savings in the same surcharge in which it subsequently eliminates them more than twice (1.9 million tonnes of CO_2) by promoting unprofitable lignite mining.

This paradox is an illustration of the attitude of the last governments in Slovakia towards environmental pollution. The government has long preferred the "social" goal, preserving 1,800 miners' jobs (plus another 1,700 above the ground employees) over eliminating the health and environmental impact of the mining. Seven years ago, the closure of a large plant in the region would be a major problem, currently there is very low unemployment in the region and a total of tens of thousands of vacant jobs in Slovakia. Finally, the government adopted a plan to end subsidized lignite energy purchase by the end of 2023. Closing the extraction or stopping the burning of lignite would mean that GHG emissions from energy production in Slovakia would decrease by 7%.

TAXES ON MOTOR OILS

The tax on petrol had already been introduced in 1905 in the United Kingdom. It is apparent that, historically, this tax emerged neither as a carbon, nor a green tax. Despite that, it may be considered a green tax, or a carbon tax, as it does precisely what is expected of such taxes. It decreases the demand for fuels or motivates producers to produce more economic motors/vehicles. The question is to what extent this tax finance investments related to land transport, and how much of a carbon tax it is.

> THE TAXES THAT ARE LABELLED AS "CARBON TAXES" OR "ENVIRONMENTAL TAXES" ARE USUALLY TAXES ON ELECTRICITY, A COAL TAX, AND A GAS TAX

In 2019, the expected budget expenditure on investments and operation costs connected to land transport and infrastructure (EU funds excluded) were EUR 368 million[15]. At the same time, motorists were charged for fees connected to the use of road infrastructure: [See: Table 3].

Table 3: Fees and other payments paid by drivers

Type of fee/tax	The amount collected in 2018, in million EUR
Road toll[16]	124.0
Vignette	76.3
Vehicle tax	167.6
Total	367.9

Source: Annual report NDS 2018[17], Public Sector Budget Proposal 2020-2022[18]

> THE GOVERNMENT HAS LONG PREFERRED THE "SOCIAL" GOAL, PRESERVING 1,800 MINERS' JOBS (PLUS ANOTHER 1,700 ABOVE THE GROUND EMPLOYEES) OVER ELIMINATING THE HEALTH AND ENVIRONMENTAL IMPACT OF THE MINING

Although it may appear that the Slovak government plans its expenditure on road infrastructure based on income, it is just a coincidence. The revenue report does not yet include revenue from vehicle registration fees, which the government does not disclose. These are graded based on engine power and thus, represent another form of an environmental tax.

Since motorists will cover expenditures on infrastructure through different taxes and fees, it could be argued that the tax on motor oils as a whole has the character of a carbon tax.

[15] The infrastructure expenditures ofmunicipalities are financed from the personal income tax (PIT).

[16] Net revenues from the toll system.

[17] https://ww-w.ndsas.sk/uploads/media/18520d89b73d0664afe131df383a8f83e00458e5.pdf

[18] Public Sector Budget Proposal 2020-2022. Available [online]: https://www.mfsr.sk/sk/financie/verejne-financie/rozpocet-verejnej-spravy/#collapse-325601582823933291

Table 4: Calculation of the mineral oil tax per CO_2 tonne

	Kg CO_2 per liter	Levied tax in EUR	The amount of fuel consumption in litres	The volume of CO_2 emitted in tonnes	Calculated payment per tonne of CO_2 in EUR
Diesel	2.685	873,823,500	2,374,520, 380	6,375,587	137.1
Petrol	2.338	370,903,500	720,900,875	1,685,466	220.1

Source: Tax report (2018), own calculations

In 2018, the Slovak state collected EUR 1.27 billion from the mineral oil tax. Approximately 70% represents a tax on diesel[19], 30% is a tax on petrol, and less than 1% is a kerosene tax on LPG and CNG[20]. Diesel is subject to the rate of EUR 0.386 per litre, whereas petrol is taxed at the rate of EUR 0.5145 per litre.

The recalculated rate is significantly higher than the current price of emissions permit of tonne of CO_2[21], which is EUR 23. It is significantly higher than the modelled price, which is considered by Nordhaus in his DICE model, according to whom the value of USD 31 should be enough for maximum of 3.5C warming in 2100[22].

An objection to this recalculation could be the claim that resources from European funds, which replace domestic financing, are the cause of the low national investment in infrastructure. Let us ignore the fact that the point that EU funds should not be used to replace the member states' own expenditure, but rather to promote investments that would not otherwise have occurred. Even the assumption that half of the excise tax on mineral oils collected will be used for road construction and maintenance, or to compensate for the impact on health from transport emissions, an effective carbon tax will be EUR 68 per tonne of CO_2 for diesel, or EUR 110 per tonne of CO_2 for petrol.

The idea that the mineral oil tax finances environmental projects does not influence the fact that the tax already significantly reduces fuel consumption. This is only relevant from the point of view of fiscal neutrality.

EMISSION TRADING SYSTEM

Emission Trading System (ETS) is based on the principle of a gradual (1.74% per year) decrease in total emissions of subjects, which are obligatory parts of the market with emissions. The cap is given on the whole EU level. Each subject either receives a specific number of permits for free (free allocation covers approximately 43% of emissions) or it may acquire them in auctions. In the case a given subject emits less carbon in a given year, it may store its permits for the allowed volume for the future, or sell the remaining allowances to someone who wants to emit more than they were assigned.[23]

The system thus includes a market incentive factor – investments into lower emissions are rewarded by income. Therefore, the emissions with the lowest cost of reduction are reduced first (most effective). The revenues from primary auctions are the income of the member states, which should use them for green projects. The third phase of trading is currently underway, with more than 11,000 trading entities responsible for 45% of greenhouse gas (GHG) emissions of the EU + Norway, Iceland[24].

This system should reduce emissions of selected sectors by 21% by 2020, as compared to fifteen years ago. The following issues from specified sectors are included in trading:

- **carbon dioxide (CO_2)** from power and heat generation:
  - energy-intensive industry sectors including oil refineries, steel works, and production of iron, aluminum, metals, cement, lime, glass, ceramics, pulp, paper, cardboard, acids, and bulk organic chemicals;
  - commercial aviation (until December 31, 2023, the EU ETS will apply only to flights between airports located in the European Economic Area (EEA));
- **nitrous oxide (N2O)** from production of nitric, adipic and glyoxylic acids, and glyoxal;
- **perfluorocarbons (PFCs)** from aluminum production.

> THE IDEA THAT THE MINERAL OIL TAX FINANCES ENVIRONMENTAL PROJECTS DOES NOT INFLUENCE THE FACT THAT THE TAX ALREADY SIGNIFICANTLY REDUCES FUEL CONSUMPTION

Each allowance permit equals to one tonne of carbon dioxide (CO_2), or the equivalent amount of two more powerful greenhouse gases, nitrous oxide (N2O) and perfluorocarbons (PFCs). Small businesses are not included in trading procedures.

According to the European Commission (EC, 2019), the total number of allowances in circulation (TNAC) amounted to EUR 1.65 billion in 2018. Despite fewer EU emission allowances (EUAs) being auctioned in 2018 than in 2017, revenue from auctions increased from EUR 5.5 billion to EUR 14.1 billion. This hike reflects the increase in the average allowance price, from EUR 5.8 per tonne in 2017 to EUR 15.5 per tonne in 2018.

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[19] 88% of diesel is used in road transport, 7,3% on Railway, and 2% in water transport. See: http://www.svetdopravy.sk/moznost-podpory-refundacie-spotrebnej-dane-z-mineralnych-olejov-na-uzemi-slovenskej-republiky/ [in Slovak]

[20] Tax Report (2018). Available [online]: https://www.mfsr.sk/sk/financie/institut-financnej-politiky/publikacie-ifp/ekonomicke-analyzy/50-danovy-report-slovenskej-republiky-2018-oktober-2018-2.html [in Slovak]

[21] The price of permits is determined by available quantity and limited number of sectors which must use them.

[22] Nordhaus, W. D. (2017) *Projections and Uncertainties about Climate Change in an Era of Minimal Climate Policies*, Working Paper No. 22933. Available [online]: http://www.nber.org/papers/w22933

[23] Except for these two options, the polluter can purchase international credits from carbon sink projects (e.g. certified tree planting).

[24] https://ec.europa.eu/clima/policies/ets_en

To make sure that demand for allowance permits is always higher than the supply, Market Stability Reserve (MSR)[25] was established as of January 2019. The European Commission accumulates allowances (e.g. by reducing the amount to be auctioned), so that demand always exceeds supply. In May 2019, it reached a total of 397 million allowances (total of 1.65 billion of EUA were circulating in 2018), which will be placed in the MSR between September 1, 2019 and August 31, 2020[26].

This way, the regulator can gradually increase the price. Even in the fourth trading phase (2021-2030), member states will have the opportunity to acquire almost a half of allowance permits for free in order to achieve competitiveness of countries which could be severely hit by CO_2 reductions and, at the same time, to discourage businesses from reallocating production to countries (carbon leakage), where greenhouse gasses are not paid for/are not taxed. The volume of permits will decrease by 2.2% per year. However, sectors are not equal in access to free allowances – for example, the aviation sector will receive 82% of free allowances, others must be bought[27].

However, trading with allowance permits does not automatically mean that emissions are in decline in a given sector. The aviation sector can be used as an example, since in this sector, emissions have increased by almost 25% in four years, despite the limited volume of allowances. This is also due to the fact that airlines receive more than 80% of the allowances for free.

Electricity and heat production do not receive any allowances for free. The industrial sector started at 80% free acquisition, and by 2020, it will end at 30%. By 2030, when emissions are to decrease by 43% compared to 2005, there will be another 6 billion allowances allocated for free.

[25] https://ec.europa.eu/clima/policies/ets/reform_en

[26] Ibid.

[27] https://ec.europa.eu/clima/policies/ets/allowances/aviation_en

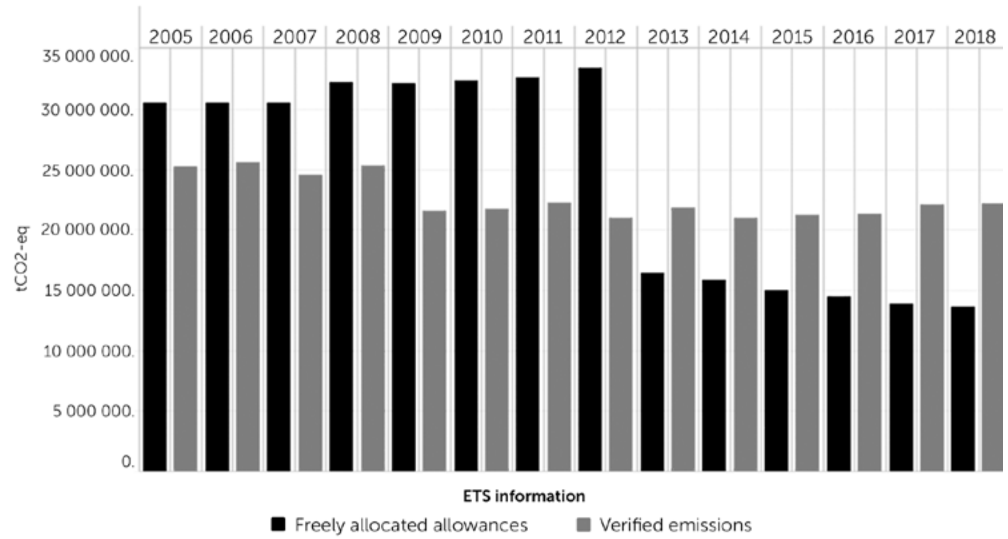
> ”
> TRADING WITH ALLOWANCE PERMITS DOES NOT AUTOMATICALLY MEAN THAT EMISSIONS ARE IN DECLINE IN A GIVEN SECTOR

The total volume of emissions of Slovak producers in ETS has reached 22 million tonnes (verified emissions) of CO_2 equivalent. At the same time, the government received freely allocated allowances equal to 13.6 million tons. The share of free permits reached 62% compared to verified emissions [See: Figure 1].

From the Slovak perspective, it is interesting that due to the high historical basis on which the amount of allowance permits is allocated, the government receives significantly more allowances than the verified emissions in a given year (28 versus 22.2 million tonnes of CO_2). In 2018, 13.7 million tonnes were allocated for free. According to available data, the government sold allowance permits for EUR 230 million[29]. Current legislation prescribes that only 35% of the proceeds of auctions should be used to finance green or environmental projects[30].

[28] EU Emissions Trading System (ETS) data viewer. Available [online]: https://www.eea.europa.eu/data-and-maps/dashboards/emissions-trading-viewer-1

Figure 1: Verified emissions in tons of CO_2 eq. and freely allocated allowances in Slovakia



Source: European Environmental Agency[28]

HOW MUCH COULD WE PAY FOR CARBON? CARBON TAXES AROUND THE WORLD

Carbon taxes were introduced in dozens countries, but the significance of these taxes can be derived from the proportion of emissions that are taxed. A recent overview published by the International Monetary Fund (2019) shows that Scandinavian countries and Ireland are the leaders in Europe in this respect[31].

Carbon taxes cover 40 to 48% of all greenhouse gas emissions, up to 63% in Norway. In the EU, the ETS system covers another 45% of emissions, and thus countries such as Sweden and Ireland achieve together with emissions taxed by carbon tax 80-90% coverage. Meanwhile, Japan has the largest share of emissions included in taxation (68%), but the permit trading system does not work there. In Norway, emissions burdened by taxes are most probably also subject to the mandatory trading system. Sweden has a special position, because it receives more free permits from the scheme than the companies involved emit. The actual volume of emissions in the system has not declined since 2005.

[29] https://euractiv.sk/section/energetika/news/bruselziada-od-statov-cast-vynosov-z-predaja-emisii-slovensko-vaha/ [in Slovak] This would correspond with a price of EUR 15.4/ tCO_2 for all sold allowances, excluding those allocated for free..

[30] https://www.energie-portal.sk/Dokument/vynosy-z-predaja-kvot-co2-mozu-zadotovat-zelenu-energiu-a-domace-uhlie-navrhuje-ziga-105772.aspx [in Slovak]

[31] https://www.imf.org/en/Publications/FM/Issues/2019/09/12/fiscal-monitor-october-2019

Table 5: Structure of GHG emissions in Slovakia

Year 2018	Million tonnes CO_2 eq.
Total greenhouse gases emissions	43.2
Emissions included in the ETS	22.2
Emissions from mineral oil	8.1
Taxable emissions (1-2-3)	12.9

Source: Slovak Hydrometeorological Institute; GHG Inventory 2018

The missing 10% from the total coverage may be the result easily caused by political reasons (various exemptions for households or entrepreneurs), or by the fact that it is administratively difficult to oversee and allocate emissions, which is mostly the case in the agricultural sector.

With respect to rates, there are huge differences between countries. The carbon tax per tonne of CO_2 ranged from USD 3 in Japan to USD 127 in Sweden. The IMF estimated the average world price at USD 2 per ton. To illustrate, 95% of the carbon tax revenue in Sweden comes from taxing motor fuels, which are also subject to an energy tax, in addition to a carbon tax[32].

THE VOLUME OF EMISSIONS IN SLOVAKIA

The latest complete data on emissions in Slovakia are from 2018. According to these, the atmosphere was "enriched" by Slovak 43.2 million tons of CO_2, while nature sequestrated 5.7 million tons of CO_2[33].

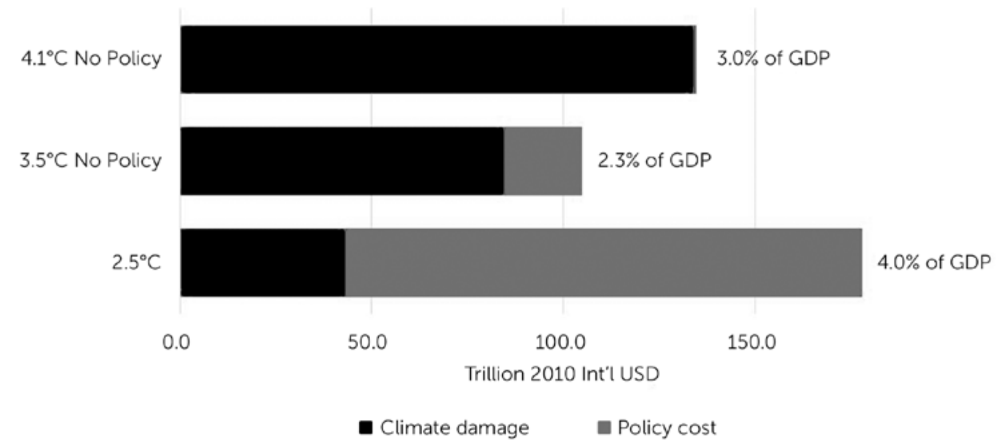
The carbon tax should primarily apply to emissions that are not part of the allowance-trading scheme (ETS), which amounted to 22.2 million tonnes. Also, emissions from transport, which are already burdened with a quasi-carbon tax, must also be deducted. The simplest conversion that may be made is based on the assumption that the Slovak state will be able to tax all residual emissions with a carbon tax. This recalculation represents something as a "ceiling" or the maximum revenue that a government can obtain by imposing a carbon tax [See: Table 5].

CARBON TAXES COVER 40 TO 48% OF ALL GREENHOUSE GAS EMISSIONS, UP TO 63% IN NORWAY

[32] https://www.government.se/48e9fb/contentassets/18ed243e60ca4b7fa05b36804ec64beb/lessons-learned-from-25-years-of-carbon-taxation-in-sweden.pdf#mce_temp_url#

[33] https://ghg-inventory.shmu.sk/documents.php?download=757

Figure 2: Climate and Climate Policy Cost across 21st Century



Source: Bjorn Lomborg based on Nordhaus (2018) calculation[34]

The question remains whether we should include the volume of traded emission permits, which are provided free of charge. This is a fundamental question, as these permits would increase the tax base by more than 100%. However, as the EU envisages maintaining a free allocation until 2030, due to worries about carbon leakage impacting developing countries, these should not be included in the taxable base.

THE CARBON TAX PER TONNE OF CO_2 RANGED FROM USD 3 IN JAPAN TO USD 127 IN SWEDEN

PRICE: THE DYNAMICS AND POTENTIAL TAX REVENUE

Determining the optimal tax rate is not an easy feat for many reasons. Let us just stay with the first issue, which is to determine the aim of the tax. Should the goal of a drop in emissions be only to lower global temperature rise, regardless of cost? Or should it be a decrease in emissions, but only with acceptable loss of wealth, or economic growth? A good illustration of this dilemma is the mentioned DICE model [See: Figure 2].

Of course, the more ambitious the target, the higher the carbon tax would have to be. Nordhaus himself talks about USD 31 to 50.

For the purposes of this analysis, we have decided to use the current price of the CO_2 emissions permit assuming no effect on amount of emissions. As this is a static assumption, we have also included prices of CO_2 for which the International Monetary Fund made impact calculations. This means that in line with the carbon tax assumptions, the rising prices will force consumers to reduce consumption or seek

Table 6: Carbon tax revenues at various prices

Year 2018	Million tonnes CO_2 eq.
Total greenhouse gases emissions	43.2
Emissions included in the ETS	22.2
Emissions from mineral oil	8.1
Taxable emissions (1-2-3)	12.9

Source: Own calculations

alternative options. In its analysis, the IMF worked with conversion values[34] of EUR 31 and EUR 62 (at the date of publication of the analysis). According to the study, emissions in 2030 would fall by 14% or 21% [See: Table 6].

However, the calculation featured in Table 6 assumes that all residual emissions would be subject to a carbon tax. As the current practice of several European countries shows, 10% are not taxed, so the expected return would decrease accordingly. Methodologically, it would be correct to deduct existing carbon taxes, but this would be more of a cosmetic treatment, given their volume of EUR 28 million.

To illustrate the impact of the tax, let us calculate the carbon tax for a household, which uses natural gas to heat, cook, and warm water. Emissions of electricity are calculated on the basis of the national average CO_2 load. When focusing on the carbon tax, VAT – which also applies to consumption taxes – was not included [See: Table 7].

If the household were using hard coal for heating instead of natural gas, the carbon tax load would be 1.7 times higher.

THEORETICAL DECREASE OF TAX REVENUES

The abovementioned calculations may now be used to determine the potential reduction in direct taxes. The key question is which taxes will reflect the proposed reductions. Some economists argue that the highest potential economic growth can be brought about by a reduction in corporate income taxes[36]. Given that the Emissions Trading Scheme already allocates free allowances to the most affected companies today, compensation in this case is not necessary.

[34] MF (2019) *Fiscal Policies for Implementing Paris Climate Strategies*. Available [online]: https://www.imf.org/en/Publications/Policy-Papers/Issues/2019/05/01/Fiscal-Policies-for-Paris-Climate-Strategies-from-Principle-to-Practice-46826

[35] https://twitter.com/BjornLomborg/status/1102627948962697221

[36] A concept economists use to estimate the excess burden of taxes is the Marginal Cost of Public Funds (MCF). Ferede and Dahlby (2016) describe the MCF as a "measure of the loss incurred by a society in raising an additional dollar of tax revenue" (p.1). In 2013, Ferede and Dahlby (2016) estimated that the MCF in BC for the corporate income tax (CIT) was 3.19 and for the personal income tax (PIT) it was 2.86. That means that if BC raised its statutory CIT rate to raise an additional dollar of revenue, holding all else equal, the additional cost over and above the government revenue raised would be USD2.19. These figures for BC also show that it is currently more costly to raise an incremental dollar of revenue in the province through a CIT increase than PIT increases. On tax efficiency, see also Clemens, Veldhuis, and Palacios (2007). QUated from: https://www.fraserinstitute.org/sites/default/files/examining-the-revenue-neutrality-of-bcs-carbon-tax.pdf

Table 7: Annual carbon tax paid by a regular household

Family house, annual consumption	kwh	tCO_2	
Natural gas	17.500	3.3	
Electricity	1.500	0.2	
Total		3.5	
Carbon tax rate	**EUR 23**	**EUR 31**	**EUR 62.2**
Carbon tax annually	80.5	108.7	217.3
Monthly in EUR	6.7	9.1	18.1

Source: Own calculations

The biggest increase in the burden will be on households, who will pay more for gas, electricity, or agricultural products. Given the transfer of total amount of personal income tax to the budget of the local government, a reduction of this tax is not an appropriate tool – it would have to be supplemented by other transfers. Therefore, a reduction of social security contributions shall be considered. Their collection and usage do not involve the private sector, as in the case of health care, and subsidizing the Social Insurance Agency from the budget has a long tradition in Slovak public administration [See: Table 8].

If this reduction in rates were reflected as an increase in the employee's net income with a salary of EUR 1,000 per month, there would be an increase in income of EUR 17. Such an increase could cover the additional cost of the modelled carbon tax for a household with a family home, at the highest rate of carbon tax it would be only one euro less.

However, the fact that a low-income household with an income of EUR 650 has relatively low contributions paid and thus net income will increase by only EUR 11 shall also be taken into account. While this would still be enough to cover the tax rates of EUR 23 and EUR 31, it raises the question of whether it is desirable to provide compensation of EUR 28 to a family with an income of EUR 2,000 per month, when both households have the same gas consumption. Reducing the rate will thus give a different advantage at the same level of pollution.

Equally, higher increases in energy will affect pensioners' households and households without regular income, which do

> IN LINE WITH THE CARBON TAX ASSUMPTIONS, THE RISING PRICES WILL FORCE CONSUMERS TO REDUCE CONSUMPTION OR SEEK ALTERNATIVE OPTIONS

not pay any social security contributions. An alternative in this case could be the introduction of a reduced VAT rate, but this means failing to decrease direct taxation [See: Table 9].

A lower VAT rate of 18.4% would generate monthly savings of around EUR 5 with the average pension benefit of EUR 460. Even in this case, however, the rate cut does not guarantee an even distribution of benefits, so it is quite likely that the government might make direct grant transfers. This consideration also points to the fact that the effective achievement of the fiscal neutrality is not at all easy.

FISCAL NEUTRALITY

Sweden currently has the highest carbon tax rate – EUR 114 per tonne of CO_2. This rate has been gradually increased since 1991, while taking compensatory measures to reduce the impact of raising the tax – specifically, for low-income groups. The introduction of a carbon tax was accompanied by a reduction in energy taxes, as well as direct taxes, on labor and capital. Higher transfers to low-income individuals should have reduced energy poverty. The most affected industry faced slower tax growth, but the rates have already been equalized. The rate was also widely discussed with all involved parties.

> SWEDEN CURRENTLY HAS THE HIGHEST CARBON TAX RATE – EUR 114 PER TONNE OF CO_2

The next case of a country that has introduced a "textbook" carbon tax is the British Columbia Province of Canada. Unlike Sweden, here the government has openly declared the goal of fiscal neutrality. Other taxes were reduced by an increase in carbon tax revenues. The tax was introduced in 2008 at USD 10 per tonne and it reached USD 40 per tonne in 2019. In 2021, Canada is to pay a federal carbon tax of USD 50 per tonne. The tax was imposed on 70% of the country's emissions. As in Sweden, a carbon tax was introduced in addition to the motor fuel tax. Currently, the total tax rate in the majority of the country is 24 cents per litre of petrol, and 25 cents per litre of diesel. In Vancouver, these rates are at 36 and 38, which means 26 eurocents. A half, compared to the excise duty in Slovakia. According to the available estimates, the tax did not reduce total emissions, but due to a rising population, the emissions of CO_2 per capita decreased from 15,000 to 13,000 tonnes (8,000 in Slovakia)[37].

Table 8: Potential impact of carbon tax revenues on payroll taxes

Rate of the carbon tax in EUR/tCO_2	23	31	62
Decrease in revenues of social contributions in %	5.9%	7%	12.6%
New contributions rate paid by an employee in % (nowadays 9.4%	7.3	7.0	5.0

Source: Own calculations based on the expected revenues from the social insurance for 2019 in Slovakia

Table 9: Revenue neutral decrease of VAT rate

Rate of carbon tax in EUR/tCO_2	23	31.045	62.09
New basis for the GDP rate (nowadays 20%)	18.4	18.1	16.6

Source: Own calculations based on public VAT revenues 2019

In order to prevent energy poverty, the British Columbia government lowered the lower two brackets of the personal income tax rate and introduced the so-called Low Income Climate Action Tax Credit. The companies received abolished sales tax on the purchase of electricity.

However, the government has recently abandoned the idea of a revenue-neutral tax, and uses part of the carbon tax revenue to finance green technologies.

This is probably the most fatal problem of this promise. Carbon tax revenues may be unstable. Consumption elasticity may be lower than economists estimate, and meeting the emission reduction target may require a rate increase, as we see in Sweden and British Columbia. Increasing carbon tax revenues will require an increase in the amount of other tax revenues to offset the effects of a carbon tax. The government may not like this, of course, as it will reduce its room for maneuvering to meet its priorities.

However, the systemic carbon tax problem needs to be mentioned. Without a multinational application of this tax, especially in G20 countries (including the United States, India, and China), Slovakia's emission target can be met, but the strategic objective of slowing warming remains unfulfilled. For this reason, any carbon tax proposal should also be accompanied with alternative approaches that take into account the international factor. Adaptation can be cheaper than blowing against the wind.

CONCLUSIONS

From the calculations of carbon tax offsets and the evolution of carbon tax in several countries, the following characteristics of the fiscal neutrality promise of carbon tax may be identified:

1) If the carbon tax will not be applied across the board, covering all emissions, it will fail to meet the goal of making the most efficient technologies winners of the competition for optimal technology. This is true both in Slovakia and throughout the world.

2) The commitment to fiscal neutrality can be easily changed, which will have a negative effect on the country's slower economic growth and reduce competitiveness. The result will be a higher tax burden.

> CARBON TAX REVENUES MAY BE UNSTABLE

[37] http://www.env.gov.bc.ca/soe/indicators/sustainability/ghg-emissions.html

ADAPTATION CAN BE CHEAPER THAN BLOWING AGAINST THE WIND

3) Carbon tax revenues in Slovakia are limited due to the already existing high taxation of fuels and relatively low amount of emissions.

4) The expected tax revenue is relatively low at the carbon tax rate set at the current level of the permits price. If the compensation were secured by reducing the tax burden on labor, this would have fallen from 42.9% to 41.7% at a wage of EUR 1,000. The decrease would be more pronounced at the highest rate of the carbon tax, with the tax burden falling to 40.3%.

These risks and negative impacts of the carbon tax could be mitigated by the following measures:

a) fiscal neutrality to be monitored by an independent body – for instance, the United Kingdom has respected UK Budget Board Green Fiscal Commission;

b) carbon tax should be set as a floor – coordination with EU ETS permits pricing is needed;

c) the needs of vulnerable economic sectors and households must be addressed; the Slovak government has large revenues from the sale of emission allowances which it should use to offset the effects of the carbon tax. Any other direct subsidies for green technologies distort the key advantage of a carbon tax, not the government, but market competition should select the winning technologies.

Carbon tax is often presented as an easy win-win solution for controlling the growth of GHG emissions. Nevertheless, once we start to deal with the barriers of practical implementation of this tax, we realize that the tax is not such a clear win.

Just like any other tax, it generates negative impacts whilst sufficient decline in emissions occurs only when set at high rates, and globally. Application of the rule of a fiscally neutral implementation of this tax may eliminate the resistance generated by the general public. Nevertheless, this rule opens the question of wealth redistribution and risk for taxpayers that politicians will not stick to their promise and increase the overall tax burden.

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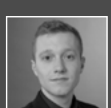
RADOVAN ĎURANA

Co-Founder and Analyst in INESS, where he specializes in taxation, pensions, and business environment. Formerly, he worked in a commercial institution as a credit risk analyst

Sectoral Banking Tax: Risks, Impacts, and Possible Consequences for the Czech Economy



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MICHAEL FANTA

Sectoral tax, i.e. higher taxation, which affects only selected sectors of the economy (such as banking, insurance, energy, telecommunications, or the information technology segment) is considered to be an effective tool for increasing state budget revenues. However, the new proposals put forward in the Czech Republic discuss only additional tax revenues, whilst totally neglecting the additional social costs in the form of unintended impacts caused by the imposition of a sectoral tax on selected segments of the national economy.

The imposition of a sectoral banking tax involves risks of interrupting continuous development by disrupting steady market growth, and forcibly seeks for a new equilibrium with negative implications for the confidence of clients. Given the importance of the banking sector on strong economic development, the abovementioned changes may cause national economic fluctuations and could potentially jeopardize competitiveness. As many foreign experiences have shown, the sectoral banking tax can bring with it a number of negative consequences; costs of which were borne not only by savers or other bank clients, but also by taxpayers.

> THE IMPOSITION OF A SECTORAL BANKING TAX INVOLVES RISKS OF INTERRUPTING CONTINUOUS DEVELOPMENT BY DISRUPTING STEADY MARKET GROWTH

Moreover, such a serious intervention in the economy increases the risk of market uncertainty. The sectoral banking tax can become a dangerous precedent for other sectoral taxes, such as the energy sector or telecommunications. Significant changes in the market environment are also a negative signal for foreign investors.

WHAT THE SECTORAL BANKING TAX MIGHT LOOK LIKE?

Experiences around Europe offer a wide range of forms of sectoral banking tax, which differ mainly in the concept of the tax base on which the tax determination is derived. The tax base may be, for example, total liabilities minus equity and insured deposits (Austria, Belgium, Slovakia) or total liabilities, excluding all deposits but including derivatives (Germany) or total assets (Hungary, Poland)[1]. Sectoral banking taxes may, of course, differ in the size or in its progression (tax rate depends on the size of the bank´s balance sheet items).

In some cases, the main reason for the implementation of the banking tax was the foundation of financial reserves to be used for the possible remediation of the banking system in further economic recessions, as was during the global financial and economic crises in 2008-2009; some governments were forced to remediate insolvent banks from the state budget. The Czech banking sector emerged unscathed from financial and economic turmoil, and did

[1] CYRRUS (2017) *Analýza dopadu sektorového zdanění bank*. [in Czech]

SECTORAL BANKING TAX CAN BRING WITH IT A NUMBER OF NEGATIVE CONSEQUENCES; COSTS OF WHICH WERE BORNE NOT ONLY BY SAVERS OR OTHER BANK CLIENTS, BUT ALSO BY TAXPAYERS

not require any financial injections while its lending activity significantly helped the Czech economy return to economic prosperity.

According to the Czech Social Democratic Party (ČSSD), as a leading supporter of such instrument, the sectoral banking tax might take the form of a levy on the volume of total assets, while the tax rate is expected to grow progressively from 0.05% to 0.3%[2], depending on the total amount of assets. The aim of the sectoral banking tax is simple – bring more finances into the state budget without any negative social or economic consequences. Party leaders argue that higher costs will not fall on bank clients, because the high rate of competitiveness in the Czech banking sector will absorb all possible price increases of financial products. The current proposal of sectoral banking tax also calculates additional state revenues of CZK14 bn (EUR 0.56 bn). That is basically it, no more arguments from proposers or relevant economic analysis about risks and related effects. Can such a fiscal tool really be so innocent? Let us see how some negative aspects might look like, and who will pay these costs in the end.

NEGATIVE IMPACTS OF A SECTORAL BANKING TAX

In order to fully understand the consequences of implementing the sectoral banking tax in the Czech Republic, estimating its impact is crucial. Therefore, the following estimates are based on real variables, market indicators, and research results.

1) PRICE INCREASE OF FINANCIAL PRODUCTS

The rational response to the increased cost in the industry, and to the threat of decreasing profitability, is naturally a rise in final product prices. Financial institutions are tied up by their financial plans and performances of which their management is responsible to the owners of their shares. The economic theory postulates that increasing costs are usually divided between the company and its customers (part of the cost is borne by the company and the other part is passed on to the customer through rising production prices). The ratio in which the additional costs are divided depends mainly on the elasticity of demand for the good.

A very common argument of the Czech Social Democrats' is that the increased costs of banks will not be felt by clients, but by the banks themselves. However, as foreign studies show, the overall cost increase across the sector is always passed on to the end customers. Research about effects of sectoral taxation in the euro area has shown that banks are able to pass on the raised costs (caused by banking tax) to their clients, from 45% in the short term (i.e. immediately after implementation), to 80% in the long term[3]. Results of further research indicate that the pass-through of the additional costs generated by the sectoral tax to clients of banks might be up to 90%[4].

THE AIM OF THE SECTORAL BANKING TAX IS SIMPLE – BRING MORE FINANCES INTO THE STATE BUDGET WITHOUT ANY NEGATIVE SOCIAL OR ECONOMIC CONSEQUENCES

In this context, an increase in the price of financial products means, in particular, an increase in interest rates on loans or a decline in interest rates on deposits. Moreover, foreign experience (e.g. Hungarian, Polish and Slovakian) shows how much on average banks raised interest rates in order to partially eliminate the financial losses caused by the imposition of a sector tax.

A rise in interest rates is strongly dependent on the sector's level of market concentration. In EU countries (where the sectoral banking tax is implemented) with a high sectoral market concentration, interest rates on loans increased by up to 0.77 percentage points[5]. This conclusion undermines the Czech Social Democrats' argument about the "competitive dissolution" of the burden of sectoral tax on clients. The above analogy might be used correctly for Czech conditions, where the banking sector is a highly concentrated market.

Impact on Households

The conclusions of foreign studies confirm that the risk of passing on costs to consumers through increased interest rates is real, and should be taken into account when considering the introduction of a sectoral banking tax. According to the Hungarian experience, it is partially predictable to which group of consumers the tax burden would most likely be passed on. The introduction of a sectoral banking tax in Hungary has led to an increase in interest rates for consumers with the lowest demand elasticity, i.e. for households who are repaying mortgage loans[6]. Households are, therefore, those customers who just have to accept higher interest rates because they have nothing else to do if they do not want to lose their homes.

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[2] https://www.ceskenoviny.cz/zpravy/bankovni-dan-podle-cssd-ma-mit-podobu-odvodu-z-aktiv/1752027 [in Czech]

[3] Chiorazzo, V. and C. Milani (2011) "The Impact of Taxation on Bank Profits: Evidence from EU Banks", [in]: *Journal of Banking and Finance*, Vol. 35, pp. 3202–3212.

[4] Albertazzi, U. and L. Gambacorta (2010) "Bank Profitability and Taxation", [in]: *Journal of Banking and Finance*, Vol. 34, pp. 2801–2810.

[5] Capelle-Blancard, G. and O. Havrylchyk, O. (2013) *Incidence of Bank Levy and Bank Market Power*, CEPII Working Paper No. 2013-21.

[6] Capelle-Blancard, G. and O. Havrylchyk (2014) "The Ability of Banks to Shift Corporate Income Taxes to Customers", [in]: *Taxation and Regulation of the Financial Sector*, MIT Press, pp. 253–278.

The sectoral banking tax would probably also have similar consequences in the Czech Republic. Low-income families are very often characterized by rational ignorance due to lower levels of education (approximately 427,000 low-income households are characteristic for primary or lower secondary education)[7], which makes their demand elasticity of financial products even lower.

Impact on Business

As the sectoral banking tax entails serious consequences in the form of price increases for banking products, i.e. an increase in interest rates on credit loans, it is also necessary to consider the possible impacts on the business sector. It is not only small and medium enterprises (SMEs) that are considered as key sources of employment and innovative activities. Small entrepreneurs are also often dependent on available services in a healthy financial sector that is able to provide enough capital for their operating and investment activities (non-financial corporations hold 35.6% from the total amount of loans, households hold 49.3%; small entrepreneurs hold 1.4%)[8].

An increase in loans to entrepreneurs can seriously jeopardize the operating and investment activities of enterprises. The borrowers took the loans with some expectation about the future development of interest rates, which could change due to the shock caused by the banking tax, and this would depreciate their business plans. The increased cost of loan financing will then necessarily be reflected either in the final output prices of companies for which their customers pay, or, in the reduction of production capacities and thus a reduction in the number of employees (or in a wage reduction).

[7] Czech Statistical Office (2019) *Main Macroeconomic Indicators.*

[8] Czech National Bank (2019) *Main Indicators (ARAD).*

> THE PASS-THROUGH OF THE ADDITIONAL COSTS GENERATED BY THE SECTORAL TAX TO CLIENTS OF BANKS MIGHT BE UP TO 90%

2) SLOWDOWN OF ECONOMIC GROWTH

GDP Growth

At the same time, all the abovementioned impacts of the sectoral banking tax are also key determinants of the development of a very important performance indicator of the banking sector – the dynamics of credit lending. Credit growth in the economy is also strongly linked to other macroeconomic indicators, including GDP growth.

The sectoral banking tax may weaken credit growth in the economy, as the IMF pointed out to the Polish government in its analysis in 2016. The conclusion of this analysis predicted a decline in lending activity by 2-3 percentage points[9]. Moreover, we can expect a slowdown in the growth of credit lending in the Czech Republic during the upcoming period mainly due to increased interest rates by the Czech National Bank, which, among other things, determine the level of interest rates on loans. The period of cheap mortgages past behind Czech consumers and mortgage loans are now not only less affordable, but also more expensive. Implementation of the sectoral banking tax and the associated consequences would thus further exacerbate the current slump in lending activity.

[9] IMF (2016) *Republic of Poland, Selected Issues.*

Table 1: Estimation of the impact of sectoral banking tax on GDP growth rate in the Czech Republic

	Expected decline in the credit growth rate	Expected decline in the GDP growth rate	Deviation from projected state budget revenues	Decrease in state budget revenues (absolute amount)
1st scenario (optimistic)	-1 pp	- 0.43 pp	-0.39 pp	CZK -5.715 mn (EUR 228 mn)
2nd scenario (realistic)	-2 pp	- 0.87 pp	-0.78 pp	-CZK 11.429 mn (EUR 457.2 mn)
3rd scenario (pessimistic)	-3 pp	- 1.3 pp	-1.17 pp	-CZK 17.145 mn (EUR 685.8 mn)

Source: Own calculation

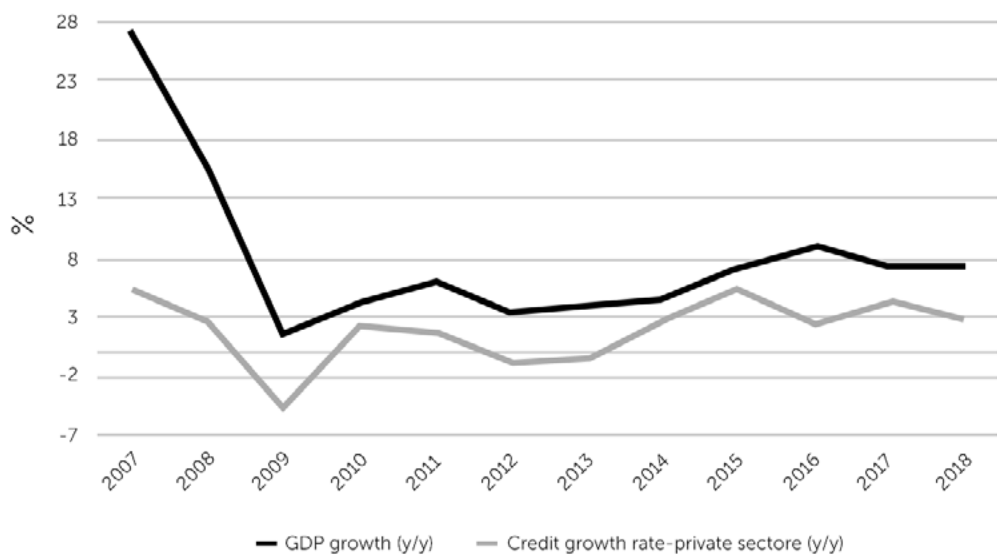
> THE INTRODUCTION OF A SECTORAL BANKING TAX IN HUNGARY HAS LED TO AN INCREASE IN INTEREST RATES FOR CONSUMERS WITH THE LOWEST DEMAND ELASTICITY, I.E. FOR HOUSEHOLDS WHO ARE REPAYING MORTGAGE LOANS

The relationship between credit growth and GDP growth has been addressed in a number of international studies, and their conclusions confirm the strong dependence of both variables[10]. The decline in lending activity by 3 percentage points may cause a GDP growth slowdown by 1.3 percentage points[11]. The impact of the sectoral banking tax on the Czech economy can also be partially estimated from this relationship. The calculation of the three possible scenarios is illustrated in Table 1.

[10] A 2.5 percentage point decline in capital adequacy may cause a 1.5 percentage point slowdown in GDP growth. See: Bayoumi, T. And O. Melander (2008) *Credit Matters: Empirical Evidence on US Macro-Financial Linkages*, No. 8-169, International Monetary]). A 4 percentage point decline in lending activity (credit growth) will cause a 0.8-1.4 percentage point slowdown in GDP growth [See: MMF (2008) *Global Financial Stability Report, April 2008: Containing Systemic Risks and Restoring Financial Soundness*.

[11] Greenlaw, D., Hatzius, J. Kashyap, A., and H. Shin (2008) *Leveraged Losses: Lessons from the Mortgage Market Meltdown*, a draft paper prepared for US Monetary Policy Forum Conference.

Figure 1: GDP growth rate and Credit growth rate in the Czech Republic



Source: Czech Statistical Office, Czech National Bank

Alternatively, the estimation of fiscal impact can be calculated using the results of studies that examine the relationship between actual and predicted GDP growth values and their fiscal revenues dependent on them. Based on the forecast for GDP growth in the following year, the Czech Ministry of Finance also predicts its future state budget revenues. If the sectoral banking tax causes an unexpected decrease in the GDP growth rate, the actual state budget revenues will also deviate from the expected ones. The conclusion of the study examining the deviations of the state budget revenues in the EU countries states that the decrease of the actual GDP growth rate by 1 percentage point compared to the expected one will cause the actual state budget revenues to decline by 0.9 percentage points compared to the expected amount[12]. Based on this relationship, Table 1 also illustrates the calculation based on the planned revenues of the state budget for 2019, amounting to CZK 1,465.36 bn (EUR 58.6 bn)[13].

The current proposal of sectoral the banking tax calculates with additional state revenues of CZK 14 bn. After taking into account the unintended impacts from the first scenario, the final balance of revenues and costs of the sectoral banking tax would be CZK +8.285 bn (EUR 0.33 bn). If the second scenario is fulfilled, the final balance will amount to CZK +2.56 bn (EUR 0.1 bn). If the consequences of the third scenario are fulfilled, the state budget will ultimately lose CZK -3.145 bn (EUR -0.13 bn).

[12] Afonso, A. and R. Carvalho (2014) *Revenue Forecast Errors in the European Union*. Department of Economics, ISEG-UL, Working Paper, (02).

[13] Ministry of Finance of the Czech Republic (2019) *State Budget 2019*.

The Risk of a Deep Economic Recession and the Bank System's Remediation

Unlike many other EU countries (but also the USA, for example), Czech banks were in good shape at the time of the 2008/2009 financial and economic crises, and their stable lending activity helped bring the Czech economy out of a recession. As Figure 1 illustrates, the credit growth rate to the private sector over the whole period exceeds the GDP growth rate, and banks thus contribute significantly to the growth and prosperity of the Czech economy.

Future security of stable lending activity may be jeopardized by the implementation of a sectoral banking tax, as one of its possible impacts is an increase in interest rates on loans, which may reduce the dynamics of lending to the private sector and thus change the trend. This fact would then be very destructive in the next economic recession, when banks will not have the necessary financial resources to support and quickly resume growth in the Czech economy.

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AN INCREASE IN LOANS TO ENTREPRENEURS CAN SERIOUSLY JEOPARDIZE THE OPERATING AND INVESTMENT ACTIVITIES OF ENTERPRISES

”

THE SECTORAL BANKING TAX MAY WEAKEN CREDIT GROWTH IN THE ECONOMY

The weakening of the banking sector's stability will not be immediately apparent. It is likely to be most visible only in times of economic crisis or economic recession. For this reason, some EU countries had to help effected banking institutions with money from public budgets during the 2008-2009 financial and economic crises. These unplanned government expenditures, which could have been used differently, have only increased public budget deficits. In order to avoid this unpleasant experience, it is essential to maintain the stability of the banking sector at least at its current level, and not burden it with additional taxes. The consequences of doing so may aggravate not only banks, but also the economy as a whole.

3) FINANCIAL SECTOR SECURITY

As past foreign experience shows (see below), the implementation of a bank sector tax entails a number of risks that can significantly shake stability in the banking sector. The latest results of the stress test of Czech banks, which are regularly published by the CNB, indicate currently stable banking with sufficient capital equipment[14].

[14] Czech National Bank (2018) *Rizika pro finanční stabilitu a jejich indikátory.* [in Czech]

> THE PERIOD OF CHEAP MORTGAGES PAST BEHIND CZECH CONSUMERS AND MORTGAGE LOANS ARE NOW NOT ONLY LESS AFFORDABLE, BUT ALSO MORE EXPENSIVE

The Polish Experience

The Polish experience with the sectoral banking tax shows relatively substantial impacts on the financial sector. The first was the immediate downgrading of Poland's rating, along with the prediction of the negative outlook (S&P downgraded both short and long-term domestic ratings from "A- / A-1" to "A / A-2", Moody's downgraded "A2" from stable to negative). The rating, and its changes, is one of the essential pieces of information for domestic and foreign investors. Any subsequent reaction of investors is immediately reflected in the entire economy via the exchange rate. The immediate reaction to the downgrading of the rating was the fall in prices of Polish shares, and the depreciation of the Polish zloty[15].

After the implementation of the sectoral banking tax in Poland, Polish banks' profitability soon declined, but it was temporary. Banks' profitability fell by more than 11% between 2016 Q1 (PLN 3.2 bn) and 2017 Q1 (PLN 2.8 bn). Profitability decline was deepened by the obligation to finance recapitalization of saving cooperatives, as well as financial difficulties with loans held in Swiss francs. Polish banks, after the imposition of the tax burden, recorded the lowest gains since 2010, when the local economy was still torn by the effects of the global financial and economic crises[16]. In order to compensate financial losses, interest rates on loans and interest rates on deposits were raised, and the lending was redirected from low margin investment and mortgage credit toward consumer credit, thus increasing the net interest margin. Banks also partially offset the negative impact of increased costs by reducing their personnel costs and reducing the number of employees. In the end, the burden of the tax was shifted on to their customers.

> SOME EU COUNTRIES HAD TO HELP EFFECTED BANKING INSTITUTIONS WITH MONEY FROM PUBLIC BUDGETS DURING THE 2008-2009 FINANCIAL AND ECONOMIC CRISES

The link between the banking sector and the rest of the financial sector also shows the negative impact of the sectoral banking tax on the financial results of more than half of all Polish insurance companies, whose investment activities declined. Another direct consequence was the immediate decline in the value of banks listed on the Warsaw Stock Exchange, as their price-to-book value ratio dropped to low levels from the 2008-2009 global financial and economic crises[17].

The Hungarian Experience

Hungary also has an experience with the sectoral banking tax. Empirical studies show that a banking tax in Hungary caused an increase in the net interest and fee margin, especially for large banks compared to small banks. For large banks, the net interest and fee margin increased by 0.84 percentage point[18]. The increase in this indicator shows that banks have passed the costs associated with bank tax to their clients, mainly through higher interest rates on loans.

Interest rates increased the most for clients who have already been repaying house loans, not new loans generated. The rate on these mortgage loans increased by 108 basis points after the introduction of the tax.

> AFTER THE IMPLEMENTATION OF THE SECTORAL BANKING TAX IN POLAND, POLISH BANKS' PROFITABILITY SOON DECLINED, BUT IT WAS TEMPORARY

The Slovakian Experience

Slovakia imposed a sectoral banking tax in 2012. The basis for calculating the tax is the volume of deposits, with the tax rate set at 0.4%. One year after the introduction of the tax, banks experienced a decline of almost 25% in profitability. Three years later, the tax rate was reduced to 0.2% because of its destructive effects[19]. According to the Slovak National Bank, banks' profitability has been significantly reduced[20], which threatens the stability of the banking sector, weakens banks' ability to finance the growth of the domestic economy, and worsens the competitiveness of banks in the European market[21]. Thus, the Slovak government

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15 https://www.ft.com/content/f7ea634e-d72d-32ea-bbd9-8c2f1cfc44cd

16 Narodowy Bank Polski (2018) *Annual Report 2017.*

17 CYRRUS (2017) *Analýza dopadnu sektorového zdanění bank*. [in Czech]

18 Capelle-Blancard, G. and O. Havrylchyk (2013) *Incidence of Bank Levy and Bank Market Power*.

19 https://www.novinky.cz/ekonomika/430719-slovaci-varuji-cechy-pred-dani-pro-banky-maji-zkusenost.html

20 https://www.nextfuture.sk/banky/sadzba-bankoveho-odvodu-zostava-do-roku-2020-nezmenena/

21 https://ekonomika.sme.sk/c/20207470/bankovy-odvod-sa-neznizi.html#ixzz5nR7EZL00

> THE SECTORAL BANKING TAX COULD SUBSTANTIALLY DEEPEN THE CURRENT DECLINE IN CZECH BANKS' LENDING ACTIVITY

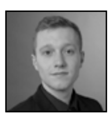
finally approved its complete abolition, effective from the beginning of 2021.

CONCLUSIONS

The analysis of the effects of the sectoral banking tax has revealed a number of negative consequences and extensive risks, which are undoubtedly connected with the implementation of this selective fiscal instrument. The short but rich experience of a sectoral banking tax in European countries proves that its costs are not only incurred by the banks themselves, but also by citizens, not only as bank clients, but also as taxpayers. The impact on the citizens is therefore cumulative.

Immediate consequences of the sectoral banking tax can be demonstrably seen in price increases of financial products, and a disruption of the natural development on the financial market, which weakens the dynamics of the banking sector and is also reflected in the long-term stability of economic growth. Moreover, many of the consequences of a sectoral banking tax do not need to necessarily take effect immediately after its implementation, but later at times when it is least appropriate – in times of economic crisis or economic recession.

The proposal of Czech Social Democrats to introduce a bank tax is insufficiently analyzed. Implementation of a banking tax, however, entails a number of undesirable and unintended impacts, which will ultimately also effect the overall balance of fiscal revenues. The sectoral banking tax could substantially deepen the current decline in Czech banks' lending activity, which will also be reflected in the revenue side of the state budget through a decline in GDP growth rates.



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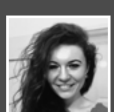
MICHAEL FANTA

Analyst at CETA – Centre for Economic and Market Analysis. Graduated at the University of Economics in Prague, currently Ph.D. candidate at the UJEP University. His research focuses on Shadow economy, net industries and unintended effects of regulation and taxation

Taxation on Consumption in the Czech Republic: Alcohol, Beer, and Wine



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> THE CZECH REPUBLIC DOES NOT HAVE A SEPARATE CAPITAL GAINS TAX FOR INDIVIDUALS OR FOR CORPORATIONS

The system of consumption taxation showcases a country's public finance system. It does not only show how much functional compromise is found in the country between "free-to-choose" economic freedom of the individual, and seeking resources to eliminate negative externalities resulting from the consumption of taxable substances. Taxing consumption also allows lowering the taxation of labor and capital.

The tax wedge in the Czech Republic in 2018 was 43.7. A tax wedge measures the difference between the cost of labor and the take-home pay of the worker, expressed as a percentage of the cost of labor. Put in simpler terms, it is the difference between wages before and after taxes. The formula for calculating a tax wedge is ((PIT + social security contributions of the employee and employer)- family benefits) ÷ total labor cost). A tax wedge of 43.7 means that the average single Czech worker takes home just 56.3% of what their employer paid.

As the tax wedge increases, workers tend to have less incentive to seek legitimate, tax-paying work as they receive a decrease in the take-home pay. If PIT were to increase in the Czech Republic, in this case (as a result of the elimination of excise taxes) we can expect to see the tax wedge grow larger, which could lead to an increase in people seeking illegitimate (non-tax paying) work.

Currently, the Czech Republic does not have a separate capital gains tax for individuals or for corporations; capital gains are included in PIT and CIT. There are also a few cases in which capital gains are exempt, mainly pertaining to property. These exemptions for individuals are: three years of direct ownership of a joint stock company or of a fund (five years of ownership for other companies), two years of ownership for an individual's primary residence (five years of ownership for other real estate), and one year of ownership for cars, boats, and planes. It is likely that without a consumption tax some, if not all, of the capital gains in these currently exempt cases would become included with the other, non-exempt, capital gains in the 15% PIT rate in order to make up for the loss.

This phenomenon also shows how the tax administrator of a comprehensive system of set excise tax rates dealt with specific factors, such as the formal form of the tax system and its efficiency. Including (but not limited to) the structure of the economy, purchase power, location and size of the state, setting up the taxation system in neighboring countries, the size of the black market, among other aspects.

The efficiency of the consumption taxation system can be defined as a vector of several parameters: 1) stability, 2) simplicity and comprehensibility, and 3) flexibility or shock absorption capacity caused by social changes.

In addition to the general description, some of the new challenges that are related to social and consumer behavior need to be identified. There are, however, certain challenges that can, and obviously will, in the coming years, put pressure on the negative development of the collection of consumer taxes. This is, of course, an undesirable phenomenon. In the public finance system with a high proportion of mandatory (legally determined) expenditure, any outage is undesirable. Revenues from excise duties are a stable anchor in the Czech Republic's public finance system, and so should stay as such.

> IN THE PUBLIC FINANCE SYSTEM WITH A HIGH PROPORTION OF MANDATORY (LEGALLY DETERMINED) EXPENDITURE, ANY OUTAGE IS UNDESIRABLE

STATE BUDGET REVENUE AND EXCISE TAX SHARE

Excise duties are indirect and selective taxes, which are mainly introduced for the purpose of increasing state budget revenues and regulation of consumption on selected goods on the market. Regulation on consumption of selected goods is based on the assumption of their harmfulness for users, or society as a whole.

The introduction of excise taxation on selected goods achieves an increase in their value prices, which usually leads to a reduction in their consumption. Reducing the amount of such goods consumed limits the negative impact they have on individuals and society.

Excise taxes have been used in the Czech Republic since its establishment on January 1,1993. Their subjects are selected products, which include mineral oils, alcohol, beer, wine, intermediate commodities, and tobacco products. It is not unusual that excise duty on such products is more than half of their final price. Excise duties reliably fulfill the function of increasing the revenue of the state budget [See: Table 1]

Throughout the monitored period between 2010 to 2018, excise tax revenue accounted for a significant part of the state budget revenue. The share of excise taxes in the state budget revenues has been gradually trending downwards from 13% to 11 %, but excise tax revenue is increasing in absolute terms. As the GDP rises, the amount of, for example, alcohol sold, does not necessarily increase at the same rate. This leads to a situation where excise tax revenue is increasing as an actual amount, but as a percentage of total budget revenue it is heading on a downward trend [See: Table 1]. At the same time, income tax revenue is trending upwards both as an absolute amount, and as a percentage of budget revenue. In 2018, excise tax revenue was CZK 153.7 bn (CZK 26.1 bn more than in 2010).

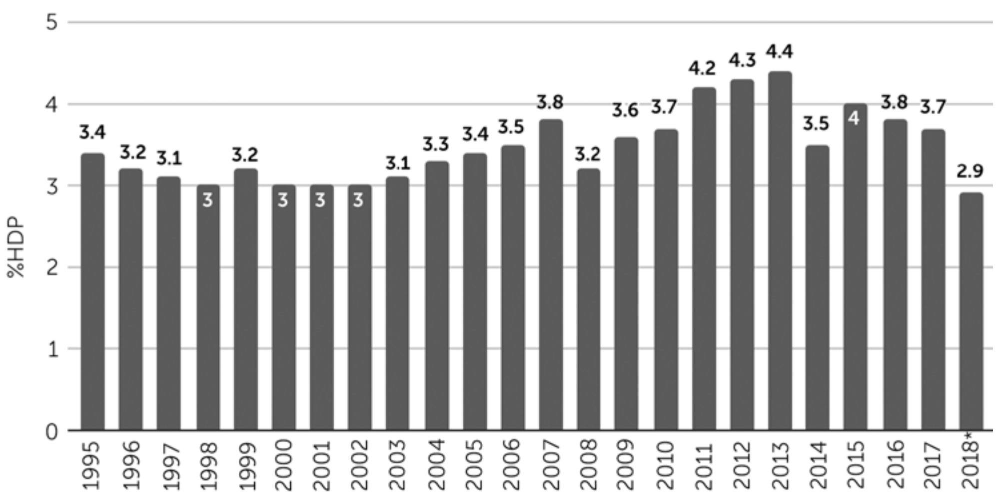
Table 1: State budget revenue and excise tax share

		2010	2011	2012	2013	2014	2015	2016	2017	2018
State revenue total budget	bn. CZK	1000	1013	1051	1092	1134	1235	1282	1274	1401
	Total	100%	100%	100%	100%	100%	100%	100%	100%	100%
Consumption taxes	bn. CZK	127.6	130.1	130.1	127.6	129.2	138.2	145.4	149.4	153.7
	% of total	12.76%	12.84%	12.38%	11.68%	11.39%	11.19%	11.34%	11.73%	10.97%
Personal Income Taxes (rate of 15%)	bn. CZK	131.7	142.8	144.8	149.8	153.8	164.7	183.1	202.2	229.8
	% of total	13.17%	14.10%	13.78%	13.68%	13.56%	13.33%	14.28%	15.87%	16.40%
Corporate Income Taxes (rate of 19%)	bn. CZK	128.2	129.7	135.2	140.4	151.2	165.1	178.7	188.3	184.7
	% of total	12.82%	12.80%	12.86%	12.86%	13.33%	13.34%	13.94%	14.78%	13.18%
PIT + CIT	bn. CZK	259.9	272.5	280	290.2	305	329.8	361,8	390,5	414.5
	% of total	25.99%	26.90%	26.64%	26.56%	26.90%	26.70%	28.22%	30.65%	29.58%
% PIT and CIT would need to increase to keep revenue the same with no excise tax	Only PIT increases	14%	14%	13.5%	13%	13%	13%	12%	11%	11%
	PIT rate after increase	29%	29%	28,5%	28%	28%	28%	27%	26%	26%
	Only CIT increases	19%	19%	18%	17%	16%	16%	15%	15%	16%
	CIT rate after increase	38%	38%	37%	36%3	35%	35%	34%	34%	35%
	Increase of PIT and CIT if excise tax revenue is split evenly (new rate)	PIT+ 7% (22%) CIT+ 9.5% (28.5%)	PIT+ 7% (22%) CIT+ 9.5% (28.5%)	PIT+ 7% (22%) CIT+ 9% (28%)	PIT+ 6% (21%) CIT+ 9% (28%)	PIT+ 6% (21%) CIT+ 8% (27%)	PIT+ 6% (21%) CIT+ 8% (27%)	PIT+ 6% (21%) CIT+ 8% (27%)	PIT+ 5.5% (20.5%) CIT+ 7.5% (26.5%)	PIT+ 5% (20.5%) CIT+ 8% (27%)

Source: MFČR and OECD

In addition to Table 1, Figure 1 shows the stability of excise tax revenues, showing the evolution of excise tax revenues as a percentage of GDP. The figure shows that the domestic excise system generates revenues between 2.9% and 4.5% of GDP throughout the reporting period, averaging at 3.47%. Since joining the EU in 2004, this average

Figure 1: Excise tax revenue in relation to GDP in the Czech Republic



Source: MFČR

Table 2: Excise tax revenue (ETR) in the Czech Republic for 2014 to 2018 (CZK bn /% of total)

ETR in Czech Republic (bn CZK)	2014		2015		2016		2017		2018	
ETR TOTAL	**136.5**	**100%**	**145.7**	**100%**	**153.3**	**100%**	**157.4**	**100%**	**164.9**	**100%**
ETR mineral oils	81.6	59.78%	84.5	58%	88.4	57.66%	91.7	58.26%	93	56.40%
ETR tobacco products and stickers	44.7	32.75%	50.9	34.93%	54.4	35.49%	56.2	35.71%	58.8	35.66%
ETR alcohol and spirits	6.8	4.98%	7.1	4.87%	7.2	4.70%	7.3	4.64%	7.9	4.79%
ETR wine and inter-mediates	0.3	0.22%	0.3	0.21%	0.4	0.26%	0.4	0.25%	0.4	0.24%
ETR beer	4.6	3.37%	4.7	3.23%	4.6	3.00%	4.6	2.92%	4.8	2.91%

Source: Customs Administration, Treasury Monitor

has increased by 3.68%. This phenomenon reinforces the fact that excise taxes consistently add a significant amount to the state budget.

The highest share of income to the state budget through excise taxation is the excise taxation of mineral oils – mainly fuels [See: Table 2]. In 2018, the share of mineral oils amounted to 56.4% of total excise tax revenues. Tobacco products reached 35.66%, alcohol and spirits 4.79%, wine and intermediate products only 0.24%, and beer 2.91% of the total collection of excise duties. In the period between 2014 to 2018, the share of excise duty on tobacco increased slightly, while the share of excise duty on mineral oils slightly decreased.

The importance of excise taxation for the Czech Republic is obvious. The following chapters analyze in detail, individual groups of selected products that are subject to excise taxation.

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THE INTRODUCTION OF EXCISE TAXATION ON SELECTED GOODS ACHIEVES AN INCREASE IN THEIR VALUE PRICES, WHICH USUALLY LEADS TO A REDUCTION IN THEIR CONSUMPTION

ALCOHOL AND SPIRITS

Alcohol is another product that is subject to excise tax in the Czech Republic. There is a special excise duty for beer and wine [See: Table 3]. The basis for calculating the excise duty on alcohol is the amount of pure alcohol expressed in hectoliters multiplied by the rate of CZK 28,500 / hl. As with cigarettes, the tax burden includes VAT, which increases with the price of the spirits. The excise duty per liter of pure alcohol is, therefore, set at CZK 285.

Table 3: Taxation of a 0.5 liter bottle of hard alcohol (40% alk.)

	CZK 70	CZK 90	CZK 180	CZK 400
Excise duty	CZK 57	CZK 57	CZK 57	CZK 57
VAT	CZK 12	CZK 16	CZK 31	CZK 69
Taxation (%)	99%	81%	49%	32%

Source: Own processing

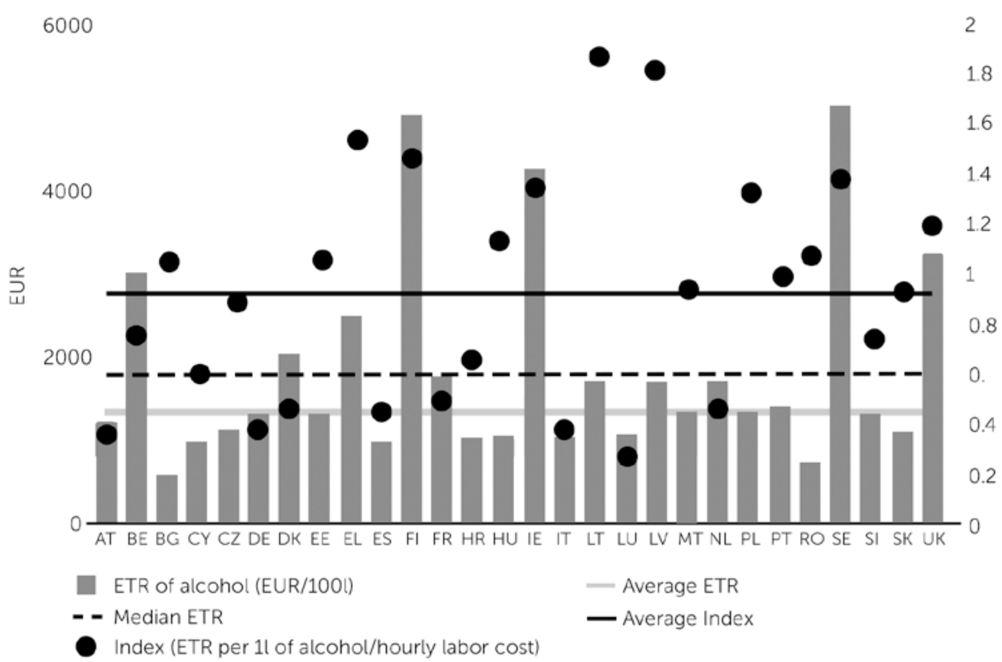
> EXCISE DUTIES RELIABLY FULFILL THE FUNCTION OF INCREASING THE REVENUE OF THE STATE BUDGET

Percentage taxation decreases with increasing alcohol prices. By contrast, the total tax in absolute terms is rising. At a price of CZK 70 per 0.5 liter, a bottle of 40% spirits is almost all its price tax. In this situation, production costs, transportation, margins, etc. are not covered. It is, undoubtedly, interesting that despite this fact, bottles are available at discount prices close to this threshold, sometimes even below it.

Figure 2 shows a comparison of alcohol excise systems in EU countries. The bars show the amount of taxation in EUR / 100 liters. Green dots show the proportion of hourly labor costs (wages + levies) of excise duty on 1 liter of alcohol. They simply present how many hours of work are required to pay excise duty on 1 liter of alcohol. The yellow line represents the average of this index.

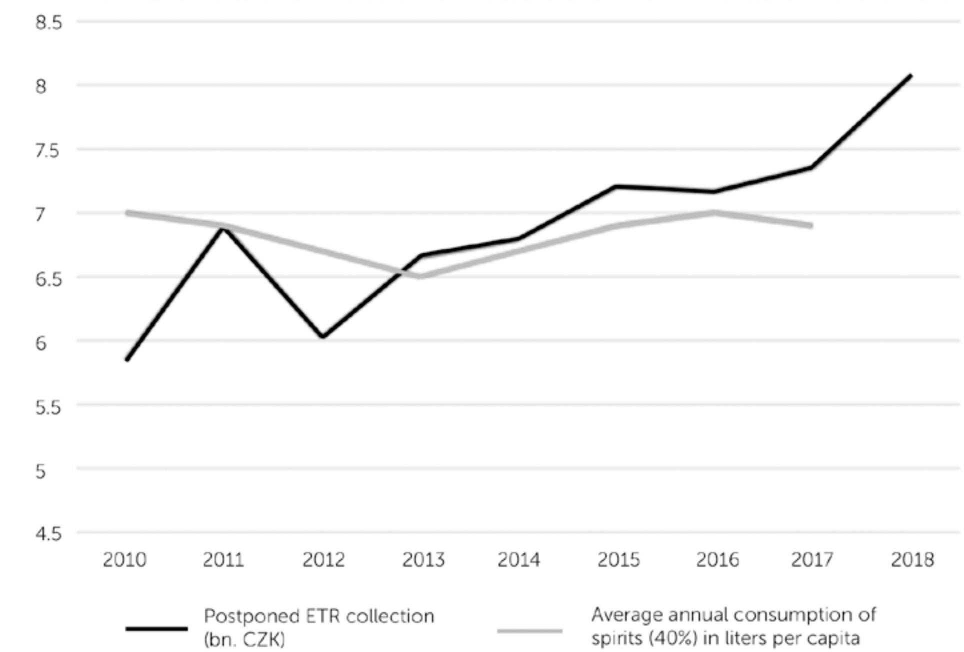
The Czech Republic, with the level of excise duty imposed on alcohol, is below the av-

Figure 2: Comparison of the alcohol excise system in the European Union



Source: Eurostat

Figure 3: Development of the collection of excise duty on spirits and consumption of spirits



Source: Eurostat

> THE HIGHEST SHARE OF INCOME TO THE STATE BUDGET THROUGH EXCISE TAXATION IS THE EXCISE TAXATION OF MINERAL OILS – MAINLY FUELS

erage and median of EU Member States. By contrast, the share of excise duty in wage costs in the country is almost identical to the EU average. Nordic countries traditionally pay the highest excise duty on alcohol. After including the purchasing power of the population over hourly labor costs, the excise taxation in the Czechia reaches almost the EU average. In the Czech Republic, the average cost of 0.88 hours of excise duty per liter of alcohol is equal. In Belgium, the excise tax rate is almost three times that of the Czechia. Due to high wages, however, the index is lower than in the Czech Republic. It takes only 45 mins to pay excise duty on 1 liter of alcohol in Belgium.

Figure 3 shows the development of the consumption of spirits and postponed collection of excise duties from 2010 to 2018. These figures are key. The purpose of excise tax is to regulate consumption and increase revenues to the state budget. The annual consumption of 40% of spirits in the Czech Republic is relatively significant. The value oscillates around the average annual consumption of 7 liters per capita throughout the period under review. The average Czech drinks fourteen bottles (0.5 l) of hard alcohol a year.

The development of postponed direct debit confirms the importance of income from excise duty on alcohol for the state budget. In the last eight years, the income from this tax has increased by CZK 1.2 bn to the final CZK 8 bn in 2018. It represents less than 5% of the state budget revenue from excise taxation.

In addition to excise tax revenues, the social costs of alcohol consumption must also be mentioned. According to a study by iHETA, in cooperation with the Center of Economic and Market Analysis and the Office of the Government of the Czech Republic[1], the costs of alcohol consumption are CZK 56.57 bn (or 1.15% of GDP). The biggest cost, at CZK 24.3 bn, is the cost of lost productivity in the workplace. Health costs of 26 major examined diagnoses related to alcohol consumption amount to CZK 12.9 bn. Moreover, the costs resulting from premature death were estimated at CZK 6.6 bn, those related to criminal activities at CZK 6.3 bn, whereas the costs of traffic accidents at CZK 4.4 bn. The social expenses are not only related to the consumption of spirits, but also wine, beer, and other alcoholic beverages.

The most visible scandal of this decade in relation to the harmfulness of alcohol was the so-called "methanol scandal". In the Czech Republic and Poland, in 2012, there were a series of methanol poisonings, which was contained in alcohol bottles distributed from the gray market zone (tax evasion). Forty-seven Czech citizens died of poisoning and dozens of others were hospitalized. Many victims still suffer from visual impairment.

The regulator responded by introducing a temporary ban on the sale of alcoholic beverages with an alcohol content of over 20%, followed by a series of systematic measures to monitor the production and distribution chain. Control of alcohol production has improved in recent years through mandatory safety measures. These measures include the introduction of new protective bottles for alcohol and the mandatory introduction of a CCTV system at the stamping or bail-in point of manufacturers. This development has significantly reduced the size of alcohol from the black market.

However, a high excise duty on alcohol, of course, creates incentives for many groups and individuals to participate in the black market. The negative result is the necessity of a high investment in the CCTV system, in many cases exceeding CZK 100,000. This investment has become fatal, and led to liquidation of a number of small liquors producers and the market has consolidated due to regulatory measures. Still, the measures have proven to be very effective in relation to the health risks of gray market products. Furthermore, as a result of the Romanian Presidency in the EU, the issue of the exemption for homemade alcohol from excise duty is now open. In the Czech Republic, such alcohol is not for sale, but is for personal use only, and is exempt from excise duty up to 30 liters of pure alcohol per person per year. Romania proposes to increase this limit to 175 liters. Unanimity of all EU states is required for a change in the tax area. From the point of view of maintaining the culture of alcohol burning as a preservation of rural tradition, this is a rational proposal, but not in terms of the purpose of excise taxation.

> THE AVERAGE CZECH DRINKS FOURTEEN BOTTLES (0.5 L) OF HARD ALCOHOL A YEAR

> CONTROL OF ALCOHOL PRODUCTION HAS IMPROVED IN RECENT YEARS THROUGH MANDATORY SAFETY MEASURES

Alcohol consumption entails significant societal costs that dramatically exceed its consumption tax revenues. In terms of harmfulness, the size or location of the distillery does not matter. Similarly to tobacco, it makes no sense in terms of the purpose of excise taxation to grant a tax exemption to the equally harmful alternative, but not to the less harmful options. The fiscal implications of the proposal cannot be overlooked either. The consumption of untaxed alcohol entails the same costs as that of taxed alcohol. However, it does not bring funds to the state budget to mitigate the abovementioned negative impacts of its consumption.

Recommendations for Regulator:

• *Close control of the black market*: Timely capture of shadow market trends (such as continued dialogue with legal producers) will increase the collection of alcohol excise duty, the safety of alcohol consumption, and reduce the negative impact associated with the consumption of substances not subject to quality control.

• *Comprehensive regulation*: The exceptions to their substitutes reduce the effectiveness of any fight against pathological dependence. Examples of hard alcohol are beer and wine. Regulation targeting only a narrow segment of a problem area has very limited efficiency.

• *Consistent prevention*: Prevention of overconsumption is one of the most effective tools to combat addiction, especially among people unaware of the consequences of their actions (persons under 18 years old). Effective programs in this area cannot do without the cooperation of government, manufacturers, retailers, and dependency experts.

BEER

Beer is another product in the Czech Republic that is subject to excise duty. Here, excise duty also fulfills the main two tasks – increasing revenues to the state budget and reducing consumption.

The Czech Republic is the world's leader in per capita beer consumption. The average annual consumption of beer per capita is 147.3 liters. Since 2010, this rate has slightly

[1] iHETA, CETA (2019). *Společenské náklady konzumace alkoholu v České republice*. Available [online]: http://www.iheta.org/ext/publication/files/Report_merged_grant_alkohol_2019-04-10%20-%20final.pdf [in Czech]

> AS A RESULT OF THE ROMANIAN PRESIDENCY IN THE EU, THE ISSUE OF THE EXEMPTION FOR HOMEMADE ALCOHOL FROM EXCISE DUTY IS NOW OPEN

increased. This is mainly due to the fact that beer is historically part of the national gastronomic culture, as in France or Italy with wine. It is not necessarily an indication of massive binge drinking, but this does not reduce the attention to be paid to any undesirable aspects of beer consumption.

The excise tax on beer is determined in CZK / hl for each full weight of the original wort extract. In 2010, the basic rate increased from CZK 24 / hl to CZK 32 / hl, as well as reduced rates [See: Table 4]. The reduced rate is intended for small independent breweries according to their production volume.

From the point of view of the purpose of excise tax, similarly to tobacco and spirits, the tax advantage certainly does not make sense for a group of producers – in this case, microbreweries. Excessive alcohol consumption generates risks irrespective of its origin or size. The tax advantage of small breweries is a good economic step in terms of promoting small businesses and the diversity of typical Czech beer culture.

From the point of view of the purpose of excise duty, this measure cannot be considered appropriate, especially if the tax advantage is indefinite. Moreover, the reduced excise tax rate creates space for opportunistic behavior, where instead of extending the existing prosperity of the small brewery, a new brewery will be established. This leads to shortfalls in excise tax revenues.

Table 4: Consumer taxation of beer in the Czech Republic

	Tax rate in CZK / hl for each weight percentage of the original					
		Reduced rates for small independent breweries by production volume (in hl)				
Year	Basic rate	(...- 10,000>	(10,000-50,000 including>	(50,000-100,000 including>	(100,000-150,000 including>	(150,000-200,000 including>
2009	24	12	14.4	16.8	19.2	21.6
2010–2019	32	16	19.2	22.4	25.6	28.8

Source: Customs,, CZSO

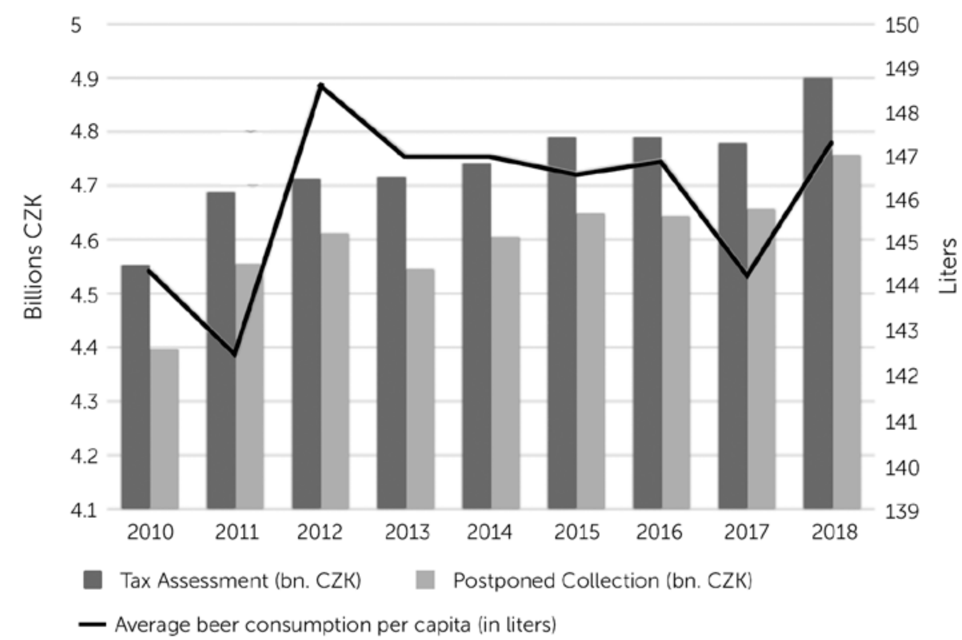
In Figure 4, we can observe the assessed excise tax on beer, its actual collection, and average annual consumption of beer per capita. Between 2010 and 2018, there was a systematic difference between the tax levied and the postponed collection. The amount of tax assessed speaks to the market, and the occurrence of tax liability. Tax collection represents the actual receipt of funds into the state budget. The difference between the assessed tax and direct debit is due to incomplete data and a deficit in the payment discipline of taxpayers.

In the Czech Republic, brewing has flourished in times of economic growth. Total exhibitions in 2018 increased by 4.7% to 21.3 mln hl. Despite the continuing trend of small breweries, enterprises with an exhibition of over 200,000 hl account for more than 90% of the collection of excise duty on beer.

In order to develop the collection of excise duty on beer, it is necessary to monitor trends in consumption behavior. Beer consumption per capita increased year-on-year in 2018 and reached the second highest value in the period under review. Another important trend is the transition to the substitutes of classic beer – especially ciders, flavored beers, and non-alcoholic beers.

The transformation of the market, and the transition to alternatives may have a negative impact on the collection of excise duties. In 2018, non-alcoholic beer consumption increased by 7.3% year-on-year, and so-called "beer mixes" increased by 42.5%. Once again, the proportion of beer consumed in restaurants decreased, as the proportion of total beer consumption dropped by two percentage points, to 36%. This also implies other fiscal impacts

Figure 4: Measured excise tax on beer, postponed collection, and average beer consumption per capita in the Czech Republic



Source: Customs, CZSO

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THE CZECH REPUBLIC IS THE WORLD'S LEADER IN PER CAPITA BEER CONSUMPTION

(limited economic activity, lower employment, lower additive sales in the hospitality industry, etc.). These changes must be reflected when setting the excise tax on beer.

Recommendations for Regulator:

• *Tax advantage for microbreweries*: It is necessary to consider the need for a tax advantage for small breweries that do not make sense from the point of view of the excise duty, especially when it comes to a lasting advantage. The advantage goes against increasing revenues to the state budget and against regulating excessive consumption of the product. For example, small cigarette manufacturers could benefit from the same prism.

• *Effectiveness check*: When excise tax exemptions are granted, close scrutiny is necessary to prevent abuse. Take the situation of setting up several small breweries instead of extending the existing one due to the amount of excise duty.

• *Consumer Behavior Reflection*: The regulator needs to prepare for the consequences of market changes and changes in consumer behavior, mainly due to the increasing popularity of classic beer substitutes (such as beer mixes). Continuation of this trend could have negative consequences on the collection of excise duties.

• *Economic Freedom vs. Economic Freedom over-consumption*: Programs aimed at eliminating negative aspects of alcohol consumption should focus on the area where the vast majority of negative aspects arise – not average consumption in general, but excessive alcohol consumption or consumption of people under 18 years of age.

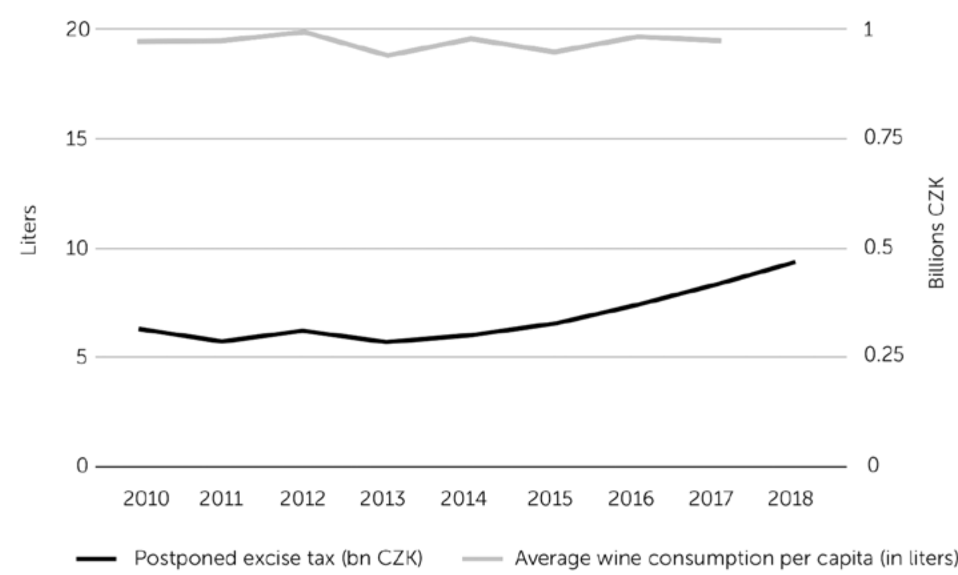
WINE

Wine is another product that is subject to excise duty in the Czech Republic. Wine, intermediate products, and fermented beverages are defined as the object of the tax as containing at least 1.2% to 22% alcohol by volume.

The taxation system in the EU, and thus in the Czech Republic, is significantly influenced by a strong interest group of wine producers. A natural person who produces exclusively still wine in the tax territory of the Czech Republic shall not be subject to the tax on wine and intermediate products, provided that the total quantity of still wine produced per calendar year does not exceed 2,000 liters. However, although the subject is a wine taxpayer, still wine is a formal designation [See: Figure 5]. In addition, excise wines and intermediate products intended for the production of selected ingredients and products such as vinegar, chocolate, and pharmaceuticals are exempt.

The rates in CZK / hl are set for the calculation of the excise tax. For sparkling wines, it is set at CZK 2,340 / hl. The same rate applies to intermediates. For still wines, the excise tax is set (according to EU legislation)

Figure 5: Postponed collection of excise tax on wine and average wine consumption per capita in the Czech Republic



Source: Customs, CZSO

at the lowest possible amount of CZK 0 / hl. EU legislation setting minimum allowable excise rates for any other category does not allow for a zero excise duty (the minimum for beer is EUR 0.748 / hl and alcohol for EUR 550 / hl of pure alcohol).

Figure 5 shows the average wine consumption and collection of excise duty on wines. The collection of excise duty on wine is clearly the lowest of all product groups on which excise duty is levied. In 2018, the share of this product group in the total collection of excise duty was only 0.24%.

The low collection can be partly explained by relatively low wine consumption compared to beer, when the annual wine consumption per capita does not exceed 20 liters. The zero excise duty rate on still wine is a more significant factor. In fact, excise tax revenue on wine is thus drawn only on sparkling wine and on intermediate products.

The vast majority of the market in the Czech Republic belongs to still wines. The total volume of wine and intermediates put into free tax circulation in the Czech Republic in 2018 was 2,360,876 hl. Still wine of this volume accounts for 2,181,281 hl, or 92,39% of the total. Sparkling wines comprise 166,572

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EXCESSIVE ALCOHOL CONSUMPTION GENERATES RISKS IRRESPECTIVE OF ITS ORIGIN OR SIZE

> THE TAXATION SYSTEM IN THE EU, AND THUS IN THE CZECH REPUBLIC, IS SIGNIFICANTLY INFLUENCED BY A STRONG INTEREST GROUP OF WINE PRODUCERS

hl and intermediate products of negligible 13,023 hl. In terms of volume, almost 93% of wine does not contribute to the collection of excise tax in the country. Using the static model, where still wine is subject to excise duty as well as sparkling wine, i.e. at the rate of CZK 2,340 / hl, the potential for state budget revenue can be quantified at CZK 5.1 bn in excise duty.

Figures 6 and 7 illustrate the situation of excise duty on still and sparkling wine in the EU countries. A zero threshold is set for both types of wine in the EU. As can be seen from the figures, the Czech Republic is far from the only country that has set a minimum of CZK 0 / hl for still wines. There are fifteen countries in total. Ireland levies the highest excise duty on still wine above EUR 600 / hl. Relatively high taxation of still wine can also be observed in Finland, Sweden, and the United Kingdom.

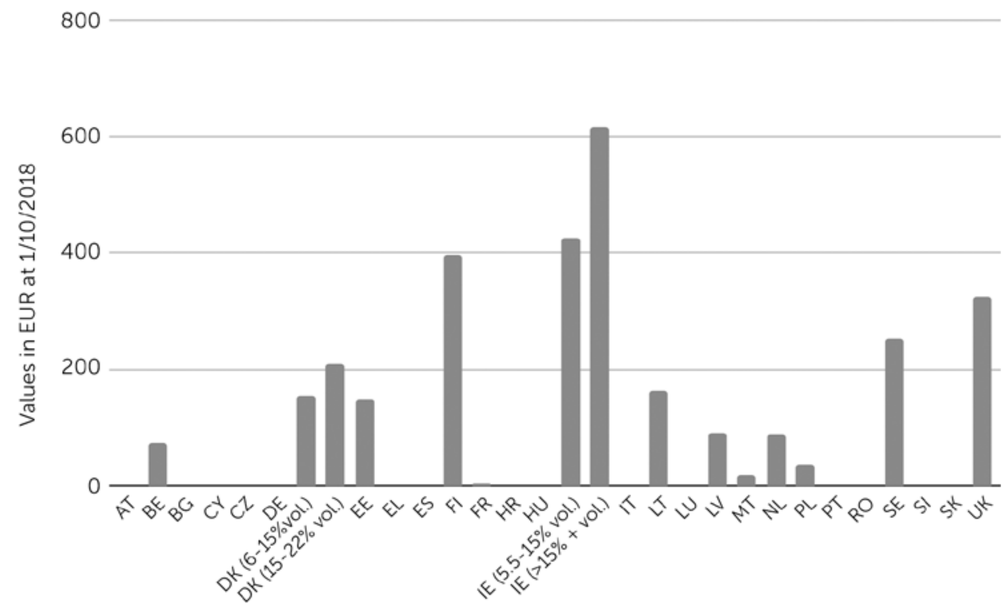
The situation regarding the excise duty on sparkling wine in EU countries can be seen in Figure 7. Nine Member States are still using the zero minimum, including Belgium, Croatia, Portugal, and Italy. There are fewer countries using zero rate for sparkling wine. In addition to the Czech Republic, Slovakia, Romania, Hungary, Germany, and Austria also constitute countries with zero rates for still wines and non-zero rates for sparkling wines.

From the point of view of the purpose of excise taxation, exception, or zero rate, makes no sense. The purpose of the excise tax, as has been already mentioned, is primarily to regulate consumption and increase revenues to the state budget. Zero rate for still wine goes against the whole logic of excise taxation. Fiscal outage due to zero rate on still wine reaches up to CZK 5.1 bn for excise duty alone, i.e. about CZK 0.3 bn more than the total collection of beer excise tax.

Alcohol contained in wine carries the same health risks and causes the same harm to society as alcohol contained in other alcoholic beverages. Moreover, the absence of excise duty causes a situation where wine is the cheapest alcohol after conversion to volume units. Box wines with an alcohol content of 11% and a volume of 1 liter can be purchased for less than CZK 20, except for special offers. Deciliter of pure alcohol in this package costs less than 2 CZK. Some 1-liter bottles containing 37.5% alcohol are also discounted at CZK 160. A deciliter of pure alcohol in this package costs more than CZK 4. Thus, in the cheap brand of spirits, alcohol is twice as expensive as in the cheap brand of wine.

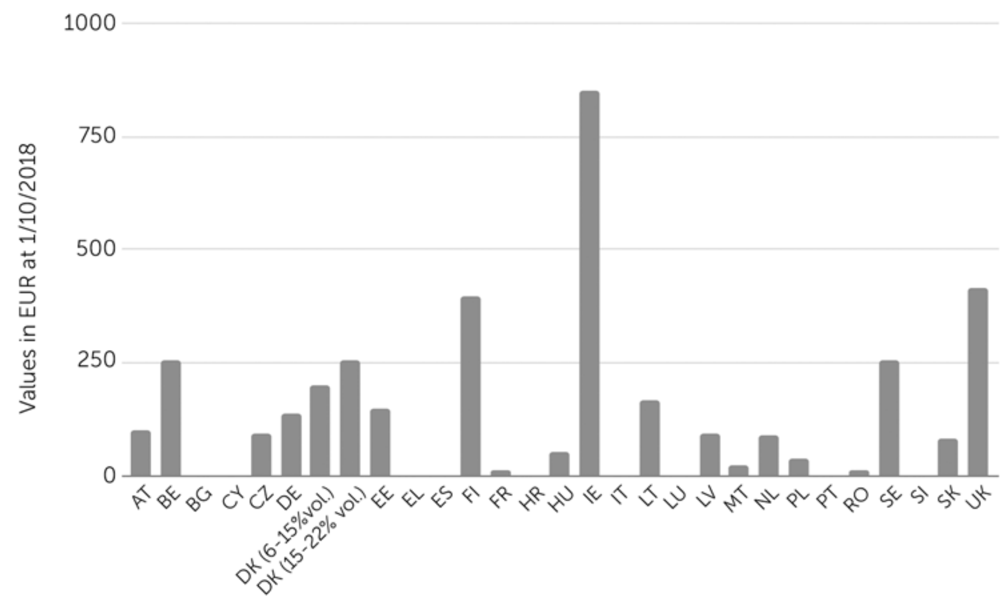
Exceptions to their substitutes reduce the effectiveness of any fight against pathological addictions, not only alcohol dependence. Regulation targeting only a particular

Figure 6: Excise taxation of still wine in EU countries



Source: European Commission

Figure 7: Consumer taxation of sparkling wine in EU countries



Source: European Commission

segment of a problem area has very limited efficiency. The example of zero excise duty for still wines is a textbook example of such a practice. This dramatically increases the difficulty of combating pathological addictions.

Proponents of zero excise duty on still wines correctly point to the excise tax settings of wines in other EU countries [See: Figure 7]. From the point of view of tax competition, however, the reasoning does not make much sense, because the obligation to pay tax arises in the territory of a given country, so that every liter of wine released for tax circulation in the Czech Republic is burdened by the same rate regardless of its origin. It can be assumed that some importers of wines from countries with a zero rate of excise duty could cross-subsidize lower sales prices in the Czech Republic from margins in other countries. However, given the end prices of products, such a situation might already exist today.

It is true that collecting a relatively small amount of taxes from a somewhat large number of entities can be quite administratively demanding. Nevertheless, a system where producers register, but do not actually pay tax, is probably the least effective option in terms of cost to state administration. The market distortion in the current system is indisputable: it is a competitive advantage over wine substitute producers. These are mainly producers of beer and other alcoholic beverages.

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THE PROBLEMATIC NATURE OF EXCISE DUTIES REPRESENTS A VERY IMPORTANT AND MUCH-DISCUSSED ISSUE FOR EVERY DEMOCRATIC COUNTRY. THE CZECH REPUBLIC IS NO DIFFERENT

Recommendations for Regulator:

• *Excise duty on still wine*: The regulator should consider the advantages and disadvantages of a zero burden on excise duty for still wine in the context of potential state budget revenues, as well as the elimination of negative externalities associated with excessive alcohol consumption.

• *Comprehensive fight against addictions*: The non-systematic nature of the zero rate of excise duty on still wine dramatically increases the difficulty of combating all kinds of pathological addictions.

• *Exception for small winemakers*: The exemption for small winemakers can be equaled by the same exception for large winemakers for the first 2,000 liters produced in a calendar year in case the still wine is taxed on excise duty.

CONCLUSIONS

The problematic nature of excise duties represents a very important and much-discussed issue for every democratic country. The Czech Republic is no different.

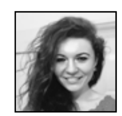
In general, excise duty revenues are considered to be a stable pillow profit for public finances. This is because of the characteristics of the taxed goods. Excise duty represents about one-fifth of all the tax yields of the Czech Republic, and nearly one-tenth of all Czech public budget revenues. If we compare tax liability to GDP, excise duty truly constitutes stable outcomes every year.

In all present-day modern democracies, excise duty is used as a fiscal-political instrument that aims to generate tax yields for the state budget and regulates the overall consumption at the same time. This concept is called “the Ramsey Rule taxation”. It is the difficulty of finding a suitable substitute for the taxed goods that makes excise duty a hallmark of stable state budget revenue.

In the Czech Republic, excise duty focuses on five types of goods: mineral oils (propellant fuels), tobacco, hard alcohol, beer, and wine. It is administrated by the Ministry of Finance (MF) and the Customs Service (CS). This study shows aggregated excise duty yields for hard alcohol, wine, and beer in the Czech Republic and their decomposition on the individual taxed groups of goods.

An excise tax is considered an indirect tax, and its economic effect is twofold: fiscal (taxing yield) and regulative (limitation of consumption of goods or services related to negative impact, e.g. health). Excise duty directly impacts the final price of taxed goods or services; thus, it influences the composition of consumption and disposable household income.

Non-integrated (or different) approaches to taxation of goods that are relatively close substitutes (e.g. alcohol, beer, or wine) can generate unintended, negative impacts on society – either in non-accomplishment of the fiscal potential or in addiction policies. Therefore, when taxing consumption, we must not regard the placing of the system and its functioning separately. In order to accomplish both excise duty goals (fiscal and regulatory), it is necessary to use a more detailed analysis reflecting the market situation and empiricism of the subjects involved, while reacting elastically to changes of relevant factors influencing the excise duties system.



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ŠÁRKA PRÁT

Director of the Institute for Politics and Society. In this position, she is responsible for managing a team and implementing projects to ensure the continued development of the think tank. She holds a PhD, a degree in engineering and an MBA from the University of Economics in Prague. She holds a master degree (MAE) from the Université Jean Moulin Lyon 3

Against the Flow: Can Bulgaria Survive Progressive Counter-Revolution in Labor Taxation?

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LATCHEZAR BOGDANOV

During the late 1990s and most part of the 2000s, Central and Eastern European countries reformed their tax systems with two key characteristics: reducing the relative burden of direct taxes and – probably more distinctly, at least for the rest of the developed economies – introduction of single personal income tax rates. The last decade, however, saw a policy shift in the opposite direction – the so-called "flat tax" was undermined by various adjustments or abolished altogether in the region.

While some observers focus on income tax rates alone, the broad picture necessarily includes all other levies on labor, along with self-employment. As a deeper look reveals, the composition of the tax base, the structure and size of various deductions, allowances, or exemptions, as well as the types of income that are subject to tax or different social security and health contributions play, in fact, an even more important role in determining the actual effective tax burden.

At the same time, Bulgaria stands as an odd case of a country which changed the ruling majorities several times, but maintained its tax structure for labor incomes relatively intact for more than a decade. From the point of view of the discussion on the future tax policies in Bulgaria, the following overview of different recent reforms in other countries and their impact might provide some useful lessons.

> BULGARIA STANDS AS AN ODD CASE OF A COUNTRY WHICH CHANGED THE RULING MAJORITIES SEVERAL TIMES, BUT MAINTAINED ITS TAX STRUCTURE FOR LABOR INCOMES RELATIVELY INTACT FOR MORE THAN A DECADE

HOW THE FLAT TAX WAS INTRODUCED AND PRESERVED SO FAR IN BULGARIA

A brief overview of the history of Bulgarian tax reforms might be helpful. In the late 1990s, Bulgarian businesses and workers faced corporate and personal income tax rates at around 40% each, with the social security contribution rate totaling 37% for the most common types of employment. Since 1999-2000, the policy direction shifted towards a reduction of rates, combined with measures to increase tax base and compliance. The corporate income tax rate was gradually reduced from 32.5% in 2000 to 15% in 2016, and finally – to 10% in 2017, where it has remained since. Social security contributions were reduced by 9 percentage points between 2005 and 2017, and the top marginal income tax rate was reduced from 40% in 2000 to 24% in 2007.

The step to introduce a single-rate personal income tax was the logical next step. It should be noted that it was a part of a wider set of tax changes, which in effect broadened the tax base while reducing rates.

For example, since 2002 Bulgaria has applied a system of minimum social security thresholds differentiated by the type of activity and employment to combat undeclared work[1]. These thresholds were raised on average by almost 90% between 2007 and 2010. The minimum threshold for self-employed was raised by more than 60% in 2010 alone. The income cap for social security was increased by 43% in 2008 – the year of the introduction of the 10% flat rate. The expenditure allowance for the self-employed was reduced from 35% of total income to 25%. The basic income allowance was abolished, which effectively means that the income tax is applied to all income. At the same time, social security tax was reduced by another 2 percentage points. In short, the philosophy was a broad tax base combined with lower tax rates.

Despite the heavy toll that the global economic crises put on the Bulgarian economy, and, particularly, on the labor market, this policy was maintained. In 2010, there was an additional reduction in social security rates by 2 percentage points – however, it was reversed next year by a 1.8 p.p. increase. As the economy entered a sustainable recovery phase and with employment growing since 2013, the measures to broaden the base resumed, though at a lower intensity – between 2013 and 2019, the minimum social security threshold for the self-employed was increased by 33%, whereas the cap for social security income was increased by 50%.

[1] A common practice in the 1990s was to have all workers in a company employed at the minimum wage and pay additional amounts in cash, thus avoiding social security and tax payments. The system of minimum threshold by occupations and economic activity effectively made employers pay social security (all contributions including healthcare) based on an income level pre-determined by the administration, which was typically higher than the minimum wage.

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SINCE 2002 BULGARIA HAS APPLIED A SYSTEM OF MINIMUM SOCIAL SECURITY THRESHOLDS DIFFERENTIATED BY THE TYPE OF ACTIVITY AND EMPLOYMENT TO COMBAT UNDECLARED WORK

At the same time, some new allowances and deductions that decreased the tax base (though applied to income tax only, not to social security levies) were introduced. The interest on residential mortgages for young families (i.e. below 35 years of age of at least one of the spouses) for the purchase of the first home, up to a principal of EUR 51,000, can now be deducted from the gross annual income. This has up until now limited coverage, as Bulgaria has a high home-ownership rate, while mortgage financing stagnated between 2009 and 2017 with total housing credit remaining at below 9% of GDP until 2018.

New child allowances of about EUR 101 per year per child (capped at EUR 303) were introduced, but their size is negligible as they reduce the effective tax burden on the average wage by as much as 1.6% for each child. Deductions for voluntary contributions of up to 10% of gross income to life insurance or pension funds were preserved; however, early disbursements from these funds became taxable, so the opportunity for pass-through schemes was abolished. The allowance for people with disabilities of about EUR 4,000 per year was also maintained. A food voucher deduction of up to EUR 31 per worker per month remained too, although there is a quota for the total amount of deductible vouchers at about EUR 160 million per annum (for 2019).

Recently, pension fund contributions were increased by 2 percentage points, together with a raise in the standard retirement age as part of a set of measures towards long-term financial sustainability of the pay-as-you-go pension system. As the income base for social security for the self-employed was not formally changed, the tax administration has started to put a growing pressure on businesses by applying more stringent definitions.

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BULGARIA HAS A HIGH HOME-OWNERSHIP RATE, WHILE MORTGAGE FINANCING STAGNATED BETWEEN 2009 AND 2017

For example, a small business would typically register as a limited liability company with the owner paying social security on the minimum threshold (minimum wage at present), while the remaining part of the income would be taxed only as corporate profit at 10% – a strict interpretation would treat a large part of the business income as taxable with social security taxes. At the same time, the tax administration started a campaign against the practice of keeping a large part of company income as retained earnings on the books (thus avoiding the 5% dividend tax on distributed profits), which was widely used – especially by small and medium businesses.

Overall, throughout the last decade Bulgaria pursued a policy of keeping both PIT and social security rates unchanged, while gradually introducing measures to increase compliance. In practice, this leads to a broadened tax base, although without any major overhaul of the tax code. At the same time, Bulgaria is a rare case of not having a basic income allowance – which means that all income from zero is taxed at 10%, and having a rather symbolic child allowance. Social security contributions are paid out on at least the minimum monthly income threshold set out for different occupations and economic activities or self-employed, up to a universal cap of monthly income. The self-employed are taxed either with PIT if they act as individuals or sole proprietors; or with the corporate income tax if they are incorporated as a limited liability company. The benefit of such a status is that most are *de facto* paying social security only on the minimum income threshold, though by law all of their so-called "income from labor" should be taxed. Another distinctive feature is that Bulgaria has no reduced VAT rate (except

> THROUGHOUT THE LAST DECADE BULGARIA PURSUED A POLICY OF KEEPING BOTH PIT AND SOCIAL SECURITY RATES UNCHANGED, WHILE GRADUALLY INTRODUCING MEASURES TO INCREASE COMPLIANCE

for tourism) on foods and other basic consumption goods, which almost every other EU country has.

MEANWHILE, ELSEWHERE IN CEE, THE TIDES CHANGED

The decade in the aftermath of the global economic crises shook the public finances of most CEE countries. However, the revenues from taxes on labor seem to have remained rather intact. Nevertheless, governments in the region initiated various changes in the income taxation structure – some motivated by the necessity to increase revenues to balance budgets, others by purely political considerations. Here are some examples of notable changes, which might be considered as indicators of a new trend in the region.

1) In **Hungary**, the uniform single tax rate for individual income was introduced as late as 2013 (unlike most other CEE countries which made this step in the previous decade). The basic income allowance was, in practice, replaced with a progressive child allowance, which reached EUR 26 thousand per year (in 2019) for a couple with three children. The cut in the income tax rate was accompanied by an increase in social security contributions, and, more importantly – the abolishment of the earnings cap.

2) **Romania** already had a 16% flat tax when a significant reform was implemented in 2018. The personal income tax rate was reduced to 10 %. The rate cut was accompanied by an increase in the basic allowance. At the same time, the burden of social security contributions was shifted to the employee, effectively raising the burden, while also removing the earnings cap for most of the contributions. With respect to the tax base, the measures were contradictory – simultaneous decreasing the base for PIT, while broadening the base for social security contributions. It should also be noted that this change occurred shortly after a major cut in the VAT rate from 24% to 20%, and later to 19%, and was paired with a decision to significantly increase public sector salaries.

3) In 2018, **Latvia** opted for a personal income tax rate hike – from 23% to 31.4%. At the same time, the so-called "solidarity tax", which was in effect a tax to replace the social security contributions which were capped after 2014, was reduced. Raising the annual income allowances decreased the tax base. Other measures expanded the tax base – e.g. some social

> BULGARIA IS A RARE CASE OF NOT HAVING A BASIC INCOME ALLOWANCE – WHICH MEANS THAT ALL INCOME FROM ZERO IS TAXED AT 10%

security contributions had to be paid on income from royalties as well.

4) **Lithuania** also introduced a cap on social security income in 2019 (first at EUR 120 average monthly wages for the annual income, to gradually be reduced to EUR 60 average wages by 2021). The rate of social security contributions was reduced, but at the same time a new, higher PIT rate of 27% was introduced for labor income exceeding the SSC cap. Income below this level is taxed at 20% instead of the previous flat rate of 15%. Increasing basic income allowances decreased the PIT base.

5) **Poland** introduced a so-called solidarity levy of 4%, which effectively raised the top marginal personal tax rate to 36%. Solidarity levy also applies to the self-employed, for whom the top marginal personal tax rate was increased from 19% to 23%. The rate, however, applies to income above about EUR 250,000 annually, and a great majority of such income earners are registered as self-employed to benefit from the 19% tax rate. Two ideas were initiated, but did not materialize. As the effective tax burden for the self-employed and persons under labor contracts are quite different, the Polish Ministry of Finance announced a set of measures in a sort of "entrepreneur test". The assumption was that despite the fact that a large part of taxpayers use the self-employed status, they are not, in fact, entrepreneurs engaged in independent business activity, but rather are in a hidden employment relationship. If enforced, such a measure would broaden the base for both PIT and social security contributions. Another proposal with a huge potential impact on the tax burden was the draft law that removed the income cap for social security contributions – the law was, however, deemed unconstitutional. This measure was also a part of a general trend to expand the base.

6) In the **Czech Republic**, the uniform income tax rate of 15% was supplemented with a so-called solidarity charge of 7% for income exceeding the social security earnings cap. At the same time, the cap for health insurance contributions was removed, effectively broadening the tax base.

7) Finally, **Slovakia** introduced a higher marginal rate of 25% for personal income tax, *de facto* abolishing the 19% single rate. A few years later, it also increased significantly the level of the social security contributions cap, and removed the cap for health system contributions altogether.

Such policy moves have one distinctive common feature: an increase in progressivity of the tax burden on labor. The changes either raise the social security payments on higher incomes, or introduce new tax rates for higher incomes; the effect on economic incentives is similar. At the same time, governments are under pressure to preserve or even reduce the tax burden on the middle class or lower-income households, which means further expansions of tax deductions or allowances.

Also, as progressivity grows, the gap between effective tax burden on labor contracts and people with self-employed or small-business status widens. This, in turn, provokes an over-reaction from tax authorities, which challenge favorable regimes designed to promote and encourage start-ups and entrepreneurship due to growing suspicions of abuse. From a political perspective, Bulgarian policy makers are increasingly challenged to "do what all other countries in the region are doing", i.e. raise marginal tax rates and introduce various tax cuts "for the middle class".

THE EFFECTIVE TAX BURDEN: WHO TAXES THE MOST, AND DID ANYTHING CHANGE?

Though the most recent Bulgarian reforms are not yet reflected in the data, a short summary of the macroeconomic outcome of the diverse tax policies will have to include several observations.

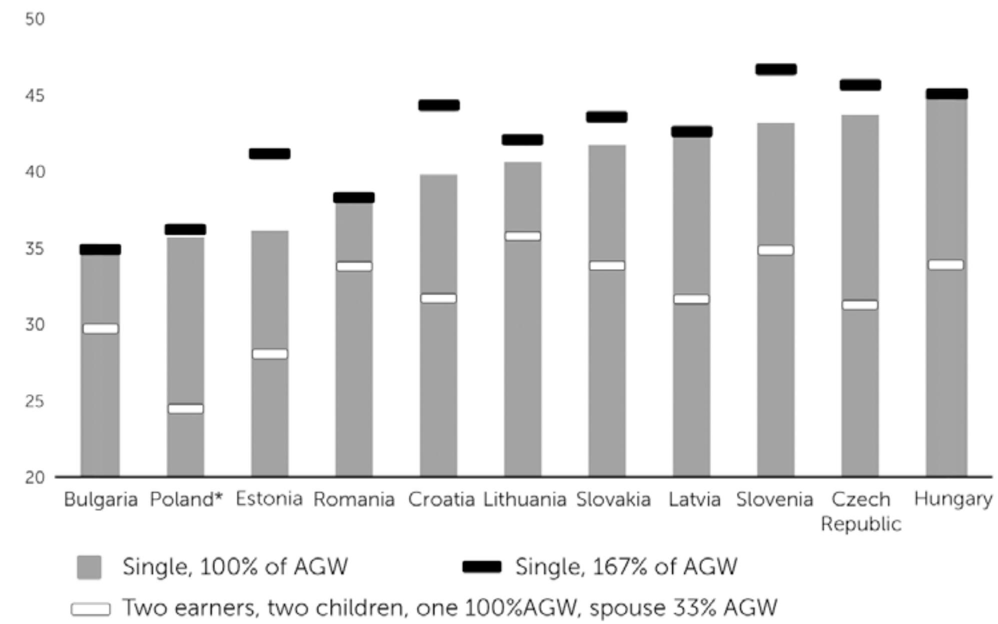
First, the so-called "tax wedge" – the ratio of total labor income taxes paid and the total cost to the employer – varies among CEE countries, but not significantly, despite the different rates in each country. For a single earner of the average wage with no children it varies between 35% (in Bulgaria) and 45% (in Hungary). For a two-earner couple with two children, with one spouse earning the average wage and the other about 1/3 of the average wage, the tax wedge is slightly lower – reflecting the child and family and basic income allowances. The notable changes in this period include a significant decrease in Hungary – where in 2008, the tax wedge was among the highest in the EU – and in Romania. Meanwhile, Slovakia raised the tax wedge on the average worker (single without children).

To impact major allowances and the "progressivity" (though only around the average income levels) of labor taxation can be seen in the difference in the tax wedges specific to a given type of employee. In 2018, the countries that have the "flattest" burden are Bulgaria and Romania, and to some extent, Lithuania.

It is also important that the tax wedge on the typical employee does not necessarily equal the ratio of revenues from the taxes on labor income (PIT plus SSC) to the total amount of compensation of employees in

> THE SO-CALLED "TAX WEDGE" – THE RATIO OF TOTAL LABOR INCOME TAXES PAID AND THE TOTAL COST TO THE EMPLOYER – VARIES AMONG CEE COUNTRIES, BUT NOT SIGNIFICANTLY

Figure 1: Tax wedge in 2018, various types of earners



Source: European Commission, DG Economic and Financial Affairs

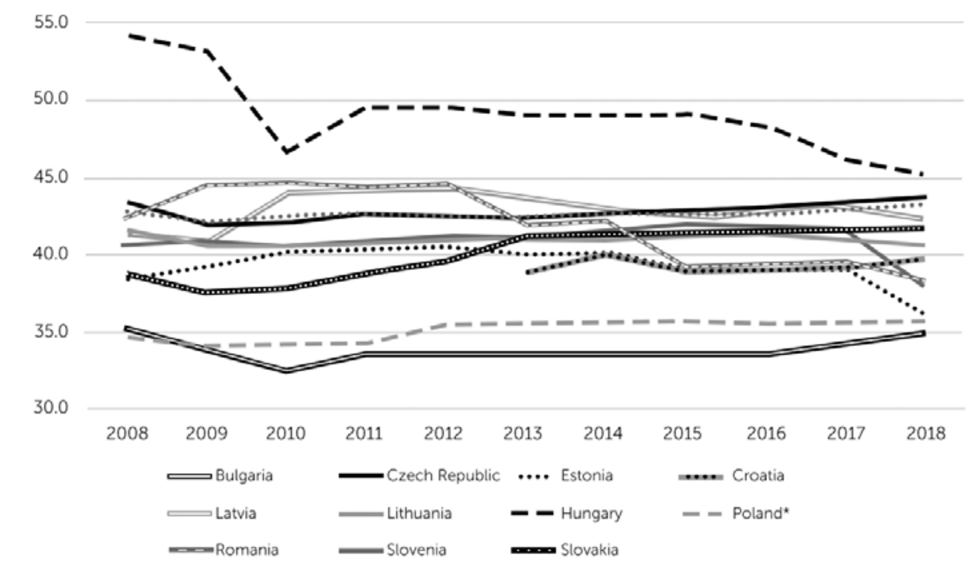
* Data on Poland might be somewhat misleading due to overhaul of the pension system by effective dismantling of the capital pillar.

the economy, or the so-called "implicit tax rate on labor". In all countries but Slovakia, the level of the implicit tax rate on labor is lower than the tax wedge on the single earner with no children. This reflects several factors, including the progressivity of the tax rates, the relative size of tax allowances, and the scope of the tax base. Apart from that, the implicit tax rate can be used as an indirect indicator on the effectiveness of tax authorities to collect revenues and prevent tax evasion.

This being said, it is worth mentioning that across the region the implicit tax rate on labor varied significantly in 2018 – showing a 19 percentage point difference between Bulgaria and Slovakia. In 2008, the difference was 15 p.p. – and the country with the highest ITR on labor was Hungary. This indicator confirms what was previously mentioned – i.e. that an increase of the tax burden in Slovakia and a decrease in Hungary took place.

Second, and more important, the total amount of revenues from labor taxes relative to the size of the economy in each country did not change dramatically throughout the period. The ratio of labor tax revenues to GDP, however, differed significantly between the lowest level of 10.9% (in Bulgaria) and 18.3% (in Slovakia). The latter is the only case of a relatively big increase in tax revenues with 5 percentage points since 2013. It is also notable that Bulgaria, which did not modify any major parameter of the system, and Romania, which reduced significantly the income tax rate, actually managed to increase slightly their revenues.

Figure 2: Tax wedge: single earner with no children, at 100% of average gross wage



Source: European Commission, DG Economic and Financial Affairs

* Data on Poland might be somewhat misleading due to overhaul of the pension system by effective dismantling of the capital pillar.

Table 1: Implicit tax rate on labor and tax wedge

2018	Implicit tax rate on labour	Tax wedge on single earner	Difference in p.p.	Tax wedge on 2-earner	Difference in p.p.
Bulgaria	24.7	34.9	10.2	29.8	5.1
Czechia	40.6	43.8	3.2	31.3	- 9.3
Estonia	33.1	36.2	3.1	28.1	- 5.0
Croatia	30.9	39.8	8.9	31.7	0.8
Latvia	29.4	42.3		31.7	2.3
Lithuania	31.8	40.7	8.8	35.8	3.9
Hungary	38.9	45.0	6.1	33.9	- 5.0
Poland	33.8	35.7	1.9	24.5	- 9.3
Romania	30.7	38.3	6.1	33.8	3.1
Slovenia	36.0	43.2	7.2	34.9	- 1.1
Slovakia	43.8	41.8	- 2.1	33.9	- 10.0

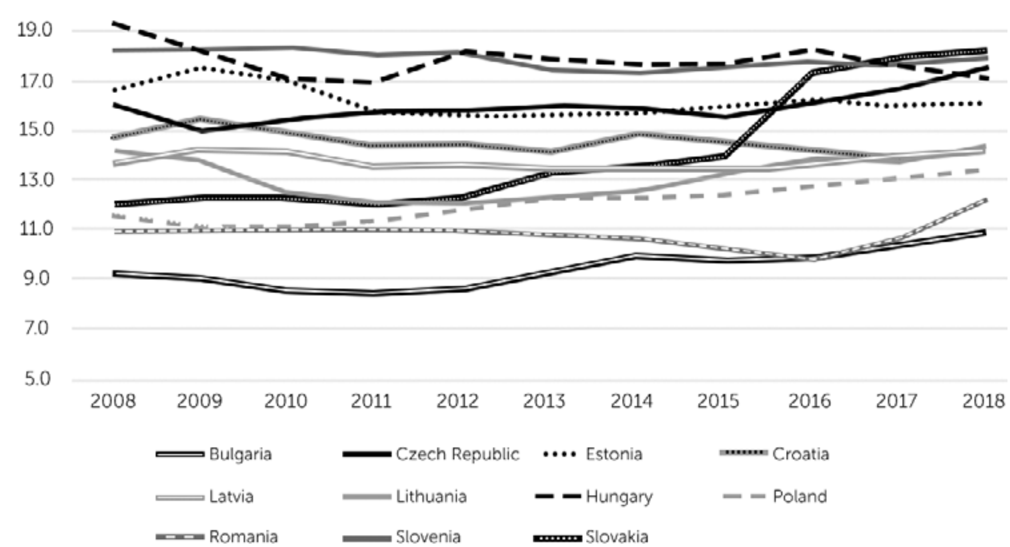
Source: Own calculations based on European Commission, DG Taxation and Customs Union

THE IMPLICIT TAX RATE CAN BE USED AS AN INDIRECT INDICATOR ON THE EFFECTIVENESS OF TAX AUTHORITIES TO COLLECT REVENUES AND PREVENT TAX EVASION

The actual tax revenues from the personal income tax reflect the changes in rates, but the link is not as strong as many might expect, signifying that the scope of the tax base is a key factor. Nevertheless, the historical data mark the major tax rate cuts in Hungary and Romania, though rate increases in other countries seem not to have resulted in big revenue growth.

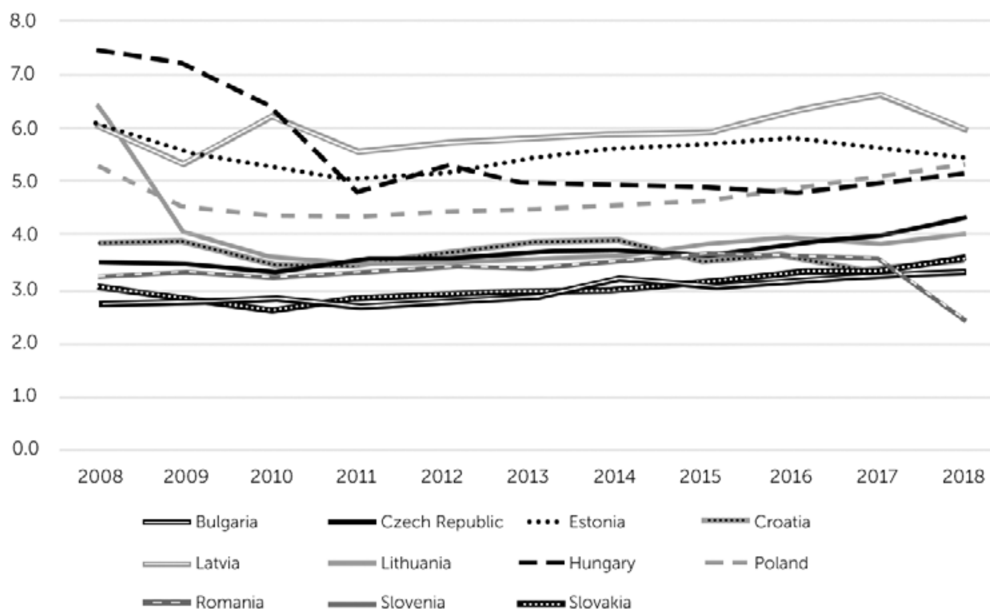
The overall conditions of the labor market, as well as the efficiency of tax administrations to combat shadow the economy, are obviously important too – in Bulgaria, for example, which did not change its PIT rate, the revenues collected increased by almost the same rate as in the Czech Republic, where the rate was increased from 15% to 22%. So, other determinants might be even more significant than merely adding a higher rate (or removing one, for that matter).

Figure 3: Taxes on labor as share of GDP



Source: European Commission, DG Taxation and Customs Union, based on Eurostat data

Figure 4: Revenues from personal income tax as share of GDP



Source: Eurostat

Part of the explanation lies in the structure of the overall taxation of labor – the bigger and growing share of the burden are the social security contributions. In all but two of the countries (Poland and Latvia), the share of the income tax is around or below 1/3 of the total labor income taxation. Moreover, between 2008 and 2018, in all but two of the countries (Czechia and Bulgaria) its share fell, signifying the policy shift to gradually increase the role of social security contributions.

IS HIGHER AND MORE PROGRESSIVE TAXATION THE NEW TREND?

It seems that, with a few notable exceptions, this is the easiest way to describe the series of tax and social security reforms in recent years across the region. Although these changes included a wide variety of measures with a sometimes contradictory effect, they show several common characteristics. Whether it was named "solidarity surcharge" (in Latvia, Poland, or the Czech Republic) or governments directly admitted that they introduced higher tax rates, the effect is the same – higher marginal taxation of income. In most cases it was accompanied by bigger allowances and deductions, which decreased the tax base. It should be noted that governments tried not to increase the level of the tax wedge on the typical (or average) employee.

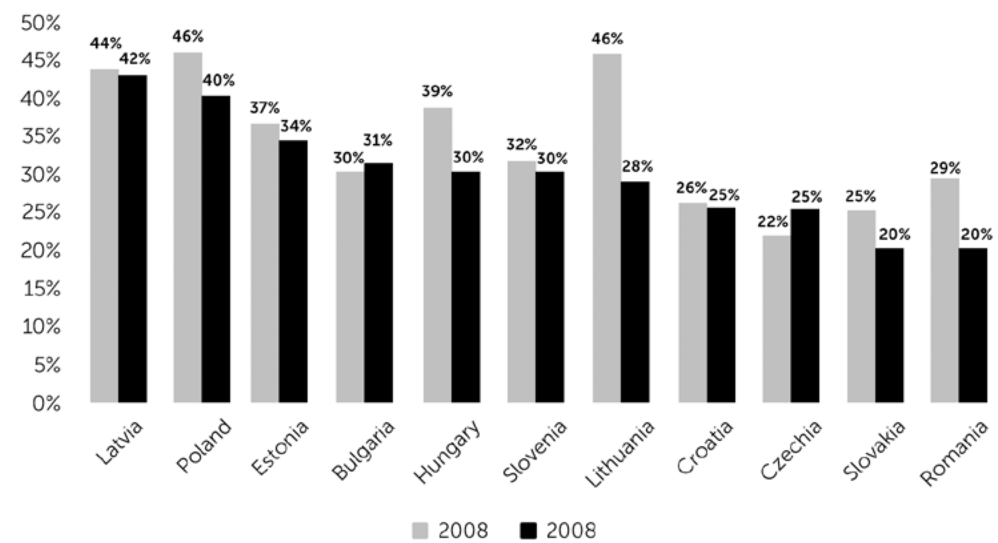
As a rule, the solidarity levy or the additional higher tax rate is applied to income exceeding the earnings cap for social security contributions. The logic behind this approach is relatively self-evident – with income cap, the total labor taxation becomes regressive once the cap is exceeded. As the difference in tax rates is still lower than the total social security contribution rate that it *de facto* replaces, politicians could still claim that the overall effective level of taxation declines above the cap. Nevertheless, this represents an increase in the tax burden for earners with incomes higher than the level of the cap.

Other countries (Hungary and Romania) opted for a different approach – reduce significantly their personal income tax rates, but remove the social security contributions cap. In a way, this approach generates a significant progressivity, as the cuts in income tax rates are significantly lower than the rates for social security contributions that are due on income exceeding the cap. At the same time, both countries increased allowances that further shrank the tax base, especially for lower income earners.

It is probably too early to conclusively assess the budgetary implications of the recent reforms. The data until 2018, however, show that overall revenues from labor taxation did not increase significantly (with the notable exception of Slovakia). In Bulgaria, to the contrary, both personal income tax and

THE SOLIDARITY LEVY OR THE ADDITIONAL HIGHER TAX RATE IS APPLIED TO INCOME EXCEEDING THE EARNINGS CAP FOR SOCIAL SECURITY CONTRIBUTIONS

Figure 5: Share of income tax in total revenues from labor taxes



Source: European Commission, DG Taxation and Customs Union, based on Eurostat data

THE RECENT TAX RATE HIKES, INCLUDING THE REMOVAL OF THE SOCIAL SECURITY INCOME CAP, FURTHER WIDEN THE GAP AND CREATE EVEN BIGGER INCENTIVES FOR ABUSE

social security revenues grew as percentage of GDP, with no changes to taxes, no expansion in scope of the tax base, and no relative increase in the level of the social security cap.

Nevertheless, in all countries, the relative share of the income tax in the overall labor income taxation is gradually declining. With reforms to increase or remove the social security contributions, they become the key determinant of the tax burden.

The different treatment of self-employment (using various legal forms, including incorporation or other forms of company establishment) and standard employment creates a challenge. On the one hand, governments typically want to encourage entrepreneurship and, therefore, create a low-tax environment for small businesses. These include application of low corporate profits tax rate, and in most cases, a comparatively small amount of social security contributions for partners or managers. This creates incentives for arbitrage – i.e. using a small-business status to reduce the tax burden on activities that would otherwise be categorized as labor income. The recent tax rate hikes, including the removal of the social security income cap, further widen the gap and create even bigger incentives for abuse – which, in turn, put pressure on revenue agencies to limit the application of favorable tax treatment for small businesses, or intensify checks and audits.

HOW BULGARIA CAN PRESERVE ITS LOW FLAT TAX: LESSONS TO BE LEARNED

Adding new rates in the PIT structure, a "solidarity levy", or removing or significantly expanding the income for social security contributions – all of these effectively increase the effective tax burden for relatively high incomes. The key political message was that the rich should contribute more, especially in times of hardship – we should not underestimate the impact of the global economic crisis on budget revenues and labor markets in the region.

At the same time, such tax hikes on higher-income earners are a suitable excuse to extend more generous allowances and deductions – to low-income groups or related to family and children. A combination of this kind preserves, or even reduces the tax wedge on the "average employee", which, in turn, is crucial for maintaining competitiveness, attracting foreign investment, and creating most types of jobs.

For Bulgaria, the overall trend in the region poses a serious challenge: It is difficult to defend a low-rate, flat income tax with no basic income allowance while the rest of the converging CEE countries choose opposite policies. The case for abandoning the current structure has been driven in recent years by three ideological arguments: the "rich" should pay more (in general), the lack of basic allowance creates inequality and increases poverty, and finally, the size of the government should grow to finance higher health and pension expenditures. Based on the overview of recent tax reforms in other countries and on specific conditions related to the structure of Bulgarian public finances, and the economy as a whole, let us consider the case for preserving the flat tax.

THE KEY POLITICAL MESSAGE WAS THAT THE RICH SHOULD CONTRIBUTE MORE, ESPECIALLY IN TIMES OF HARDSHIP

As a catching-up economy starting from a low level of income (even by CEE comparison), Bulgaria needs to attract capital and foster job creation. This means keeping relatively low taxes on labor and capital, while relying to a greater extent on consumption taxes. Also, because of the low nominal income levels, the minimum rates for excise duties established within the EU are in relative terms considerably higher than in most other countries. Bulgaria is also a rare case for not having a reduced VAT rate for food and essentials – which is, from an economic growth perspective, considered a better source of revenue than taxing labor. The tax base for VAT is also quite broad, as the threshold for compulsory registration is around EUR 25,000 of annual turnover.

Comparing marginal income tax rates and actual income tax collections, it seems that doubling or even tripling the rate in Bulgaria, if accompanied with the introduction of some allowances, would probably generate 1 to 3 percentage points of GDP in higher revenues. The trade-off is obvious – to keep the low tax rate the government must keep the tax base as broad as possible. And vice-versa – an introduction, for example, of a basic allowance equal to the minimum wage would require doubling the rate (or introduce a quite steep progression) to keep the total revenues unchanged.

Nevertheless, the concern that the current system is somewhat regressive – i.e. the high-income earners pay a lower overall contribution – should be addressed. This would probably require a predictable formula for gradually increasing the social security earnings cap – at present, it is set arbitrarily in the annual state budget act. Such a measure can create credibility that

THE BULGARIAN GOVERNMENT SHOULD UNDERTAKE DEEP REFORMS OF THE SOCIAL PROTECTION SYSTEM the cap is not artificially limited, so that particular groups of taxpayers can benefit.

At the same time, there are certain types of income that are not subject to social security and health contributions, or the legal framework is ambiguous, so that the tax administration is unable to collect. This problem has some absurd proportions as, for example, there are several thousand people who have no mandatory health insurance, while at the same time receiving sizable rental incomes. Another set of measures should address the obvious loophole that allows *de facto* self-employed taxpayers to pay social security and health based on extremely low income (i.e. the minimum wage), even if they generate significantly higher incomes from provision of their services.

To relieve the burden of expectations that the tax structure can solve inequalities, poverty, and social exclusion by itself, the Bulgarian government should undertake deep reforms of the social protection system. These should include both targeting social transfers better, as well as more adequate social services to facilitate social inclusion and enable exiting the poverty trap. Without them, the political pressure to "do something" about the poor – by narrowing the tax base, introducing various exemptions and allowances, etc. – will not disappear.

Finally, a focus on combating tax evasion and closing loopholes that allow avoidance must be a key priority for both legislators and the revenue agency[2]. Several recent initiatives proved that, with the help of modern risk evaluation and other monitoring technologies, tax administration could significantly increase collection. In line with the discussion above, implementing the law broadens the tax base – increasing public revenues without the pressure to raise tax rates for law-abiding taxpayers.

[2] The National Revenue Agency of Bulgaria already launched several campaigns to "whiten" certain business practices. These include, most notably, the pressure to make companies formally distribute profits and pay a 5% dividend tax (instead of simply drawing the cash, but formally retaining earnings), focusing the restaurants and bars which had the practice of significantly under-reporting revenues and salaries of personnel, auditing online shops which used to sell goods without invoicing and paying VAT and CIT in case of cash payments upon delivery, etc.

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A FOCUS ON COMBATING TAX EVASION AND CLOSING LOOPHOLES THAT ALLOW AVOIDANCE MUST BE A KEY PRIORITY FOR BOTH LEGISLATORS AND THE REVENUE AGENCY

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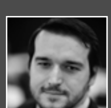
LATCHEZAR BOGDANOV

Chief Economist at Institute for Market Economics in Sofia, Bulgaria. In 2003, he became co-founder of Industry Watch, a private research company that became a key stakeholder in public debate on economic policy in Bulgaria. A founding member of the Bulgarian Macroeconomic Association and a member of the jury of Forbes Business Awards – Bulgaria

Tax Labor and Labor Will Leave: The Bosnian Example



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ADMIR ČAVALIĆ

The fiscal burden of labor in the Federation of Bosnia and Herzegovina is one of the largest in Europe. Although living among the poorest countries on the continent, workers in Bosnia and Herzegovina pay a lot to a high tax wedge, which is over 40%. In particular, at EUR 100 net salary, the employer gives EUR 73 to the government (at the expense of contributions and income tax).

Although in the last five years there was an attempt to reform the fiscal system under the guidance of international partners, the reforms have failed. The consequences of having the largest fiscal burden on labor are numerous, but the most significant are: a high unemployment rate of over 18%, a gray economy comprising 25% of GDP, and, finally, the departure of over 200,000 workers from Bosnia and Herzegovina in the last 10 years.

If you tax labor, then labor (like capital) will leave as soon as the first opportunity is created. This is what has been happening since 2010, when a visa-free regime was established with most EU countries.

In general, high taxes on labor, in the long run, are forcing labor outside the country, which puts pressure on large social systems (such as pensions and health), which, again, creates the need to maintain high labor taxes or, *ceteris paribus*, introduce new taxes. Reforms are painful but necessary, and the reform of the tax system must be carefully and smartly managed.

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REFORMS ARE PAINFUL BUT NECESSARY, AND THE REFORM OF THE TAX SYSTEM MUST BE CAREFULLY AND SMARTLY MANAGED

FISCAL FRANKENSTEIN

The tax system is a sub-system of the economic system that covers all taxes, contributions, and similar instruments that provide public revenue to cover public expenditures. Bosnia and Herzegovina has a very specific tax system, whose organization was inherently a political issue, as is often the case with other countries, and is not rooted merely in financial reasons[1].

It is a system that results from the legal and fiscal legacy of almost 50 years of communism within the former Yugoslavia, obligations made from that period, but also the wartime events of the 1990s, as well as the specific constitutional order stemming from international efforts to stabilize the political and economic situation in the country – the Dayton Peace Agreement. All of this has led to the development of a complicated tax framework, which, according to all relevant global reports – such as the World Bank's *Ease Of Doing Business Index*, the *Index of Economic Freedom* by the Heritage Foundation and the Wall Street Journal, the *Economic Freedom of the World* by Fraser Institute, as well as the *Global Competitiveness Report* by World Economic Forum – is one of the biggest obstacles for

[1] Jusufbašić, E. (2011) *Organization of Fiscal Policy at the Level of Bosnia and Herzegovina*, Fondacija Centar za javno pravo – Analize.

developing the domestic economy. This is why the tax system was in the focus of one of the largest post-war economic reform packages, called the Reform Agenda for Bosnia and Herzegovina (now in the form of a new socio-economic reforms package). There are numerous consequences of such a tax system. First of all, it is necessary to clarify the characteristics of the tax system of Bosnia and Herzegovina, in a simple and precise manner.

OWN IT AND SPEND IT

At first glance, the local tax system in Bosnia and Herzegovina is a paradise – a unique VAT rate of 17%. This implies that the VAT rate, like the one in Kosovo, is not differentiated, which is economically speaking, very effective. Namely, the system is simple; there are no possibilities for fiscal manipulation.

In addition, a uniform rate implies that the same rules apply to everyone, no matter what you produce and what services you offer. Why Bosnia and Herzegovina, apart from Kosovo and Denmark, is the only one in Europe with a unique VAT rate, can be explained by greater international intervention and the presence of international lobbyists and economic experts when certain laws were created. The greatest merit to such a VAT system is due to the actions of Lord Paddy Ashdown[2], the former leader of Liberal Democrats in the United Kingdom, who held the role of High Representative for Bosnia and Herzegovina from 2002 to 2006. The result of these reforms is that the VAT system is currently the healthiest tissue of the entire tax system and the "golden goose" for budgets at all levels. This kind of VAT is in line with the recommendations featured in *Tax by Design*, the latest report prepared by the renowned *Mirrlees Review* – the Bosnian VAT has one single rate, is a well-established system, and offers tax neutrality[3].

> BOSNIA AND HERZEGOVINA HAS A VERY SPECIFIC TAX SYSTEM, WHOSE ORGANIZATION WAS INHERENTLY A POLITICAL ISSUE, AS IS OFTEN THE CASE WITH OTHER COUNTRIES

Corporate income tax is another important part of the tax system of Bosnia and Herzegovina. Registered companies pay a 10% tax on all profits, which makes the country extremely competitive with Europe, where the average corporate income tax rate is about 30%. The tax base includes profit, income, and capital gain, in accordance with accounting regulations. This is an entity, not a state tax, which, again, like VAT, has a flat rate, with no difference between two entities that comprise the country.

There is no progressive taxation, although there are initiatives to do this with an income tax, which is also 10%. However, this has not been done yet, and in any case, corporate taxation would remain the same. Although government officials commonly cite this rate as a valid reason for foreign direct investment in Bosnia and Herzegovina, it does not happen and there are a number of arguments for this. Let us mention only the main ones: unfavorable and uncertain business, legal, and political environment, according to all economic indicators. One of the interesting reasons is the regional fiscal competition – with Montenegro having a corporate income tax of 9%. Why is it exactly 9%? Well, because it is 10% in Bosnia and Herzegovina.

> THE GREATEST MERIT TO SUCH A VAT SYSTEM IS DUE TO THE ACTIONS OF LORD PADDY ASHDOWN, THE FORMER LEADER OF LIBERAL DEMOCRATS IN THE UNITED KINGDOM

What is interesting is that real estate taxes are almost non-existent. In the Federation of Bosnia and Herzegovina, the Real Estate Transfer Tax (RETT) is regulated at the cantonal level and is applicable to transfers of property (land and buildings) with or without compensation. The taxpayer is either the buyer or seller of the property (this varies across the cantons). The taxable base is the agreed price, if not lower, than the market price.

Tax rates are from 5% to 8% (which varies across cantons; for example, the tax rate is set at 5% in the Sarajevo Canton). In the Republic of Srpska (RS) there is no RETT, but RS has a Real Estate Tax (RET), whereby RET is generally payable in respect of real estate used for commercial purposes. RET is in the range of 0.05 to 0.5% of the estimated real estate value in question. It is within the local government's jurisdiction to determine the specific tax rate that has fallen within the aforementioned range[4]. So, as such, real estate taxes are often negligible, non-existent, and do not interfere with conducting business.

There are several reasons why this tax is low and why it will remain so. The biggest is that over two million people were expelled temporarily, or permanently displaced during the war in Bosnia and Herzegovin[5]a. A significant portion of these people did not return to their own land, nor was their legal status resolved. Annex VII to the constitution of Bosnia and Herzegovina

[2] N1 Sarajevo (2019) *Head of Bosnia's Islamic Community: We Owe a Lot to Late Lord Paddy Ashdown*. Available [online]: ba.n1info.com/English/NEWS/a377276/Head-of-Bosnia-s-Islamic-Community-We-owe-a-lot-to-late-Lord-Paddy-Ashdown.html

[3] Mirrlees J. et al. (2011) *Tax by Design*. Oxford University Press. Available [online]: https://www.ifs.org.uk/publications/5353

[4] KPMG (2019) *Bosnia and Herzegovina – Other Taxes and Levies*. Available [online]: https://home.kpmg/xx/en/home/insights/2015/07/bosnia-and-herzegovina-taxes-and-levies.html

[5] Ministarstvo za ljudska prava i izbjeglice (2019) *Najčešća pitanja i odgovori*. Available [online]: www.mhrr.gov.ba/ministarstvo/default.aspx?id=8687&langTag=bs-BA [in Bosnian]

> THE VAT SYSTEM IS CURRENTLY THE HEALTHIEST TISSUE OF THE ENTIRE TAX SYSTEM AND THE "GOLDEN GOOSE" FOR BUDGETS AT ALL LEVELS

took particular account of this[6]. Therefore, it would be very controversial to introduce a real estate tax given that many citizens do not use their property.

The second, and more practical reason is the lack of legal and property relations in the society, the cadastres are not settled, and there are many illegally constructed facilities that are the result of internal migration. The effect of a really low real estate tax is that the real estate market is dead. Citizens of Bosnia and Herzegovina tend to own their homes, which implies a malfunctioning market mechanism – small price fluctuations, property overestimation, small number of transactions, and the like. Some of the dynamism was brought by Arab real estate investments, especially in the Sarajevo Canton. Recent data shows that the 160 companies owned by Arabs account for about 15.3 million of square meters of land[7].

If we look at the three bases for taxation – consumption, capital, and property – then the tax system of Bosnia and Herzegovina is a paradise on Earth for both domestic and foreign companies. But there is a catch. We have forgotten the fourth base of every tax system, which is labor.

DON'T WORK

Bosnia and Herzegovina, in addition to relatively modest rates of consumption taxes (VAT, plus other indirect taxes – such as excise duties on fuel, cigarettes, etc.), place the greatest fiscal burden on labor. These taxes consist of social contributions and the aforementioned income tax. The contributions relate to pension and disability social insurance, health and unemployment insurance. There is also a child protection contribution in the RS entity. These contributions differ, depending on the administrative structure of Bosnia and Herzegovina – two entities (Federation of Bosnia and Herzegovina and Republic of Srpska, and Brčko District as a third separate administrative unit). In the Federation of Bosnia and Herzegovina, the following types and rates of contribution on gross wage (41.5% in total) apply[8]:

- Contribution for pension and disability insurance at the expense of the insured – 17%;

[6] Klix (2018) *U BiH blizu 98 hiljada interno raseljenih osoba, RS ukida Ministarstvo za izbjeglice.* Available [online]: https://www.klix.ba/vijesti/bih/u-bih-blizu-98-hiljada-interno-raseljenih-osoba-rs-ukida-ministarstvo-za-izbjeglice/181127008 [in Bosnian]

[7] Večernji list (2019) *Arapi na području Sarajeva kupili 15 milijuna četvornih metara zemljišta.* Available [online]: https://www.vecernji.ba/vijesti/arapi-na-podrucju-sarajeva-kupili-15-milijuna-cetvornih-metara-zemljista-1377781 [in Bosnian]

[8] Chronos (2019) *Pregled poreznog sistema u BiH*. Available [online]: https://chronos.ba/pregled-poreznog-sistema-bih/ [in Bosnian]

> REAL ESTATE TAXES ARE ALMOST NON-EXISTENT

- Employer pension and disability insurance contribution – 6%;
- Contribution to health insurance at the expense of the insured – 12.5%;
- Employer Health Insurance Contribution – 4%;
- Unemployment insurance contribution at the expense of the insured – 1.5%;
- Employer Unemployment Insurance Contribution – 0.5%.

In RS, the following types and rates of contribution (cumulative 33%) apply:

- Pension and disability insurance contribution – 18%;
- Health Insurance Contribution – 12.5%;
- Unemployment insurance contribution – 1%;
- Childcare contribution – 1.5%.

In Brčko District, the following types and rates of contribution apply:

- Contribution for pension and disability insurance – the employee decides in which fund the contribution of PIO is paid and the rate is applied (24% in Federation or 18% in RS);
- Health Insurance Contribution – 12%;
- Unemployment insurance contribution – 1.5%.

Working in the Federation of Bosnia and Herzegovina, thanks to tax policy, is an economically unreasonable thing to do. On the net salary, the employer is obliged to pay about 72% of the amount in the name of the employee for taxes and contributions. The Federation has the highest cumulative contribution rate in the region, amounting to as much as 41.5% of gross salary, while in the Republika Srpska the cumulative contribution rate is only 33%. In Montenegro, this rate is 32.5%, in Serbia 37.8%, and in Croatia 37.2%[9].

When it comes to the overall fiscal burden on labor, two factors determine it – high social contribution rates plus income taxes. These two create the tax wedge as a difference between the cost of labor and what the worker receives on hand, expressed as a share of the total cost of labor[10]. The current tax wedge on salaries in the Federation, for a worker who receives an average gross wage is 41.9% without tax-free benefits. Considering that the majority of the population of Bosnia and Herzegovina lives in the Federation of Bosnia and Herzegovina, around 63%[11], and even more work there because of larger development, then it is clear that a significant proportion of workers pay one of the highest contributions not only in the region, but in Europe and the world[12]. This discourages workers from getting employed, and employers from employing.

[9] CPU (2019) *Zašto nam je neophodno manje oporezivanje rada*. Available [online]: www.cpu.org.ba/blog-bih/post/2019/zasto-nam-je-neophodno-manje-oporezivanje-rada/ [in Bosnian]

[10] CPU (2019) *Klik se klinom izbija: šta donosi novi prijedlog oporezivanja rada u FbiH.* Available [online]: www.cpu.org.ba/blog-bih/post/2019/klin-se-klinom-izbija-sta-donosi-novi-prijedlog-oporezivanja-rada-u-fbih/ [in Bosnian]

[11] Tportal (2016) *Konačno se zna koliko u BiH ima Bošnjaka, Srba i Hrvata.* Available [online]: https://www.tportal.hr/vijesti/clanak/konacno-se-zna-koliko-u-bih-ima-bosnjaka-srba-i-hrvata-20160630 [in Bosnian]

[12] Dnevni list (2019) *Imamo najveće stope doprinosa u Europi a njihovo smanjenje dovelo bi do rasta plaća i investicija.* Available (online). https://www.dnevni-list.ba/imamo-najvece-stope-doprinosa-u-europi-a-njihovo-smanjenje-dovelo-bi-do-rasta-placa-i-investicija/ [in Bosnian]

REAL ESTATE TAXES ARE OFTEN NEGLIGIBLE, NON-EXISTENT, AND DO NOT INTERFERE WITH CONDUCTING BUSINESS

What is also important to the state is that the outcomes of these contributions are very uncertain and inefficient. Namely, through the contribution system the employee mostly finances pension insurance and health insurance. The state of these two large social systems is catastrophic, so the minimum paid pension in the Federation is EUR 190, while in the Republika Srpska it is even lower – EUR 103[13]. Because of financial difficulties, both of pension schemes have switched to the treasury business mode, i.e. budget (although, in theory, they should have remained standalone, earmarked funds).

The second major contributory social system is health care. Here, there are also a number of structural problems – large queues, inadequate health care service, lack of medical supplies, but also an in-depth debt of these funds to different parties.

[13] BN (2020) *Za 170 KM manja najniža penzija u RS nego u FbiH*. Available [online]: https://www.rtvbn.com/3976648/za-170-km-manja-najniza-penzija-u-rs-nego-u-fbih [in Bosnian]

Taxation of labor, as opposed to the VAT system, is very selective and, therefore, unsuccessful. Thus, the largest debtors in terms of these taxes are protected public companies such as railways, Sarajevo public carrier – GRAS, coal mines, and the like[14]. Workers have not been paid contributions in these companies for years, which has created not only a number of problems for the social systems themselves, but also for tax administrations, politicians, and ultimately for the workers, who are to become pensioners someday.

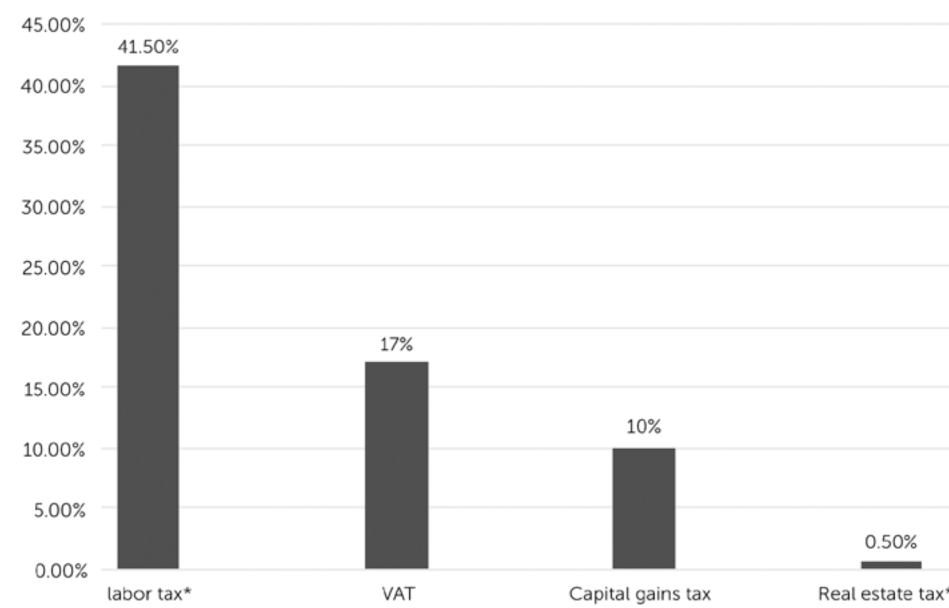
SUMMA SUMMARUM

In this light, and understanding that every tax system in the world exists on several pillars, it can be concluded that in Bosnia and Herzegovina the fiscal system places the greatest burden on labor, followed by consumption, and then finally capital and, in minimal amounts, real estate. If we were to simplify this, and only compare rates, then Figure 1 shows the main characteristic of the tax system of Bosnia and Herzegovina.

This figure simplifies the entire tax system, as it excludes other consumption taxes – such as excise taxes, as well as hundreds of para-fiscal levies that are present across the country. Also, labor tax rate is used for the Federation, where the majority of the population lives. Whereas for real estate taxes, the rate in the Republic of Srpska is used, primarily because the federal rate is absolutely negligible and determined by the cantons. However, based on this simple illustration, it can be concluded that the fiscal system stimulates consumption, capital investment, and real estate ownership, while, on the other hand, it discourages labor. The consequences of all this are catastrophic.

[14] Porezna uprava Federacije BiH (2016) *Nismo svi jednaki pred zakonom*. Available [online]: www.pufbih.ba/v1/novosti/774/nismo-svi-jednaki-pred-zakonom[in Bosnian]

Figure 1: Tax system of Bosnia and Herzegovina



Source: Own elaboration

WORKING IN THE FEDERATION OF BOSNIA AND HERZEGOVINA, THANKS TO TAX POLICY, IS AN ECONOMICALLY UNREASONABLE THING TO DO

CONSEQUENCES

The first obvious result of such a system is unemployment. Officially, the unemployment rate in Bosnia and Herzegovina, according to the Labor Force Survey for 2019, was 15.7%, but the *de facto* registered unemployment rate for the same period was 32.6%. This is an extremely high unemployment rate compared to the countries in the region (Croatia, Serbia, Slovenia, Northern Macedonia, Montenegro), and especially other European countries.

As a result, employers do not have the incentive to hire workers due to high labor contributions, while workers remain passive job seekers in the labor market for a long time because they do not have the incentive to work for low wages (the minimum wage is about EUR 200, while the average wage is about EUR 450 per month) in formal economy.

> A SIGNIFICANT PROPORTION OF WORKERS PAY ONE OF THE HIGHEST CONTRIBUTIONS NOT ONLY IN THE REGION, BUT IN EUROPE AND THE WORLD

In order to avoid paying high levies to the state, employers and workers often look for "more creative" solutions in the gray economy zone, which can be seen from the data. Noteworthy, almost one-fourth of the economy exists within the gray economy[15]. All of the above applies mostly to micro employers who employ up to 9 workers – there are about 74.6% of these in the economy[16]. Such employers usually do not have enough turnover to pay all workers, fulfill their obligations, and ultimately provide entrepreneurial profit. In particular, it is known that labor inspections generally place the greatest focus on micro-employers, seeking to compensate the debt made by large state-owned enterprises.

Low wages are certainly a significant effect of this kind of tax system. Lower net wages mean a lower purchasing power of citizens, which is reflected in quality of life, level of consumption, and ultimately in economic growth. Lower wages also mean that workers are not motivated to work, especially certain low-paying jobs.

Another problem in this regard is that there is a huge gap between the public and private sector wages, as recently noted in a comprehensive report by the representatives of the International Monetary Fund (IMF) in Bosnia and Herzegovina. As the private sector is not able to pay high wages due to high contributions, most talent still goes to the public sector, where wages and working conditions are significantly better. Public companies are, as several times stated in the article, exceptional debtors and burdens on social systems. The reason for this is that they have political protection and rationally expect the government as a last resort in terms of support (as debt write-off or subsidies).

Also, a significant level of tax evasion is due to, among other things, the tendency of the private sector to maintain competitiveness, but also for workers to bring as much money as possible to their families in such a tax system. There are numerous cases of undeclared work and registering workers for a minimum wage, with the payment of an additional amount "on-hand", usually through corporate profits, which are significantly less taxed, and part-time employee engagement for many years (part-time contracts)[17].

[15] Aljazeera (2018) *Siva ekonomija je zamka iz koje je teško izaći.* Available [online]: balkans.aljazeera.net/vijesti/siva-ekonomija-je-zamka-iz-koje-je-tesko-izaci [in Bosnian]

[16] Capital (2019) *U BiH najviše registrovanih mikro preduzeća, najmanje velikih.* Available [online]: https://www.capital.ba/u-bih-najvise-registrovanih-mikro-preduzeca-najmanje-velikih/ [in Bosnian]

[17] CPU (2019) *Zašto nam je neophodno manje oporezivanje rada.* Available [online]: www.cpu.org.ba/blog-bih/post/2019/zasto-nam-je-neophodno-manje-oporezivanje-rada/ [in Bosnian]

Such practices are widespread and have significant long-term social and economic implications. First of all, they created unfavorable working conditions for employed workers who do not have a lot of work experience, have no legal protection, have a low pension base, live and work in fear of being caught in illegal work, and in the case of an injury at work, they are left without existential means. These practices, one of the key results of the current tax policy, have significantly impaired the fiscal discipline of businesses, impacted the tax morale of the population, reduced the stability of funds, and discouraged investment in human capital, which contributed to the poor image of the private sector and businesses.

Another important effect relates to the lack of competitiveness of the economy. The Bosnian economy (especially manufacturing companies operating under regulations) is less competitive, as the cost of labor has to be calculated into the final price of the product, so domestic products often cannot be more favorable than the products imported from countries in the region, which prevents them from taking a significant market share.

> TAXATION OF LABOR, AS OPPOSED TO THE VAT SYSTEM, IS VERY SELECTIVE AND, THEREFORE, UNSUCCESSFUL

High taxation of labor has other manifestations; companies do not have the resources to invest in marketing, design, research and development, which further reduce the competitiveness of domestic products on trade shelves. All this directly affects their market growth, financial and investment strength, and in many cases, survival in the market[18]. The competitiveness rate is very low according to the Global Competitiveness Report 2019 – Bosnia and Herzegovina held the 92nd place[19].

TAX THE LABOR AND THE LABOR WILL GO AWAY

However, all things considered, the biggest visible result of the tax system punishing labor is the departure of labor from Bosnia and Herzegovina. This is a process that began with the opening of borders to EU countries in 2013. A visa-free regime was then introduced for most EU countries, enabling hundreds of thousands of indigenous workers to decide to seek happiness elsewhere.

Until then, it was considered that capital is too scared – if you tax it too much, it will cross borders and flee to another country. After the borders were opened, the same formula proved true for labor – modern workers have less and less patience to wait for major reform moves and change of the state. Instead, they use the first opportunity to try and work somewhere else.

High unemployment rates, low wages, social insecurity, and low living standards are all among the leading reasons why dozens of families leave Bosnia and Herzegovina every day. Although there are no clear estimates of how many citizens have left so far, the data shows that it may be as high as

[18] Ibid.

[19] Schwab, K. (2019) *The Global Competitiveness Report*, World Economic Forum.

half of the population in total – being partly a result of the 2013 migration wave. This means that, at the moment, there are only about 500,000 people left in the country[20].

What is clear is that this has become a "herd of effect", which means that leaving Bosnia is openly talked about, and young people are increasingly seeking their prosperity outside of the country. The worst-case scenario is that somewhere down the road, Bosnia and Herzegovina might be left with no population at all. The biggest culprit for all of this is the tax system that terrorizes workers. This only worsened this year after Germany further liberalized opportunities for assimilation of Bosnian workers[21]. Germany is otherwise the largest importer of labor from Bosnia and Herzegovina, but the question is how to compete with wages that are five to ten times higher, the Western European social systems, and a better quality of life in general. Deterministically, it is imminent for Bosnia and Herzegovina to share the fate of other countries of the Western Balkans, Eastern Europe, and the Baltics. One part of the population simply has to move out, which later, through good mechanisms and strategies, can be compensated through the economic benefits of the newly formed diaspora – foreign direct investment, partnerships, and know-how transfer.

AVERTING THE CRISIS

What to do? Understanding that the tendencies to leave cannot be stopped, it should be noted that it is possible to mitigate these trends and retain domestic workers, and thus strengthen the economy. This can be done primarily through reforms to the fiscal system, which has already been advocated by the international partners of Bosnia and Herzegovina, and concretized in the form of the Reform Agenda.

Specifically, it is necessary to lower the cumulative contribution rate. At the start, the total rate can be lowered from 41.5% to 33% of the gross wage. Later, this can be lowered even more – to 25%. This would significantly relieve employers and increase the possibility of raising wages. Employers prefer to pay their workers rather than the state. Also, a significant portion

> ”
> AS THE PRIVATE SECTOR IS NOT ABLE TO PAY HIGH WAGES DUE TO HIGH CONTRIBUTIONS, MOST TALENT STILL GOES TO THE PUBLIC SECTOR, WHERE WAGES AND WORKING CONDITIONS ARE SIGNIFICANTLY BETTER

[20] Oslobođenje (2019) *Evo koliko je ljudi napustilo BiH u posljednjih šest godina.* Available [online]: https://mojabih.oslobodjenje.ba/b-v-logovi/evo-koliko-je-ljudi-napustilo-bih-u-posljednjih-sest-godina/1269 [in Bosnian]

[21] Njemačka ambasada Sarajevo (2019) *Njemačka otvara tržište rada za kvalifikovanu radnu snagu iz zemalja izvan EU.* Available [online]: https://sarajewo.diplo.de/ba-sh [in Bosnian]

of employers understands that material compensation has an impact on higher productivity. Otherwise, productivity in the region is very low, as shown by a current World Bank report[22].

The next question, after this intervention, is how the stability of large social systems will be maintained. The answer to the above is reflected in the constant increase of indirect tax revenues – consumption. This revenue grows annually up to 6%, which is significantly higher than the economic growth rate of about 3% annually. So, using this positive trend, which may continue if some black swan does not occur in the form of global, European, or regional recessions, Bosnia and Herzegovina can lower the tax burden on work, reduce the tax wedge, and at the same time stabilize large social systems – by redirecting surplus revenue from indirect taxes to the partial financing of these systems.

There is another important assumption to consider, which is that by reducing the social security contributions to labor (specifically health insurance and pension and disability insurance contributions), the government will increase the consumption potential of workers. Employment will also increase, as employers will be more motivated to hire additional workforce. This will also increase total consumption, and consequently also revenues from VAT and other indirect consumption taxes. However, along with a tax reform, it is necessary to continue with the reforms that will increase the efficiency (rationalization) of the social protection system and public services, and affect the expenditure side, i.e reduce the "losses" caused by inefficiencies. This would further strengthen their stability, as well as improve the safety of the workers themselves and the rest of the population.

At the same time, several reforms must be conducted: reducing the contribution rate, shifting indirect tax revenues to social systems, and ultimately reforming social systems to improve their efficiency. Ideally, all of them can be further strengthened through the complete or partial privatization of promising state-owned enterprises (such as BH Telecom), for which an in-depth analysis is already underway to assess its value. Privatization money could be used to guard the entity budgets against potential turbulence in these major fiscal reforms.

Of course, it should be noted that there is a plan B, which is an increase in the VAT rate – an idea that has been cautiously announced by international circles. This plan is far more realistic in the context of political will, but, on the other hand, it must imply a strong guarantee, a commitment to truly reduce contributions to labor.

The worst option is to increase VAT and keep contributions the same – It would push Bosnia and Herzegovina's recession in the wrong direction, and reduce any chance of developing its economy. However, should

> ”
> SOMEWHERE DOWN THE ROAD, BOSNIA AND HERZEGOVINA MIGHT BE LEFT WITH NO POPULATION AT ALL

[22] World Bank (2020) *Global Economic Prospects – Slow Growth, Policy Challenges,* Washington: World Bank Group.

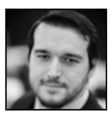
the VAT rate really increase to, for example, 21%, without differentiation, with a reduction in the rate of contribution to gross wages to 25%, then it would be a strong message for domestic workers, employers, and the entire economy. Psychologically, an individual prefers to have a higher wage, with a slightly higher price of products and services, than a lower wage, with slightly lower prices of products and services. The difference is in the choice or the possibility for the individual to decide what to do with their money, which is Milton Friedman's argument, and is why plan B can also be presented as a liberal solution.

INSTEAD OF A CONCLUSION

There are a number of internal contradictions that prevent Bosnia and Herzegovina's tax system from moving forward and prospering. The good thing is that the international community, especially the European Union, still heavily influences the country. True, Brexit is not in favor of countries like Bosnia and Herzegovina because it throws out the liberal British/Anglo-Saxon approach to central authority politics in Brussels. However, international efforts sometimes produce results.

The only thing that is giving results relates to the carrot-and-stick principle, best expressed through international aid and credits to Bosnia and Herzegovina. The IMF and the World Bank have done this for years. Otherwise, there is no indication that the system will reform itself, but rather that it will remain *status quo*, implying that the wave of emigration will continue.

Although the citizens of Bosnia and Herzegovina are witnessing these scenes on a daily basis – loss of their neighbors, their immediate family members, watching tears on television and in the media – there is still no democratic consciousness to translate emotions into a concrete voice in elections for change. The general population is prone to economic populism, such as the differentiated VAT rate, the introduction of progressive taxation in income tax, and the like. However, if something is not done soon, this kind of a fiscal system will stifle and reduce the nation, so that, in the end, only a few will remain to finally turn off the light and leave Bosnia and Herzegovina in the dark.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ADMIR
ČAVALIĆ

Director of a libertarian association "Multi", based in Bosnia and Herzegovina

Taxation of Labor and Capital in Poland: Recent Trends and Challenges

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ALEKSANDER ŁASZEK

The majority of people around the world complain about taxes they have to pay. However, in the case of Poland, it is not only the size of the tax burden that poses a problem, but also complicated and unclear rules in place. In theory, particular levies can be easily classified as: taxation of consumption, of capital, or of labor. In practice, the distinction is often not so clear. Furthermore, official labels of different levies (in particular, taxes and social security contributions) are sometimes used in a misleading way. Such inconsistencies create serious problems for the Polish tax system, encouraging taxpayers to arbitrage, which provokes unnecessary disputes with tax administration. Therefore, the system needs to be reformed. The only question is: how?

> THE MAIN SOURCE OF PUBLIC REVENUES IN POLAND ARE INDIRECT TAXES (LEVIED MAINLY ON CONSUMPTION) AND SOCIAL SECURITY CONTRIBUTIONS (LEVIED ON LABOR)

OVERVIEW OF THE POLISH TAX SYSTEM

The main source of public revenues in Poland are indirect taxes (levied mainly on consumption) and social security contributions (levied on labor). In 2018, tax revenue in Poland amounted to 35% of GDP. This included:

- **14.3% of GDP from indirect taxes.** The most important ones were VAT (8.1% of GDP) and excise (3.4% of GDP), both levied on consumption;
- **13.3% of GDP from social security contributions.** Formally, social contributions are divided between employer and employee, and some of them are even paid by pensioners (healthcare contribution, which is included in this category), but, in reality, in the long run they are paid by workers[1];
- **7.8% of GDP from direct taxes**, with PIT (5.3% of GDP) being by far the most important, followed by CIT (2.1% of GDP).

Overall, the tax burden in Poland is higher than in the majority of regional peers. Although it is below the EU average of 36.7% of GDP, it should be noted that more affluent countries with large government expenditure drive this result to a large extent. Poland, with its aspiration for faster economic growth, should be compared with its regional peers that are at a similar level of development.

Within the region, Polish taxes are well above average, substantially higher than in Bulgaria, Romania, Latvia, Lithuania, Estonia, and Slovakia.

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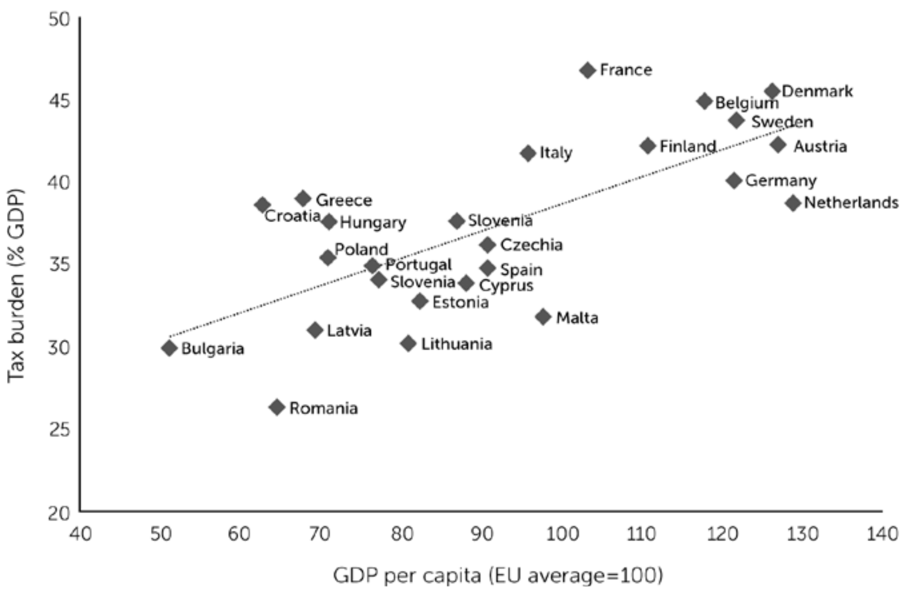
[1] See: An overview of 52 empirical studies on this subject by González-Páramo and Ángel Melguizo (2012), who conclude that after market adjusts, nearly whole social security contribution is actually paid by workers. Available [online]: https://voxeu.org/article/who-really-pays-social-security-contributions-and-labour-taxes

Figure 1: GDP per capita and tax burden (including social contributions) in the EU (2018)



Source: European Commission

While relatively low reliance on direct taxes in Poland is growth enhancing, the high importance of social security contributions is more troubling. Several studies show that not only the size of tax burden, but also its composition, has a significant impact on economic activity and prosperity[2]. The main finding is that from the growth's perspective, the least harmful are taxes levied on consumption and real estate.

Such results are quite intuitive – in the long run, economic growth depends on input of labor and capital. So taxes and social contributions that lower monetary rewards for working and investing undermine growth potential. However, the taxes that make consumption and holding real estate more expensive have a much smaller impact on people's decisions about working and investing, and thus are more growth-friendly.

Looking at taxes in Poland from the growth's perspective gives a mixed picture. On the one hand, direct taxes constitute only 22% of total tax revenue (including social contributions) – well below the EU average of 30%, which is clearly growth-friendly. On the other hand, social contributions

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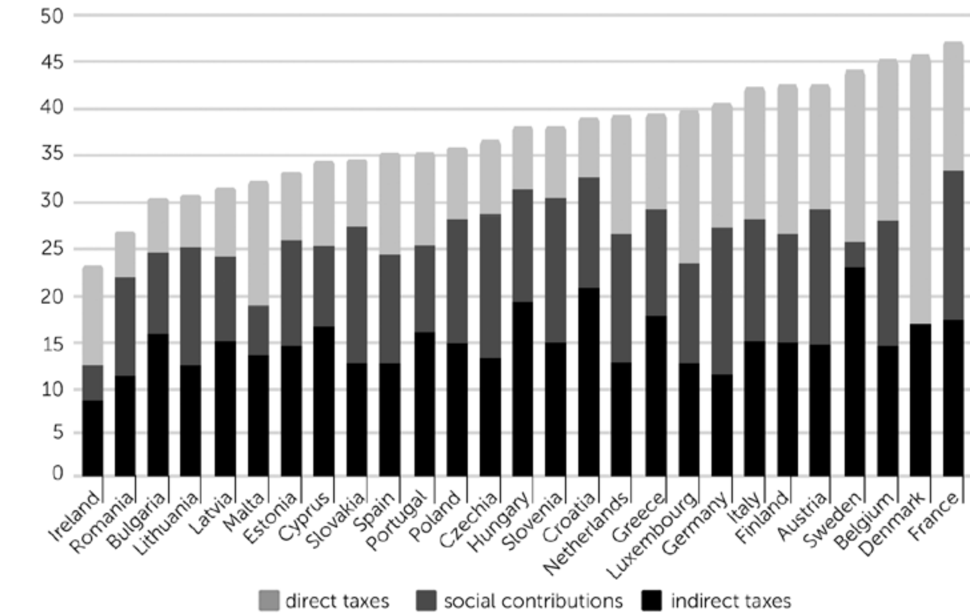
TAX BURDEN IN POLAND IS HIGHER THAN IN THE MAJORITY OF REGIONAL PEERS

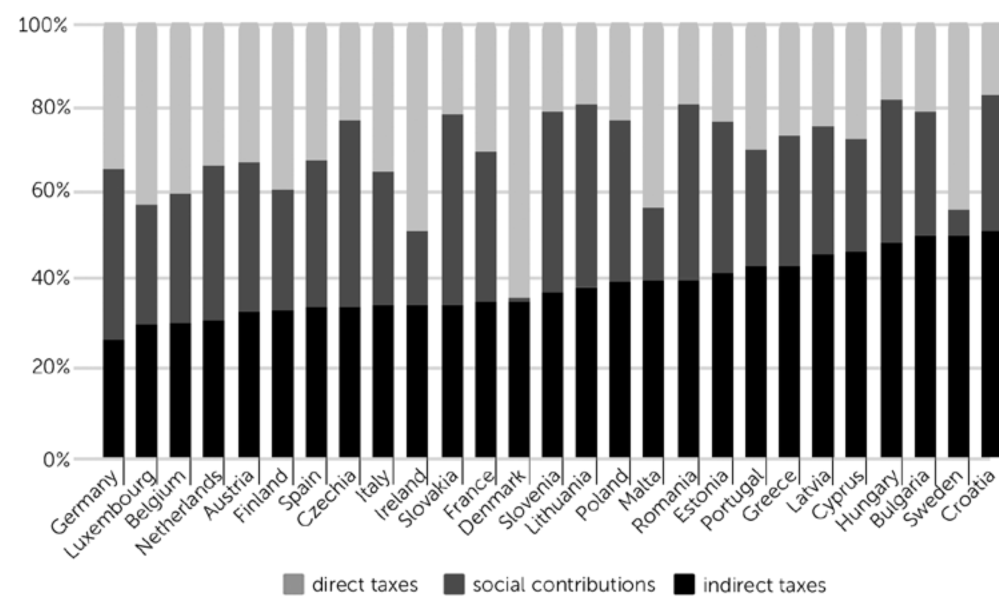
[2] For the impact of tax structure on economic growth see, for example: Johansson, Å., Heady, C., Arnold, J., Brys, B. and L. Vartia (2008) *Taxation and Economic Growth*, OECD Economics Department Working Papers. 10.1787/241216205486.

Figure 2: Taxes and social contributions as % of GDP (2018)



Source: European Commission

Figure 3: Structure of tax burden (2018)



Source: European Commission

represent over 37% of revenue – significantly above the EU average of 30%. The remaining part – indirect taxes – is in line with the EU average of 40%. So while relatively low dependence of public finances on direct taxes is beneficial, the huge burden of social contributions is something that government should work on by shifting more of the burden on to consumption.

SOCIAL CONTRIBUTIONS IN NAME ONLY

In Poland, the label of social security contribution obscures the economic character of several levies. According to the Eurostat's definition, social contributions *"(…) are contributions made by households to social insurance schemes to make provision for social benefits to be paid (…)"*. However, the strength of the link between contribution and the benefit varies significantly between different contributions.

On the one hand, there is sickness insurance – employee pays 2.45% of their wage and in case of illness receives sickness benefit equal to 80% of the wage. So the link between the base from which the contribution is calculated and benefit is straightforward. On the other hand, there are several contributions where such a direct link is missing – for example, although the rules governing healthcare contribution and its effective burden vary significantly between different professions, all of them are equally entitled to the public healthcare services.

> POLISH TAXES ARE WELL ABOVE AVERAGE, SUBSTANTIALLY HIGHER THAN IN BULGARIA, ROMANIA, LATVIA, LITHUANIA, ESTONIA, AND SLOVAKIA

In general, levies labeled as social security contributions can be divided into two broad groups:

- public healthcare insurance (NFZ);
- remaining social security contributions (ZUS and FP).

Healthcare insurance contribution is *de facto* another tax on labor. For the majority of taxpayers it is just another levy subtracted from their income: the rate is 9% and the base of contribution is nearly the same as for PIT – gross income minus ZUS (employee part), with the majority of it (7.75% out of 9%) being tax deductible. So while people usually think that income tax rates in Poland are 17% and 32%, in fact, they pay 18.25% and 33.25%, which can be divided into 9.25% or 24.25% PIT and further 9% of NFZ contribution. The only important advantage of a separate healthcare contribution is that it is a natural budget constrain on public health spending. In case that healthcare would be financed from PIT and become part of annual parliamentary budget process, there would be a serious risk of MPs voting for higher spending, without a link to revenue.

The way the NFZ contribution is calculated does not only obscure the effective tax rate, but also makes the calculations much more complicated. The base for NFZ and PIT is similar, but not the same: as regards PIT, the majority of taxpayers are entitled to a minor lump sum deduction (around EUR 15 monthly), which is not applicable to NFZ. Therefore, each levy must be calculated separately, making the process unnecessarily time-consuming.

> WHILE PEOPLE USUALLY THINK THAT INCOME TAX RATES IN POLAND ARE 17% AND 32%, IN FACT, THEY PAY 18.25% AND 33.25%

Labor Fund contribution (*Fundusz Pracy*, FP) is a misleading name for an additional tax on labor. Contribution for FP is paid by the employer, thus the majority of taxpayers are not aware of this levy, which is equal to 2.45% of gross wage. The aim of the Fund was to finance labor market policies, but over time politicians started to use it as a piggy bank for programs ranging from scholarships for doctors, to support of mothers that decided to give birth to heavily disabled children instead of having an abortion. Clearly, the lack of connection between the contribution and the benefit is apparent, and such programs should be financed from general taxes.

Besides FP contribution, there is a much smaller contribution of 0.1% of gross wage, also hidden on the side of the employer. It goes to the Guaranteed Employment Benefit Fund (*Fundusz Gwarantowanych Świadczeń Pracowniczych*), which was set up in order to finance overdue wages of employees of bankrupt companies. However, as the number of bankruptcies went down, politicians have found other ways to use money from the Fund, once more breaking the link between contribution and benefit.

ZUS contributions together constitute the largest levy on labor in Poland. Basically, these include four contributions (old-age pensions, disability, sickness – paid voluntarily, and accident insurance) and in each case the strength of the link between contribution and benefit differs.

Formally, contributions in various proportions are divided between employer and employee, but as it was already stated, in the long run, their burden is effectively passed on to the workers. The base for all the contributions is gross wage; the rates are as follows:

- **19.52% old-age pension contribution**, with the annual base capped at 30 average wages in general, the link between contribution is straightforward: a pension is calculated as a sum of indexed contributions divided by life expectancy. But in 2017, the retirement age was lowered to 60 for women and 65 for men, the growing share of the population will not manage to pay contributions for anything more than guaranteed fixed minimum pension, which breaks the link between contribution size and amount of benefit;

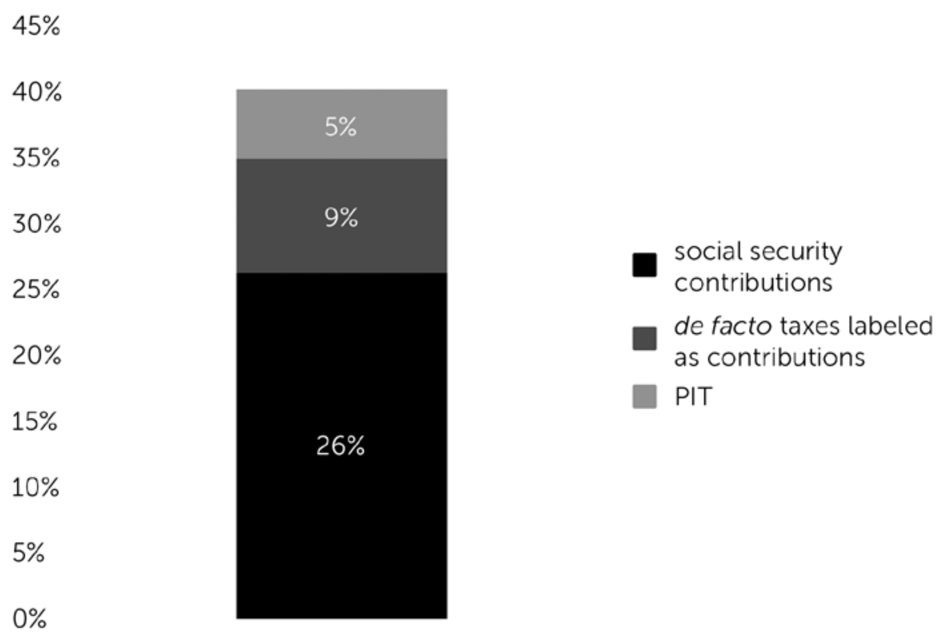
- **8% disability pension contribution**, with the annual base capped at 30 average wages – it covers not only disability, but also survivors' pension; they are both linked to paid contributions, but formulas are more complicated than in the case of old-age pension contributions;

- **2.45% sickness contribution** – here the link is straightforward, as the sickness benefit is 80% of the same base as sickness contribution;
- **0.4–3.6% accident insurance contribution** – this contribution differs between employers; for companies where more accidents occur, they pay higher contributions, thus creating strong incentives for a safe working environment.

Altogether, social security contributions constitute 7/8 of the tax wedge in Poland, with the remaining 1/8 left for PIT. Box 1. presents how social contributions and taxes are calculated for a worker earning an average wage. However, by looking deeper into the character of subsequent contributions, it may be said that out of a 40% tax wedge, social security contributions amount to 26%, while taxes and *de facto* taxes amount to 14%.

> ZUS CONTRIBUTIONS TOGETHER CONSTITUTE THE LARGEST LEVY ON LABOR IN POLAND

Figure 4: Tax wedge for average wage in Poland as % of total labor costs



Source: Own elaboration

WHO SHOULD PAY SOCIAL CONTRIBUTIONS?

Heavy reliance of public finance on social contributions in Poland makes a distinction between income from labor and capital crucial. By definition, contributions are levied on income from labor, so they must be clearly separated from the income from capital. In the case of larger enterprises such a distinction is not very controversial, but the problem is much bigger when it comes to numerous microenterprises and the self-employed.

The self-employed and business owners in Poland have a range of options of how to pay social contributions and taxes. They pay social contributions calculated from a self-declared base, which (with some exceptions) must not be lower than 60% of average wage. A great majority of these entities choose to pay contributions calculated from the lowest possible base, turning them into a lump sum payment.

In the case of PIT, the self-employed can choose between a progressive tax with two brackets of 17% and 32% and many different tax breaks, and a linear 19% tax with a much more limited number of breaks. The idea behind a 19% PIT was to put it on an equal level as CIT, which is also 19%. This way, the proponents of such a solution argue, incorporated businesses and sole proprietors are taxed at the same rate. It is, however, only partly true, because owners of incorporated businesses also pay PIT from dividend payments. So their income from capital is taxed

BOX 1: HOW IS THE TAX WEDGE CALCULATED FOR AVERAGE WAGE?

In 2019, average gross wage in Poland was PLN 4,918. The total labor cost paid by the employer constituted of gross wage and social security contributions on the employer's side, and amounted to PLN 5,925. This is the sum of:

a) PLN 1,007 of **social security contributions on the employer's side**, which are calculated as percentage of gross wage (9.76% – old-age pension contribution; 6.5% – disability pension contribution; 1.67% – accident insurance contribution; 2.45% – Labour Fund contribution; and 0.1% – Guaranteed Employment Benefit Fund contribution);

b) PLN 4,918 of **gross wage**, which is further divided into:

- PLN 674 of **social security contributions on the employee's side**, also calculated as a percentage of gross wage (9.76% – old-age pension contribution; 1.5% – disability pension contribution; and 2.45% – sickness contribution);
- PLN 382 of **health care contribution**, calculated as 9% of gross wage minus social security contributions on the employee's side;
- PLN 353 **PIT**, calculated as 17.75% (in the 4th quarter of 2019, the rate was lowered from 18% to 17%, which gives an effective annual rate of 17.75%) of gross wage minus social security contributions and tax allowance, which gives PLN 682, but from this amount part of healthcare contribution (PLN 329) is tax deductible;
- PLN 3,509 of **net wage**.

> SOCIAL SECURITY CONTRIBUTIONS CONSTITUTE 7/8 OF THE TAX WEDGE IN POLAND, WITH THE REMAINING 1/8 LEFT FOR PIT

twice, which yield an effective rate of 34%[3], while sole proprietors pay only once, 19%.

Lump sum social contributions, coupled with linear PIT, make self-employment attractive for highly qualified employees. In theory, flat PIT was meant for income from capital, but in the case of the self-employed the distinction between income from capital itself and that from labor is blurred. The self-employed may well refer to a person renting apartments and outsourcing all the maintenance, which would mean that his income comes mainly from the capital. They can also be consultants, in which case their input will be mainly labor. Nonetheless, besides such clear-cut cases, there are many situations in-between – e.g. owners doing maintenance and marketing on their own, thus providing not only capital (apartment), but also their own work. Also, as was already mentioned, consultants can operate their own expensive equipment, thus their client will be paying both for labor (the consultant's work) and capital (equipment used by the consultant). Furthermore, self-employment is not the only exception in tax and social security contributions system. Incomes from different types of contracts are taxed in various ways, encouraging tax arbitrage [See: Figure 5].

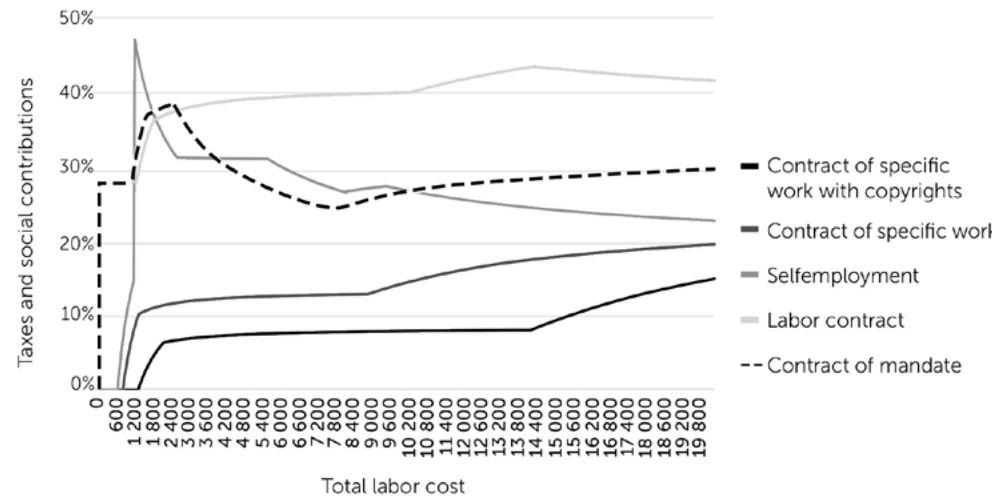
[3] The effective tax rate can be lowered if the business is eligible for preferential CIT regime.

Significant differences in effective taxation of different contracts make the tax system overly complicated, and are the source of conflicts between taxpayers and tax administration. Trying to tax similar actions or goods differently requires complicated rules – the Polish tax system is among the most time-consuming in the EU.

Furthermore, with huge discrepancies in tax rates, taxpayers have a strong incentive to dress their business in such a way so that they may apply the lowest rates, while the administration is trying to prove that higher taxed contracts should be used. For example, one company signed with workers "contracts of specific work" to dig a trench. For such a contract, a 9% tax rate should be applied. However, the administration pointed out that it should be a "contract of

> THE SELF-EMPLOYED AND BUSINESS OWNERS IN POLAND HAVE A RANGE OF OPTIONS OF HOW TO PAY SOCIAL CONTRIBUTIONS AND TAXES

Figure 5: Effective taxation of income depending on the type of contract [taxes and social contributions as % of total labor cost]



Source: Own elaboration

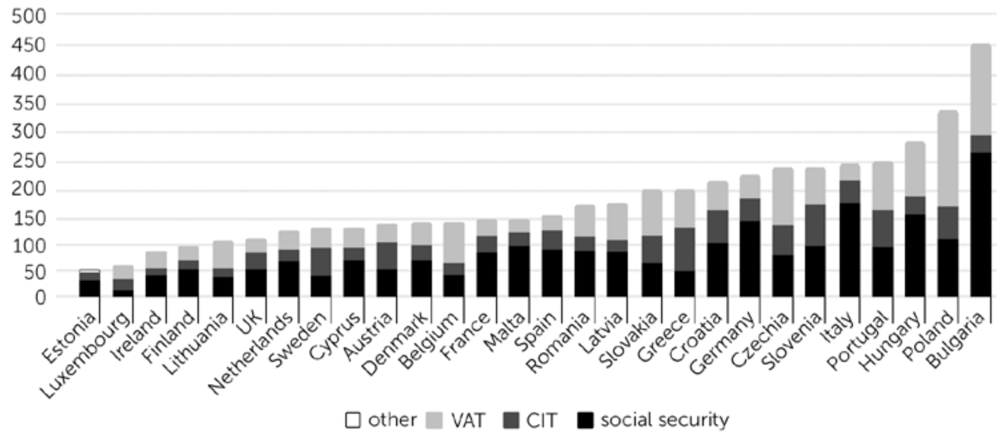
mandate" and a usual rate of 40% should be applied. As everyday life is even more complicated than complex tax rules, such disputes are common. In the case of the abovementioned trench digging, the Supreme Court was needed to settle it eventually[4].

Unfortunately, instead of remedying old issues, the current Law and Justice government has further deepened the already existing problems with the Polish tax system. Instead of making the rules clearer and the differences between various contracts smaller, the authorities have introduced even more tax exemptions and special regimes, simultaneously increasing reporting requirements. As a result of these actions, the time needed to file taxes in Poland went up drastically.

[4] The Polish Supreme Court recommended revising the initial verdict and redirected it to the Appellate Court, stating that the type of contract in place should be a contract of mandate.

> IN THEORY, FLAT PIT WAS MEANT FOR INCOME FROM CAPITAL, BUT IN THE CASE OF THE SELF-EMPLOYED THE DISTINCTION BETWEEN INCOME FROM CAPITAL ITSELF AND THAT FROM LABOR IS BLURRED

Figure 6: The annual time needed to settle taxes [year 2019, in hours]



Source: World Bank Doing Business

Furthermore, sanctions for different offenses went up, often out of scale when compared with European peers. Taking into account the complexity and instability of the tax code, running a business in Poland became even more risky. As a consequence of both tax incentives and increased risks, over the last four years Poland experienced a pronounced drop in the number of small and medium businesses. People either work for large companies, which are productive enough to pay full costs of labor contracts and have large legal departments to settle disputes with tax administration, or choose self-employment, which is taxed in a preferable way and thus often flows below the radar of the administration.

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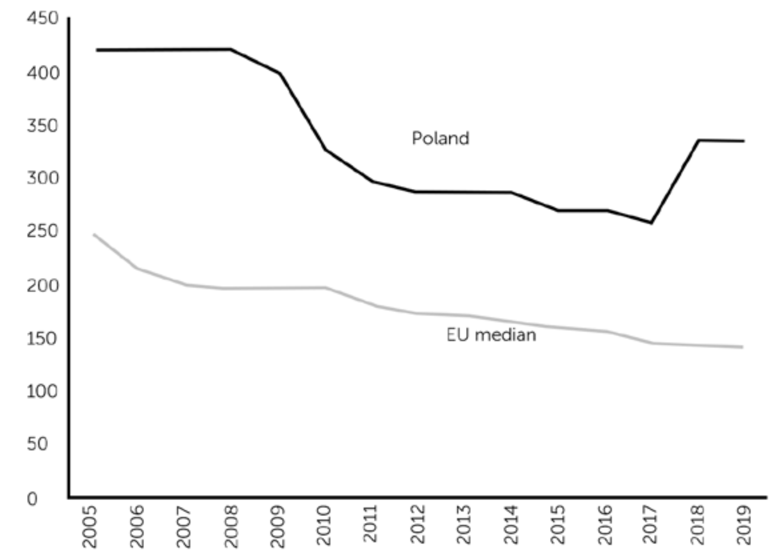
WITH THE CYCLICAL SLOWDOWN STARTING IN POLAND, FURTHER CONFLICTS BETWEEN TAXPAYERS AND ADMINISTRATION CAN BE EXPECTED

CONCLUSIONS

Looking at taxes alone in Poland tells us little about actual fiscal burden levied on labor and capital. The biggest part of the burden comes not in the form of taxes, but as social security contributions. The name is misleading, as part of them are *de facto* taxes, with no links between paid contributions and future benefits.

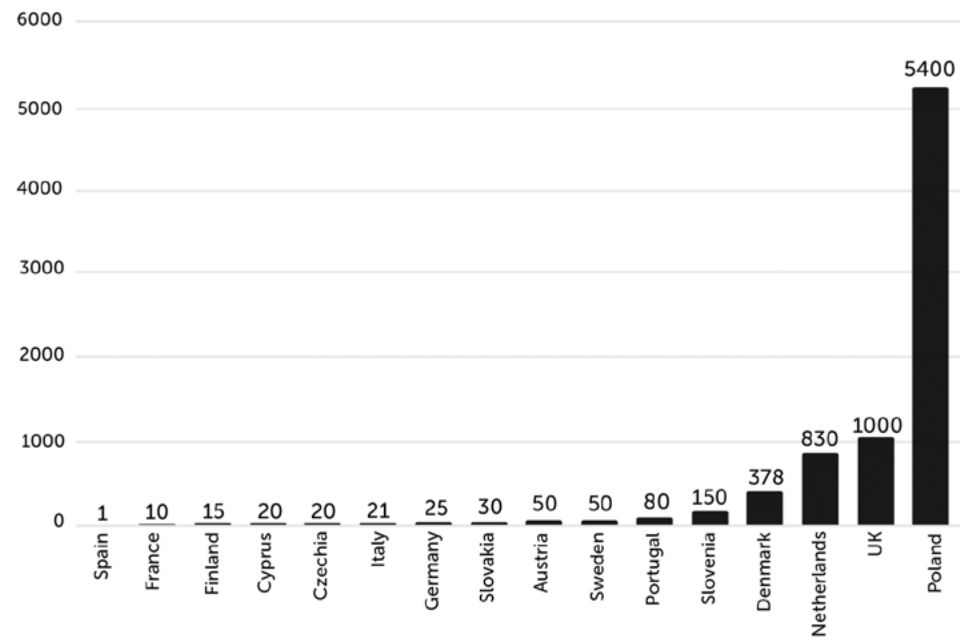
As contributions are levied only on income from labor, they create strong incentives for taxpayers to look for contracts where contributions are not applicable, or are at a lower level. The natural choice for them

Figure 7: Changes in annual time needed to settle taxes [2005-2019, in hours]



Source: World Bank's *Doing Business 2020*

Figure 8: Maximum penalty for non-compliance with the mandatory disclosure rules [EUR thousand]



Source: FOR, Own elaboration based on the data from the World Bank and a presentation by Adam Marianski entitled "Legislacja podatkowa w Polsce – Dokąd zmierzamy?" (October 1,2019)

> TAXATION OF LABOR AND CAPITAL IN POLAND NEEDS THOROUGH REFORMS

is self-employment, where the distinction between income from labor and capital is blurred, and thus the overall tax burden, including social security contributions, is lower.

With the cyclical slowdown starting in Poland, further conflicts between taxpayers and administration can be expected. With tougher market conditions, companies will be even more eager to look for ways of how to avoid high social security contributions and try to disguise labor costs, for example, as self-employed subcontractors. Simultaneously, slowing down the tax revenue stream will press the tax administration to search for taxpayer money even more forcefully. With complicated and unclear rules, it will be hard to say which side is pushing too strongly, and it will take years to settle cases in courts. Such conflicts will be a growing source of uncertainty further harming the business climate.

Taxation of labor and capital in Poland needs thorough reforms. In particular, in regards to the way in which social contributions are applied and levied on labor should be changed. These contributions that are just hidden tax, without any link to further benefits, should be simply merged into PIT, making the whole system more transparent. As for the remaining contributions, the right direction would be to lower the rates, while broadening the base, thus limiting the scope for arbitrage. In case of a broader reform, some of the burden could be moved from labor onto consumption, which would make the Polish tax system more growth friendly.

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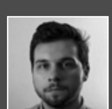
ALEKSANDER ŁASZEK

PhD, Chief Economist at the Civil Development Forum (FOR) his research focuses on long-term economic growth

Turnover Tax in Poland: Seduction by Simple Solutions



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ALEKSY PRZYBYLSKI

One of the most important problems of today's liberals and libertarians is how to translate the idea of liberty into a possible realization that would bring at least a bit of freedom. Nowadays, in a world of sophisticated systems of taxation and welfare states, it is very easy to make a mistake and thus roll over the first cube in this financial domino. As liberals working in such political, legal, and social environments, we are exposed to the risk of looking for easy recipes to expand freedom and to increase the pace of economic development.

One of the ideas that has recently gained the attention of the liberals in Poland is a turnover tax, which is presented as an ideal tax. Polish advocates of the turnover tax claim that it is cheap in collection, understandable and predictable to all, and tax optimization is almost impossible. However, few people realize what an economic tragedy it would be to try to simplify the tax system in a way, which is the result of relatively little knowledge of the current legal system and stems from common legal and economic myths.

> THE POLISH DEBATE TALKS ABOUT TURNOVER TAX AS AN ALTERNATIVE TO INCOME TAX

WHAT IS THE TURNOVER TAX?

Revenue is proceeds received by an enterprise from, among others, sales, so if the enterprise sold 10 units of goods for EUR 100 each, its revenue is EUR 1,000. If the state imposes a turnover tax on enterprises – most often referred to as rates between 0.5% and 2.5% – in this situation, the tax due will equal 5-25 cash units. Let us assume a rate of 1.5%; the income after tax will be 985 units, and only from this amount we deduct the tax-deductible costs, i.e. salaries, machine rental or depreciation, property rental, purchase of materials or semi-finished products. In the end, we receive income that can be used for dividend payments or further investments. The amount of turnover tax paid is not affected by the amount of costs, the size of the margin, or whether the company made a loss. Another problem is when a company invests all its surplus funds all the time, which forces it to either credit itself to pay taxes, or slow down its investment.

It is worth pointing out here that the Polish debate talks about turnover tax as an alternative to income tax. However, it was historically a substitute for VAT where it replaced the turnover tax in 1993. It is a popular tax, especially in the economies of developing countries, where a large informal economy exists.

Among the advantages of this tax, its supporters mention the enormous simplicity. This feature consists in the lack of deciding whether a given expenditure is tax-deductible or not, thanks to which, every entrepreneur is able to calculate what their tax liability is without any problems. As an advantage many people also point out that it is unavoidable, which, however, is not true and as such shall be proven later. Little knowledge about the possibilities of optimizing this tax probably stems from the fact that in Poland it exists mainly as an idea. It is only when it is translated into specific tax law regulation that we will be able to point out specific optimization possibilities. Still, we are already able to identify potential ways of its optimization.

WHAT IS INCOME TAX?

From a tax perspective, income is the difference between earned income and deductible costs. It should be emphasized that not every expense of an enterprise is tax-deductible, which depends on the law of a given country – tax-deductible costs may be defined differently by Poland and the United States. In general, a tax-deductible expense is any expense that contributes to the achievement of securing business revenue. Much depends on the purpose of the purchase; e.g. the purchase of a game console in the case of a grocery store will not be a cost, but if the activity of a given entrepreneur consists in being a gaming YouTuber, it is possible.

> NOT EVERY EXPENSE OF AN ENTERPRISE IS TAX-DEDUCTIBLE, WHICH DEPENDS ON THE LAW OF A GIVEN COUNTRY – TAX-DEDUCTIBLE COSTS MAY BE DEFINED DIFFERENTLY BY POLAND AND THE UNITED STATES

Moreover, governments can offer additional tax reliefs for investments. For example, in Poland, a decision on support can be obtained, thanks to which – once several conditions are met – a new investment can be exempted from corporate income tax for several years. The existence of such reliefs results in later accusations that Company X cheats on taxes. Unlike the turnover tax, the income tax provides one of the incentives for investments, and favors the tax shield effect in debt financing. This is because it becomes more profitable to reinvest profits than to pay dividends. Of course, this does not mean that the income tax is better than no income tax, because then other factors may gain importance.

It can be expected that if income tax would be replaced by turnover tax, various types of reliefs would also be introduced. This development, would, at the same time, contribute to complicating the tax system and open up additional opportunities for optimization.

It is worth noting that in the absence of income, enterprises will not pay income tax at all. What is more, the companies are able to reduce future income by losses achieved in an earlier period. This means that if in 2019 the company reached EUR 200 of loss and in 2020 it reached EUR 250 of income, the tax will be calculated only on the difference between them divided by two, i.e. on 25 cash units, because in Poland the enterprises can settle a maximum 50% of losses.

It should be emphasized that the lack of turnover tax is very important for low-margin industries, such as supermarkets, which operate on the effect of scale, as they make a small profit on individual goods, but sell so many of them that the business is profitable. In 2014 in Poland, the supermarkets were able to achieve a net margin of around 2%[1]. In 2018, Polish supermarket Dino, which is one of the fastest growing retail chains in Poland, was able to reach around 5.27% of net margin[2]. Meanwhile, Jeronimo Martins S.A. – the owner of Biedronka, the largest retail chain in Poland, and Hebe, a cosmetic chain – achieved a net margin of 3.9%, which was a growth by 0.63 p.p. compared to 2014[3].

Currently, non-financial companies pay income tax equal to approximately 0.8% of their revenues[4]. The median net margin for Polish companies listed on the Polish stock exchange between the third quarter of 2017 and the second quarter of 2018 was 6%[5]. Low-margin enterprises are not necessarily the least effective companies – sometimes they are even better than their competitors, because they produce the cheapest with the smallest margin, and achieve a high profit thanks to the effect of scale. It should be emphasized that every company – striving to maximize the return (profitability) on equity – would like to have the highest possible return on assets. However, since large profits (measured by the return on equity) attract competition, the consequence of a high turnover of equity is often accompanied by a low return on sales.

> CONSIDERING THAT, IN GENERAL, WESTERN COMPANIES HAVE A QUALITY ADVANTAGE, THIS IS NOT A GOOD SIGN FOR CEE ENTERPRISES

INCOME TAX EVASION

Many people accuse income tax that costs can be manipulated, making it easy to avoid. This is not entirely true, and much depends on specific tax regulations or the approach of local tax officials to entrepreneurs. The more complicated a tax code and unfriendly the tax administration is to the taxpayer, the greater the risk associated with any attempt at tax optimization. However, the more complicated the system is, the easier it is to optimize the tax. On the other hand, high risk means that the potential benefit must be high enough to compensate for possible tax penalties. It should be noted here that an aggressive tax administration may contribute to a reduction in tax optimization, but this is not a desirable feature of tax systems, as it simultaneously deters potential investors, which may lead to a a shrinking of the tax base. Of course, in a simple and friendly tax environment, entrepreneurs will continue to strive for

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[1] https://mises.pl/blog/2015/06/24/zielinski-jaka-jest-rentownosc-biedronki/ [in Polish]

[2] Own calculations based on: https://grupadino.pl/raporty-gpw/raporty-okresowe/ [in Polish]

[3] Own calculations based on Emis Professional Database.

[4] https://www.money.pl/gospodarka/wiadomosci/artykul/podatek-przychodowy-cit-biedronka-lidl,66,0,2304322.html [in Polish]

[5] http://stockbroker.pl/marza-netto/ [in Polish]

optimization, but the incentives for relocation will be reduced.

In 2016, the anti-abuse clause definitively ended quite a popular practice to set up companies in the so-called "tax havens", then transfer, for instance, the company's brand or logo to a newly established company. The next step was to lend this logo for an appropriate fee to a company in Poland, which resulted in the transfer of profits from the company in Poland to the company in the tax shelter. Thanks to this operation it was possible to lower the taxation of income at the rate of the fiscal paradise

At the moment, such a transaction is very difficult to execute because of the anti-abuse clause, which prohibits actions where the tax advantage is one of the main benefits. Similarly, it is not easy to create costs from nothing, or to transfer a profit by means of a transaction of purchase or sale of goods at an increased or reduced price for two reasons: it must now be proved that such a transaction took place, and because of the provisions introduced – thanks to the OECD – transfer pricing documentation.

Under the transfer pricing rules, transactions with related parties must be made at market prices. There are several methods to determine this arm's length price, one of which is to compare it with similar companies. The Polish regulations contain several conditions that a given transaction must meet in order to be subject to the obligation to document and report such transactions.

What is the process of creating transfer-pricing documentation? If company A in Poland has a subsidiary B, and has concluded a commodity transaction for the amount of PLN 11,000,000, both companies must prove that the transaction was concluded

> THE LOWER THE MARGIN, THE GREATER THE SHARE OF TURNOVER TAX DUE ON THE INCOME

on market terms, which means that the price for the given commodity corresponded to the price for which a similar transaction would be concluded with unrelated entities. While creating such documentation, there is some scope for manipulating market rates; however, at the same time, the tax authorities have the option to control and cancel the transaction. If the tax administration does not deny a transaction, it *de facto* approves it, thus it is difficult to talk *de jure* about a tax fraud.

IMPACT ON PRODUCTION

It is in the interest of individuals and of the state that the economy is as strong as possible. Individuals get wealthier, while the state increases its tax revenues. Therefore, it is worth considering which tax is the best – or, actually, the least harmful – for the economy. What will be the consequences for the economy of replacing the income tax with the turnover tax?

Imagine that you want to buy a table. There are two tables to choose from: foreign and domestic production. What will the supply chain and taxation look like?

Using the example of the foreign table, the case is as follows (the hypothetical value of the goods at a given stage is given in brackets):

> Wood from the Swedish forest (100) -> processed in a Swedish sawmill (300) -> furniture assembled in Germany (700) -> delivered to a wholesaler in the Czech Republic (800) -> delivered to a shop in Poland and sold in Poland (1000).

During such a transaction, the turnover tax will be levied once – on the income of the shop in Poland. At the rate of 2%, the tax paid in Poland will amount to PLN 20.

Now let us look at the taxation of one table production, which is 100% domestic production:

> Wood from the Polish forest (100) -> processed in a Polish sawmill (300) -> assembled in a Polish workshop (700) -> delivered to a Polish wholesaler (800) -> delivered to a shop in Poland (1000).

In this situation, five companies will be taxed. At the rate of 2%, the tax will amount to PLN 58. It will be borne in full by the Polish companies.

It is worth noting that it is not always possible to pass on the entire amount of the tax to the consumer. But let us assume that the entire amount of the tax will be passed on to customers. They will have to choose between a table for PLN 1,020 of foreign production, and PLN 1,058 of domestic production. The domestic product must be of such a higher value than the foreign one that it will compensate the higher price. Considering that, in general, Western companies have a quality advantage, this is not a good sign for CEE enterprises, as they will have to use their cost advantage even more. This, in turn, would affect employees and their budget.

We could also consider the example of a large corporation that is in charge of a whole supply chain:

> Wood from the company forest (100) -> processed in the company sawmill (300) -> assembled in the company workshop (700) -> delivered to the company store (1000)

In this case, the one transaction that will be taxed in the end is retail. All necessary processes took place inside the company. This gives the vertically integrated company an advantage over the chain of smaller companies.

> DUE TO THE RELATIVELY SHORT PERIOD OF CAPITAL ACCUMULATION BY COMPANIES FROM THE FORMER COMMUNIST COUNTRIES, THERE ARE FEW ENTITIES ABLE TO COMPETE FINANCIALLY WITH WESTERN GIANTS

WHAT DOES IT MEAN?

First of all, because of the turnover tax, the populist slogans that Poland is an assembly plant for the West will become reality. Thanks to this tax, there will be a strong incentive to move only assembly plants and distribution to Poland. It may turn out that there is no point in moving foreign customer service offices or departments of purchasing, accounting and finance, R&D, or even factories to Poland. Relatively popular Shared Service Centers do not supply any product to the external market; they exist only to serve the internal customer that is the parent company and other subsidiaries. Of course, SSCs achieve some revenue, but this occurs through transfers from affiliated companies in the form of payment for services, because the Centers have to pay their employees or office rent. Such a SSC will pay PLN 20,000 in tax for every PLN 1,000,000 of revenue, where PLN 1,000,000 is enough for an annual salary for about thirteen employees receiving an average salary[6].

Other operating costs of such a branch should also be taken into account – e.g. office rental or social contributions paid by the employer for each employee. And this is regardless of whether turnover tax will be introduced instead of VAT or income tax. Therefore, it may be a better solution to leave the market in Poland altogether or make it a place of purchasing the service of processing a given product – such as assembly of a ready-made table.

Moreover, it is worth taking a look at Tables 1-5, which contain several variants that differ in the margin achieved – from -1% to 10% – assuming the applicable tax rate of 2%. As you can see, with this seemingly low rate, a company must have a margin of ca. 7.9% so that the amount of the turnover tax due can be equal to the income tax due. It is worth noting that the lower the margin, the greater the share of turnover tax due on the income.

Companies create long supply chains through outsourcing of ordinary purchases of materials and semi-finished products on the market. This leads to a further specialization of companies, which is the source of development in the modern economy. The benefits of specialization are known thanks to the theory of comparative advantage. The benefit of such operations is the possibility to focus on providing their basic services or production and, if necessary, it is easier to leave the market. However, due

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POLISH UNIVERSITIES (MAINLY STATE UNIVERSITIES) PAY MINIMUM INCOME TAX OR NOT AT ALL, SO AFTER THE INTRODUCTION OF THE TURNOVER TAX THEY WILL HAVE TO PAY IT REGARDLESS OF THEIR INCOME

[6] In November 2019, it was PLN 5,229 gross, but the total cost of labor is PLN 6,300. See: https://stat.gov.pl/sygnalne/komunikaty-i-obwieszczenia/18,2019,kategoria.html [in Polish]

Tables 1-5: Comparison of profitability calculations for the income tax and the turnover tax

Assuming a profitability of 10%				
Revenue	1000		Revenue:	1000
Turnover tax	20	2%	Salaries	-250
Salaries	-250		Materials	-140
Materials	-140		Depreciation	-210
Depreciation	-210		Estates	-300
Estates	-300		Income gross:	100
Income	100		Tax 19%	19
% of income = turnover tax	20.00%		Income net:	81

Assuming a profitability of 7.5%				
Revenue	1000		Revenue:	1000
Turnover tax	20	2%	Salaries	-250
Salaries	-250		Materials	-140
Materials	-140		Depreciation	-235
Depreciation	-235		Estates	-300
Estates	-300		Income gross:	75
Income	75		Tax 19%	14.25
% of income = turnover tax	26.70%		Income net:	60.75

Assuming a profitability of 5%				
Revenue	1000		Revenue:	1000
Turnover tax	20	2%	Salaries	-250
Salaries	-260		Materials	-140
Materials	-140		Depreciation	-260
Depreciation	-250		Estates	-300
Estates	-300		Income gross:	50
Income	50		Tax 19%	9.50
% of income = turnover tax	40.00%		Income net:	40.50

Assuming a profitability of 2.5%				
Revenue	1000		Revenue:	1000
Turnover tax	20	2%	Salaries	-250
Salaries	-250		Materials	-140
Materials	-140		Depreciation	-285
Depreciation	-285		Estates	-300
Estates	-300		Income gross:	25
Income	25		Tax 19%	4.75
% of income = turnover tax	80.00%		Income net:	20.25

Assuming a profitability of -1%				
Revenue	1000		Revenue:	1000
Turnover tax	20	2%	Salaries	-250
Salaries	-250		Materials	-140
Materials	-140		Depreciation	-320
Depreciation	-320		Estates	-300
Estates	-300		Income gross:	0
Income	-10		Tax 19%	0
% of income = turnover tax	-200.00%		Income net:	0

Source: Own calculations

> IN TERMS OF ATTRACTING NEW INVESTMENTS, THE INCOME TAX HAS A HUGE ADVANTAGE OVER TURNOVER TAX

to the turnover tax, it is rational to eliminate unnecessary intermediary entities imposing their margin. This is an incentive for companies to vertically integrate their supply chain – the dominant entity will seek to take over its suppliers and customers. Moreover, if there is no need to show costs in Poland, there is another incentive to outsource at least part of the operations.

Here we come to the next consequence directly related to vertical integration. Namely, due to the relatively short period of capital accumulation by companies from the former communist countries, there are few entities able to compete financially with Western giants. This is to say, the ability of local businesses to carry out this vertical integration is smaller than that of their Western counterparts. For this reason, Western companies will have an advantage in this respect, but also in the outsourcing of certain processes to developing countries, or simply having certain processes in the countries with similar operating costs, but without the turnover tax. Generally speaking, a company that already has factories in a given country has an advantage over a company that is just about to move production there. In addition, local companies will have increased operating costs compared to their Western competitors – a Polish table producer will have to devote extra work to finding savings, increasing productivity or quality of service to compensate for the tax increase of PLN 38 per piece.

Another distortion of the structure of the economy through the turnover tax is that it favors high-margin sectors over low-margin ones. This means that some parts of industry, agriculture, or services can shrink significantly and move to other countries, without there being significant advantages for the transfer of high-margin businesses. The result will be the need to create a comparable number of jobs in services, and the cost of training workers previously employed in shrinking sectors, which will not be 100% successful, because not everyone wants or is able to change their profession. This, in turn, may lead to higher costs for the welfare system in the welfare states by increasing the number of people taking advantage of any kind of benefit. This phenomenon will also increase the costs of hospitals and educational institutions.

Currently, Polish universities (mainly state universities) pay minimum income tax or not at all, so after the introduction of the turnover tax they will have to pay it regardless of their income. Thus, a Polish university with PLN 1,000,000,000[7] of revenue will have to pay PLN 20,000,000 of turnover tax, despite the lack of income. Of course, *de facto*, on the scale of the whole state apparatus, this is only an accounting issue, but it shows well how extensive the effects of changes in the tax system can be.

[7] For example, Jagiellonian University had PLN 1,209,138,300 of revenue in 2018. See: https://www.gov.pl/web/finanse/indywidualne-dane-podatnikow-cit [in Polish]

TURNOVER TAX AND INVESTMENTS

In terms of attracting new investments, the income tax has a huge advantage over turnover tax. Namely, the income tax allows for deducting the cost of the investment – being a tax-deductible cost – from the tax due, which affects the calculation of the investment's profitability. If someone plans to make an investment, then in the case of the income tax they will not pay this tax and, what is more, they have to achieve income higher than the costs incurred to start paying. Of course, the government can keep the possibility of stimulation by introducing reliefs (e.g. exemption from taxation of income equal to X times the investment), but this will complicate the Polish tax system to some extent. It is important to remember that Poland, like other CEE countries, is a state with small capital resources. Therefore, if it wants to achieve the economic level of the West, the government should encourage investments even more.

The most important taxes in developed economies are quite similar to each other, so companies can assume that the income tax in Poland works quite similarly to that in Germany and differs only in details. Meanwhile, the introduction of a completely new tax may generate costs of modification or creation of a new accounting system and requires anticipating the costs of employee training. Especially, since a new tax often means uncertainty about the jurisprudence of administrative courts or tax authorities, which only arises with time. This is hardly an important argument against the income tax, but it is still a clear obstacle for companies.

> A NEW TAX OFTEN MEANS UNCERTAINTY ABOUT THE JURISPRUDENCE OF ADMINISTRATIVE COURTS OR TAX AUTHORITIES

The order to pay the tax regardless of the profit made will be a huge threat to the health of the economy. In a period of prosperity, this is generally not a big problem. But during an economic crisis, companies' revenues fall and they are often forced to restructure by selling or liquidating unprofitable parts of the company, laying off employees, or making investments that could reduce operating costs.

In a country with income tax, companies that make a loss (those in need of restructuring) do not pay the tax, so they are able to devote more capital to improving their situation. In the case of entities subject to the turnover tax, on the other hand, it may turn out that the tax obligation will result in deeper cuts than in the normal situation, which may result in higher unemployment and slower recovery from the recession. Moreover, investors will be aware of this risk, which will increase the risk of investing in a country with such a tax. This means that investors will expect a higher rate of return on invested capital, leading to a situation when many projects may not be started.

UNDER EUROPEAN UNION LAW, MEMBER STATES CANNOT INTRODUCE TAXES SIMILAR TO VAT

THE TURNOVER TAX VERSUS EU LAW

However, the most important obstacle may be a formal and legal issue – under European Union law, member states cannot introduce taxes similar to VAT. The settled case-law of the Court of Justice of the EU identifies four characteristics which must be met in order to establish an infringement of Directive 2006/112/EC: the general application of the directive, the fixing of its amount according to price, its collection at each stage of production and distribution, and the granting of a right of deduction from the tax due by the taxable person, with the result that the tax at a given stage applies only to value added tax and that the final burden of the tax is borne by the final consumer.

The turnover tax appears to meet the first three characteristics and the fourth partly, i.e. the passing on of the tax to the consumer, which is, in general, possible. According to the settled case law, failure to meet the fourth characteristic means that the tax does not infringe on the above-mentioned Directive. However, as indicated by the Jagiellonian Club, one can refer to the position of the Advocate General of the Court of Justice of the EU, who in his opinion criticized the line of interpretation adopted in the Hervis ruling, pointing to the narrow point of view of the case law[8].

HOW TO REDUCE HARMFULNESS OF THE TURNOVER TAX?

Attempts may be made to limit the harmfulness of the turnover tax by making the tax rate dependent on the amount of income, or the sector in which the company operates, or on the margin. Let us consider the characteristics of these criteria.

In the case of an industry-dependent rate, there is a problem with the classification of the company. While an enterprise dealing exclusively with coal mining is quite easy to classify, multi-branch entities will already be challenging. It is possible to go further and order companies to allocate revenues according to the sector in which it is obtained. In this case, part of the revenues will be taxed at a higher rate and part at a lower rate. However, we may fall into the dilemmas known from VAT in Poland, where, for instance, the VAT rate of a doughnut varies depending on the quantity of sugar and the shelf life[9]. In addition, this will require the involvement of specialists by the company to properly assign the goods or the company, and then officials will need to be involved to control what makes collection costs rise. Moreover, the industry-dependent rate will be a state interference in the structure of the economy – there may be a movement of capital from more taxed industries to less taxed ones. This, of course, will generate costs related to the training of employees, transformation of a given investment, etc.

The second solution is to make the rate dependent on the amount of income. It will not, however, really solve the problem, because companies that are most at risk are those with low margins, not low income – supermarkets have high revenues and low margins and will be the first victims. Lawmakers can go the other way – the higher the revenue, the lower the rate. Nevertheless, in such a situation, the legislators will favor existing large companies, which will be a factor that will encourage the largest ones to buy out other companies. This may lead to a partial monopolization of the economy. Especially as the lawmakers will hinder the development of companies with low incomes.

A third solution, seemingly the most effective, may not be the right one either. How is the tax office supposed to know what margin a company applies? It may be based on the company's declarations or documents, but how is an official supposed to verify that the taxpayer does not manipulate accounting data? Here comes to mind a market research of a given margin, which leads us to create transfer-pricing documentation related to the income tax.

IN THE CASE OF AN INDUSTRY-DEPENDENT RATE, THERE IS A PROBLEM WITH THE CLASSIFICATION OF THE COMPANY

The most important disadvantage of the solution based on making the turnover tax "more detailed" by introducing different rates and criteria is that it diminishes the biggest advantage of this tax – its simplicity. The simplicity of not classifying costs as tax-deductible and other costs, and of not requiring additional effort on the part of officials in the control process, making collection costs very low.

TURNOVER TAX OPTIMIZATION

The simplest and most obvious method is to transfer factories, SSCs, warehouses, and, in extreme cases, even assembly plants or distribution points from Poland to a country with a better tax system. In the simplest way, management is informed about the planned changes, establishes a company in a foreign country and sells everything, then taxes the income and transfers the money to the new entity. Alternatively, they make a donation to the new entity and close the old company.

The second, equally simple, but much more costly and rather less beneficial, is the acquisition of other companies in the supply chain. The scale of the benefits depends on the final form of such a tax, but in the worst case the enterprises will reduce their revenues by eliminating the margin of intermediaries.

Small businesses may also not record actual sales, which also happens in the system with income tax. However, the turnover tax gives a stronger incentive to do so. The current Polish government is trying to fight this by introducing, among others, cash registers connected to the internet where all transactions are recorded and cannot be deleted.

The government may also encounter, as mentioned earlier, manipulation of the classification of goods or activities of the

[8] http://jagiellonski.pl/files/other/Podatek_od_sprzedaYy_detalicznej._Skutki_ekonomiczno-prawne_RAPORT_IJ.pdf [in Polish]

[9] https://poranny.pl/polskie-absurdy-podatkowe-paczek-a-stawki-vat-sa-az-trzy/ar/c3-13924873 [in Polish]

THE MOST IMPORTANT DISADVANTAGE OF THE SOLUTION BASED ON MAKING THE TURNOVER TAX "MORE DETAILED" BY INTRODUCING DIFFERENT RATES AND CRITERIA IS THAT IT DIMINISHES THE BIGGEST ADVANTAGE OF THIS TAX – ITS SIMPLICITY

company in case of introduction of multiple rates. If local tax offices classify the enterprises according to their activity, the former may encounter a division of the enterprise into production, service, and trade entities, between which prices for goods or services will be set so that the highest possible revenue will be achieved by the entity with the lowest tax rate. This is where market research of a given transaction, i.e. transfer pricing documentation will apply.

Alternatively, in the case of the criterion of the margin achieved or the amount of income, the entrepreneurs may divide the entity into several others, which then remain within the limit. Suddenly, instead of one company managing all the stores of a given brand, investors will have a separate company for each store.

It is also possible that companies will be established as brokers between the producer and the final customer. In such a scenario, the broker will not be the owner of the commodity and will thus earn commission on sales. Meanwhile, the actual selling party will be the producer or importer.

THE STORY OF BRAZIL

By now, it should become clear that whether or not to adopt the turnover tax should be based more on practice than theory. The world has been deliberately moving away from this type of taxation. Brazil is one of the examples.

Brazil, which in 2002 started the process of transforming two taxes calculated on revenue – *Programa de Integração Social* (PIS) and *Contribuição para Financiamento da Seguridade Social* (COFINS) – into VAT. The replaced tax was a contribution to a social inclusion programme, whereas the latter is a social security contribution. Before the reform, both contributions altogether amounted to 3.65%.

The case of Brazil was investigated in 2015 by Bruno Caprettini, currently associated with the University of Zurich, together with Antonio Ciccone, a researcher from the University of Mannheim, who published a paper on the subject within the Private Enterprise Development in Low Income Countries project. Using their findings, let us examine the effects of the reform[10].

[10] https://pedl.cepr.org/publications/turnover-taxes-and-productivity-evidence-brazilian-tax-reform

BRAZIL, WHICH IN 2002 STARTED THE PROCESS OF TRANSFORMING TWO TAXES CALCULATED ON REVENUE INTO VAT

First of all, the biggest benefit for companies was the reduction of operating costs for all producers. What is important is that the distribution of this benefit was asymmetrical – the companies that bought more were much more taxed and, thus, after the reform they benefited most from it. In other words, the longer the supply chain, the greater the effect.

It has to be taken into account that, in general, longer supply chains have companies producing complex products – the shorter the supply chain will be for the production of tables rather processors – and these are usually the products whose production brings more value to the economy, and also bring with it R&D centers. Here we see what has been described above – complicated production becomes less profitable in the country with the turnover tax. According to the researchers, if a given good was the subject of a transaction twice, the benefit from the tax transformation was three times higher than in the case of a good being only once the subject of a transaction. This is because if a given good is exchanged twice, the tax affects two transactions, not one. The authors of the analysis also point to a reduction in productivity as a result of vertical integration, which they believe may be encouraged by the turnover tax.

What is more, the cost reduction allowed to lower the price and increase production – again, the higher the cost related to the turnover tax, the higher the price reduction and production increase. For example, Brazilian textile producers reduced the price by an average of 15.2% and increased sales by 11.6%. In Bruno Caprettini's other work, *Taxes, Misallocations and Productivity*, he indicates that, on average, employment in the industry increased by 2.71%, revenue by 4.13%, and sales by 4.14%[11]. Here it is worth highlighting Bruno Carpretitini's observation that some companies did not record all sales due to the turnover tax. The model developed by the authors of the publication showed that the elimination of the turnover tax in Brazil resulted in benefits equal to 3% of total tax revenues. This can be seen even in relatively short production processes.

CONCLUSIONS

The idea of abolishing income tax, much hated by friends of freedom, seems very attractive and right, but replacing it with the turnover tax significantly reduces the attractiveness of this change. The turnover tax leads to a distortion of the structure of the economy by promoting the construction of large corporations and discourages the production of complex goods. For many, this is an effective tax on multinational large corporations, but paradoxically, it will hit small, local, and independent enterprises, which, above all, do not have enough capital to compete effectively with

[11] https://pedl.cepr.org/publications/taxes-misallocations-and-productivity

THE SUPPORTERS OF THE TURNOVER TAX FORGET THAT, IN GENERAL, WITH LESS REGULATION OF A GIVEN TAX, THERE IS ALSO A GREATER POSSIBILITY OF TAX OPTIMIZATION

corporations. As a result, the latter may lose their customers, i.e. the corporations in question.

The supporters of the turnover tax forget that, in general, with less regulation of a given tax, there is also a greater possibility of tax optimization as fewer operations are banned or controlled. A better solution seems to be to improve, for instance, by unifying the definition of the current taxes in Poland and working on improving the administrative and legal climate, rather than fighting for something that sooner or later will be regulated – like the income tax.

As mentioned at the beginning, liberals face the threat of looking for shortcuts in the fight for greater freedom or economic growth. The temptation is to reach for simple and, at first glance, effective solutions. However, the above example of the turnover tax shows that every proposal, even the most attractive one, requires an in-depth analysis to allow for a reliable assessment.

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ALEKSY PRZYBYLSKI

Currently works for a consulting company. The co-author of comic books about Kapitalis

Simplified Tax System in Ukraine: To Be or Not To Be?

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OKSANA KUZIAKIV

A simplified tax system is one of the essential tools for supporting small and micro businesses and self-employment in Ukraine. Entrepreneurs who are using a simplified system pay a fixed amount of tax or a fixed percentage of income. Moreover, recordkeeping and paperwork for such business entities are also significantly simplified. The system has existed since 1998 and has undergone many changes during this period. The problem is that although the system does, indeed, give some support to micro- and small businesses, it created different types of distortions and disincentives.

Mainly, the distortions are due to that the simplified tax system is widely used by medium and large businesses to optimize their tax expenditures. Companies make their full-time employees quasi-self-employed ones who are working under a simplified system, and thus reduce their tax burden. Society and business are divided. On the one hand, there is the understanding of a necessity to have a tax regime that supports micro- and small business and the self-employed. On the other hand, the abuse of this regime creates imbalances in the market, distorts competition, and leads to injustice. There is a heated debate in Ukrainian society about the future of such a tax regime.

In Ukraine, the enterprises and private entrepreneurs that use the simplified tax system pay a special tax (single tax) that replaces some of the other taxes and fees – primarily corporate income tax (CIT), personal income tax (PIT), and value-added tax (VAT). A single tax is based on a simplified accrual principle that allows its payers to reduce their accounting and reporting costs.

The simplified tax system has played a hugely positive role in Ukrainian history. Twenty years ago, in the late 1990s, it helped bring out of the shadows a large part of the people forced to solve the issue of survival on their own amid the deterioration of living conditions and the economic crisis. To get "live" money (not, for example, goods instead of salaries), people started trading. The country then became a large "bazaar" of small traders and cooperators[1]. Criminals and the state immediately began to press on these entities. The former one took a "tribute" from the traders in the markets, whereas the latter – a large number of documents written in the USSR times and penalties for non-compliance with the rules prescribed in these documents.

In order to simplify the life of start-up entrepreneurs by reducing the regulatory burden and to protect them from criminals, a combination of a simplified taxation system and

> THE SIMPLIFIED TAX SYSTEM IS WIDELY USED BY MEDIUM AND LARGE BUSINESSES TO OPTIMIZE THEIR TAX EXPENDITURES

[1] See: https://translate.google.com/translate?hl=uk&prev=_t&sl=uk&tl=en&u=https://project.liga.net/projects/29_years/interview2.html

legal status was introduced under the name of "Individual Entrepreneur" (FOP). A key aspect of such a combination is simplicity – only one report and one tax with a simple registration is required.

The simplified tax system contributed to the development of entrepreneurship in the country. Soon after its introduction, partial legalization of doing business in the country took place. Kravchuk, Betliy, and Burakovsky, the authors of a study on the simplified taxation system stated, "comparing the advantages and disadvantages of different options for getting out of the shadows suggests that partial legalization may be quite attractive to business entities"[2].

However, over time, the system began to be used to optimize the tax burden. The business started to "optimize" the tax burden, including hiring *de facto* workers as *de jure* sole proprietors. This strategy helped them avoid burdensome taxation of the payroll and the personal income tax. Some experts believe that under such conditions in Ukraine, two parallel tax systems exist, and the business substantially reduces the cost of labor in a questionable manner, which creates unequal conditions and distorts competition[3]. Moreover, some experts and business representatives accuse the other part of the business of using a simplified taxation (and reporting) system not for its intended purpose, but for other situations – e.g., for the sale of goods imported with a breach of customs rules (smuggling).

” THE SIMPLIFIED TAX SYSTEM HAS PLAYED A HUGELY POSITIVE ROLE IN UKRAINIAN HISTORY

In recent years, there has been a debate about the scale of this phenomenon. One of them focuses on whether the simplified system helps (by supporting small and micro-business development and self-employment) or harms (by creating unequal conditions for similar businesses by distorting competition) the taxpayers? Certainly, a wide plethora of studies on the topic of a simplified tax system[4] are available; however, due to a lack of accurate statistical data, their results often depend on the attitudes of the authors. Also, it led to a public debate on the efficiency of a simplified system, which focused in part on political expediency and populism.

WHAT ARE SIMPLIFIED TAX SYSTEM (SST) AND SINGLE TAX (ST)?

At the time of its introduction, the simplified tax system (SST) offered a possibility for legal entities and single entrepreneurs to pay one tax (the equivalent of approximately USD 80 in 1999). The legal entities should not have more than 50 employees with a turnover that does not exceed UAH 1 million. The number of employees for a single entrepreneur should not exceed ten persons, and turnover should not be higher than UAH 500 thousand.

[2] Kravchuk, K, O. Betliy, and I. Burakovsky (2016) *Simplified System: Evaluation in a Contemporary Context*, Kyiv: Institute for Economic Research and Policy Consulting.

[3] See: *Novoye Vremiya* (2020) "What Awaits the FOP? Real Tax Reform Should Abolish "Simplified"". Available [online]: https://nv.ua/ukr/biz/economics/shcho-chekaye-na-fopiv-data-reform-curative-curtail-sprosh-chenku-worker-prem-yera-newspaper-ukraine-50072310.html

[4] See, for example: http://iset-ua.org/images/Analitish-na-robota-dosvid-MSB.pdf?fbclid=IwAR267hywbAMjUhOY9vsdBRJ4aqkPI9yYBwBGFmweKxpzR9fSAXZRPwCyx4o; http://ua-outlook.com.ua/en/2019/07/06/smuggling-schemes/; https://zn.ua/business/uproschenka-ne-unichtozhat-no-usovershenstvovat-342430_.html; http://iset-ua.org/ua/doslidzhennya/item/90-yak-zmenshyty-mozhlyvosti-dlia-ukhylennia)

Since its introduction, the simplified taxation system has undergone numerous changes concerning: (1) single tax rates, (2) accrual principles, (3) the list of single tax substitutes, and (4) criteria granting the right to use the SST to enterprises and individual entrepreneurs.

The SST remained unchanged from 1999 to 2004. The most significant changes took place in 2010, and included an increase in the liability for single taxpayers to pay contributions to the Pension Fund; and in 2012, when a revision of rates and a change in the ST accrual principle for part of the payers occurred. In 2010, four groups of taxpayers of SST were distinguished – the groups have a different tax obligation and period of reporting, and also differ depending on the type of activity, volume, client etc., – for instance, the first two faced restrictions on working with taxpayers on the overall tax system.

” DURING THE TRANSITION FROM THE SOCIALIST ECONOMY TO THE MARKET ECONOMY IN THE 1990S, RAPID CHANGES OCCURRED IN MANY SPHERES OF LIFE IN UKRAINE

In 2012, in contrast to 2010, the newly proposed changes in SST were aimed at the liberalization and expansion of the system. As a result, the number of payers who could take advantage of this system has increased. In particular, the updated version of the system (1) raised the threshold for the amount of annual income that gives the right to use SST, (2) abolished the fixed tax rates for each employee, (3) increased threshold for the number of employees, and (4) reduced the list of activities that do not allow to work on SST. In 2012, taxpayers' coverage of the simplified taxation system was expanded to create two more groups (5 and 6) for individuals and legal entities, respectively, with income up to UAH 20 million. Since 2015, the number of groups has decreased from 6 to 3, plus 4 groups for agricultural activities.

To date, legal entities and private entrepreneurs that have the right to use SST must meet the following requirements: (1) the volume of sales is not more than UAH 20 million per year (about USD 840,000)[5], (2) the type(s) of activity are allowed for ST payers[6]. Permitted activities include all types except those specified in the Ukrainian Tax Code. Currency exchange, the major part of financial, insurance, and investment services, operations on excisable goods, as well as the extraction and sale of minerals (except locally) are not permitted. Also, legal entities are not allowed to use the SST

[5] In the Tax Code of Ukraine, the amount of sales payers ST designated period of the "annual income".

[6] As noted above, this report does not cover Group 4. payers (agricultural enterprises).

if the share of legal entities that do not use the SST in their statute capital exceeds 25%.

The single tax thus replaces the following taxes:

1) income tax;
2) personal income tax;
3) VAT on the supply of goods and services within Ukraine (except taxation of ST payers who are both VAT payers), and;
4) property tax. Also, single taxpayers are not payers of military dues.

There are four groups of ST taxpayers. The three groups relate to the main types of economic activity discussed above, and the fourth group concerns exclusively representatives of agriculture and small farms. The criteria for assigning particular entities to these groups are clearly set [See: Table 1].

WHY WAS THE SST INTRODUCED?

During the transition from the socialist economy to the market economy in the 1990s, rapid changes occurred in many spheres of life in Ukraine. In contrast, the regulation of these areas did not correspond to market economy ones. One of the problem areas was the tax system. It still was complicated, cumbersome, reporting and accounting was fit rather for the enormous Soviet industrial monsters, but not at all for the emerging micro-business sector.

It was the entrepreneurial initiative of the Ukrainians that mitigated the harmful effects of *de facto* closing down large enterprises in the 1990s. Thousands of people who were on a "forced leave" flooded the market – they became "shuttles" that carried simple goods from/to border countries (such as Poland, Slovakia, Hungary, and later Turkey). A complex system of tax reporting and accounting, coupled with high and progressive rates of payroll tax in the absence of enforcement, criminal racketeering, and economic crime, has put new entrepreneurs in severe conditions. They were pressured by the criminal mafia and rent-seeking government officials.

> ”
> IN 1998, THE PRESIDENTIAL DECREE INTRODUCED A SIMPLIFIED TAX SYSTEM, LIMITING THE REPORTING AND ACCOUNTING BURDEN, WHICH HAD BEEN IN PLACE SINCE 1999

The country was captured by informal forms of employment, receiving salary "from the pocket" was typical for many *de novo* companies. The role of small businesses was negligible, as SMEs could not develop because of the unsuitable and complicated overall tax system.

Back in 1992, the Cabinet of Ministers introduced a flat tax for individuals who traded on the market up to 100 UAH (about USD 50 in the price of 1999[7]). However, such

[7] Decree of the Cabinet of Ministers of Ukraine "On the Taxation of Citizens" No. 13-92, December 26, 1992.

Table 1. Requirements for different groups of users of a simplified tax system

	1st group	2nd group	3rd group	4th group
Legal form	Individual entrepreneur	Individual entrepreneur	Individual entrepreneur/legal person	Individual entrepreneur/legal person
Maximum annual income	UAH 300,000	UAH 1.5 million	UAH 5 million	No limits
Unified tax rate	Up to 10% of subsistence minimum (per month)	Up to 20% of minimum wage (per month)	5% of income (for VAT non-payers); 3% of income (for VAT payers)	From 0,19% to 6,33% of the normative monetary value of agriculture lands
Number of employees	No employees	Up to 10 employees	No limits	No employees (individual entrepreneurs)/ no limits (legal persons)
Fiscal period	Year	Year	Quarter	Year
Permitted activities	1) retail sale of goods on markets; 2) household services	1) services (incl. household services); 2) manufacturing and/or sale of goods; 3) restaurant industry	Any activities eligible for the Simplified Tax System	Agriculture (legal persons - share of agriculture must be not less than 75% in the previous fiscal (reporting) year; individual entrepreneurs – only production and sale of agriculture products
Consumers	Services can be rendered only to individuals	Services can be rendered to individuals and simplified tax system taxpayers	No limits	No limits

Source: Tax Code of Ukraine

a measure was not enough to make life easier for the Ukrainians, who took responsibility for their own lives into their own hands after many Soviet plants and factories had been closed.

In order to legalize the work of thousands of new entrepreneurs, reduce informal and shadow employment, the Ukrainian government decided to introduce simple rules for taxation and reporting for small businesses. In 1998, the Presidential Decree introduced a simplified tax system, limiting the reporting and accounting burden, which had been in place since 1999[8].

STATISTICS OF SIMPLIFIED TAXATION: RESTRICTIONS

The statistics of the operations of the simplified tax system are incomplete compared to the data describing the general tax regime. This is due to the fact that the system is "simplified", and entrepreneurs do not maintain and/or do not submit specific indicators to the relevant state institutions. Under the simplified tax system, micro-enterprises and legal entities provide a general financial statement: balance sheet and an income statement containing only six income and expense items[9]. Notably, the problem of missing or incomplete data relates to the description of those parts of the business that use a simplified taxation system and the legal form of registration of the business activity called "individual entrepreneur" (FOP). The individual entrepreneur does not submit any reports

> THE STATISTICS OF THE OPERATIONS OF THE SIMPLIFIED TAX SYSTEM ARE INCOMPLETE COMPARED TO THE DATA DESCRIBING THE GENERAL TAX REGIME

to the State Statistics Service. Therefore, to produce any statistical data regarding FOP activities, the State Statistics Service uses impersonal data on total income and the number of employees based on FOP's tax reporting.

IMPACT OF THE SIMPLIFIED SYSTEM ON THE BUSINESS ENVIRONMENT

After the introduction of a simplified tax system, entrepreneurial activity in the formal (legal) economy has increased in Ukraine[10].

According to the State Statistics Service, the number of small enterprises increased prior to the emergence of the simplified tax system – from 1996-1998, it increased by 80% – from 96,000 to 173,000. After the

[8] Presidential Decree "On Simplified System of Taxation, Accounting, and Reporting of Small Business Entities" No. 727/98, July 3, 1998; Presidential Decree "On Amending the Presidential Decree of July 3, 1998" No. 727 "System of Taxation, Accounting, and Reporting of Small Business Entities" No. 746/9928, June 1999.

[9] Angel, I., O. Betliy, and V. Kravchuk (2017) Offi cial Statistics SME in Ukraine, Kyiv: Institute of Economic Research and Policy Consulting. Available [online]: http://www.ier.com.ua/files//Projects/2015/LEV/pp_SME_statistics_2017.pdf

[10] For more, see : Kravchuk, K., O. Betliy, and I. Burakovsky (2016) *Simplified System: Evaluation in Contemporary Context*, Kyiv: Institute of Economic Research and Policy Consulting.

introduction of legal status labelled as "individual entrepreneur" and the simplified tax system, the growth rate of small enterprises from 1999-2003, decreased on average to 9.5%, and from 2004-2007, up to 4.4%[11].

There were similar trends in the number of employees in small enterprises, as well as in terms of the share of small enterprises in total sales[12]. In the case of the former, in the years 1996-1998, the number of employees grew by 9.5% annually (up to 1,560,000 people in 1998). In 1999-2003, growth rates declined to 5.5% per year on average (up to 2,034,000 people in 2003). In addition, in 2004-2007, the trend changed – every year, the number of employees in small enterprises decreased by an average of 4.8% (to 1,674,000 people in 2007). As of 2013, 2,010,000 people worked in small enterprises in Ukraine.

INDIVIDUAL ENTREPRENEURS (FOP)

According to the State Registration Service, as of the beginning of the year 2000, 1,047,000 FOPs were registered in Ukraine. From 2000-2008, their number increased rapidly – on average by 215,000 annually. From 2000-2004, the growth rate was 13.7-16.2% per year; starting with 2005, it began to slow down, and from 2011-2013 the number of entrepreneurs was declining over the years. As of January 1, 2014, the number of FOPs amounted to 3,040000, which is almost three times more than the level since the beginning of 2000.

Not all registered FOPs were active. According to the State Tax Administration, as of the beginning of 2000, only 750,000 FOPs (77.5% of the registered entities) were actual taxpayers. The data on the number

> INDIVIDUAL ENTREPRENEURS USE SST MORE ACTIVELY THEN TYPICAL LEGAL ENTITIES (COMPANIES)

of employees working in the FOP are available only for the period since 2006. During this period, the number of the employed initially increased – from 3,399,000 in 2006 to 4,223,000 in 2009. In 2010, after the introduction of an additional payment of social security contributions for SST taxpayers, the number of employed workers in the FOP fell by 34% to 2,794 million – mainly due to the reduction in the number of entrepreneurs, not employees. Later, the number of employees decreased again, this time to 2,233,000 in 2012; in 2013, it increased slightly to 2,281,000.

Thus, in the early 2000s (shortly after the introduction of the simplified tax system), the growth rates of new business entities in the form of individual entrepreneurs were significantly higher than the growth rates of new business entities in the form of legal entities (enterprises). Such trends thus clearly indicate that for the Ukrainian businesses operating at the time (trading in the markets, wholesale trading in small consignments of goods)the level of business skills, and the status of an individual entrepreneur on the SST was far more convenient.

[11] After 2007, the State Statistics Committee changed the definition of a "small business", which has made further analysis of growth rates impossible.

[12] Relevant data on FOPs are unavailable.

> ENTERPRISES THAT USE SST ARE WIDELY INVOLVED IN ECONOMIC RELATIONS

SIMPLIFIED SYSTEM OF TAXATION: 2019 STATISTICAL DATA

In 2019, a single tax was paid in Ukraine by 174,297 companies (15% of total number of legal entities) and by 1.3 million individual entrepreneurs known as FOPs (70% of total number of FOPs)[13]. The largest share of FOPs is in the second group of single taxpayers – accounting for 581,000 entrepreneurs (44.5%). 523,000 entrepreneurs who work under SST (40%) use the 3rd group of SST, whereas 200,000 (15%) of entrepreneurs use the first group of SST. The most significant number of business entities (companies) in the simplified tax system deals with real estate transactions (14%). Next, there is also wholesale (7.8%), agriculture (7.5%), and activities in the field of law and accounting services (5.7%).

Individual entrepreneurs use SST more actively then typical legal entities (companies). According to the State Tax Service (STS)[14], as of the beginning of 2019, there were 1,394,500 entrepreneurs under the simplified tax system. By the beginning of 2020, there are already 1,488,300. According to the STS, over the year 2019, budget revenues from the single tax have also increased – taxpayers paid UAH 24.95 billion of a single tax (25.5%; UAH 5.08 billion more than in 2018).

SIMPLIFIED TAX SYSTEM THROUGH THE EYES OF ENTREPRENEURS

The statistics presented above show that the simplified tax system has become a significant component of the economic environment in Ukraine. When analyzing the results of a survey conducted among small and medium enterprises (SMEs), even more arguments for this thesis may be provided[15].

SST BUSINESS ENTITIES ARE A SIGNIFICANT PART OF THE BUSINESS ENVIRONMENT

Among the SMEs surveyed in ABCA 2016, there were 47.3% of enterprises (or entrepreneurs) that work under the simplified tax system. Meanwhile, 51.1% of SMEs used the overall system of taxation. Most of the respondents were in the third group of single tax (41.3%). 5.5% of those polled worked in the 1st group, 25.6% were in the 2nd group, and 15.1% were in the 4th group (for agricultural enterprises).

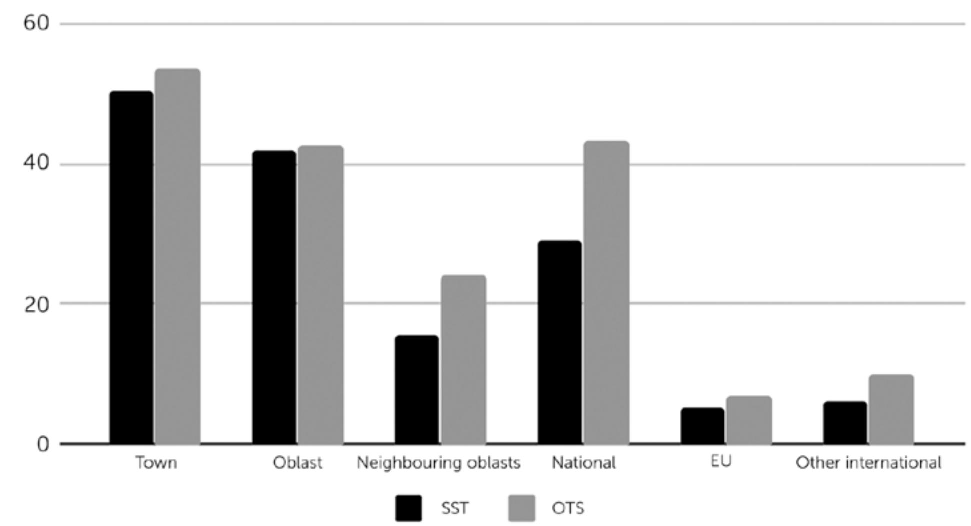
As noted above, the simplified taxation system is used mainly by individual entrepreneurs – FOPs. The SME survey results confirm this tendency. In particular, among the surveyed FOPs, 81.5% worked under the SST, while among the companies registered as legal entities, there were, on average, 33.6%. The larger the SME, the smaller share of SMEs use SST – there were 41.8% among micro companies, among small companies – 25.1%, and among medium-sized companies – 22.1%. On average, 12 persons are employed in a SST business entity, whereas 31 persons are employed by SMEs that use the overall tax system.

[13] As of July 2019, as calculated by opendatabot.ua. Available [online]: https://opendatabot.ua/blog/340-single-tax

[14] https://www.unian.ua/economics/finance/10867751-verlanov-kilkist-fopiv-v-ukrajini-prodovzhuye-zrostati.html

[15] An Annual Business Climate Survey, with participation of 1800+ small and medium enterprises (including 500 individual FOP entrepreneurs) was conducted in 2016.

Figure 1: Markets in which enterprises operate [%]



Source: Own calculations based on the database of Annual Business Climate Assessment, ABCA (2016)

Enterprises that use SST are widely involved in economic relations. 57.9% of respondents who work under the overall tax system indicated that their suppliers are SST enterprises, and 52.9% said that such entities are among their clients.

SST entities are also more likely to operate in local markets. For example, only 29% of respondents working in the SST indicated that at the moment (in 2016) the company operated in the national market, while among companies using the overall system of taxation, 43.1% worked in the national market.

Although businesses using the simplified tax system are typically smaller and more focused on local markets, they are also involved in foreign economic activity, yet to a rather limited extent [See: Figure 1]. 8.6% of respondents from the SST said that they conducted exports in 2016. Meanwhile, 15.5% of entrepreneurs working under the overall system admitted they exported goods. The corresponding data for importers are 6.5% in the case of the former, and 15.5% for the latter.

"TIME TAX" IS LOWER

One of the reasons why people in Ukraine are afraid to do business is communication with the state, which is still complicated and frustrating. According to the SME survey (ABCA Annual Business Climate Assessment), 27% of small and medium-sized enterprises considered the state an enemy, and almost 60% of SMEs viewed it as an obstacle[16]. The results of the survey show that entities that use SST spend less time communicating with the state. On

[16] Kuziakiv, O., et al (2017) *Annual Business Climate 2016: National and Regional Dimensions. Analytical Report*, Kyiv: Institute of Economic Research and Policy Consulting. Available [online]: http://www.ier.com.ua/files//Projects/2015/LEV/ABCA2017/ABCA2016_full_report.pdf

average, management (owners) of an enterprise with SST spends 13% of the time interacting with government representatives, and among those working under the overall tax system, this figure is 16%. Significantly less time is spent on tax-related matters by SST entities compared to the entities under the overall system of taxation – 7% and 10% of the time spent by executives or employees, respectively, addressing such issues.

Moreover, the SST business entities spend fewer resources on accounting. While 68.3% of SMEs working under the overall system always have a full-time accountant, only 31.5% of SST SMEs have a full-time one. 22.0% of the SST business entities outsource accounting services (12.1% are among those under the overall system), and 32.2% maintain accounting independently (among those who work under the overall system, only 9.1%). Here, it should be mentioned that some differences stem from the size of the companies – those under SST are typically smaller than those operating under the overall tax system.

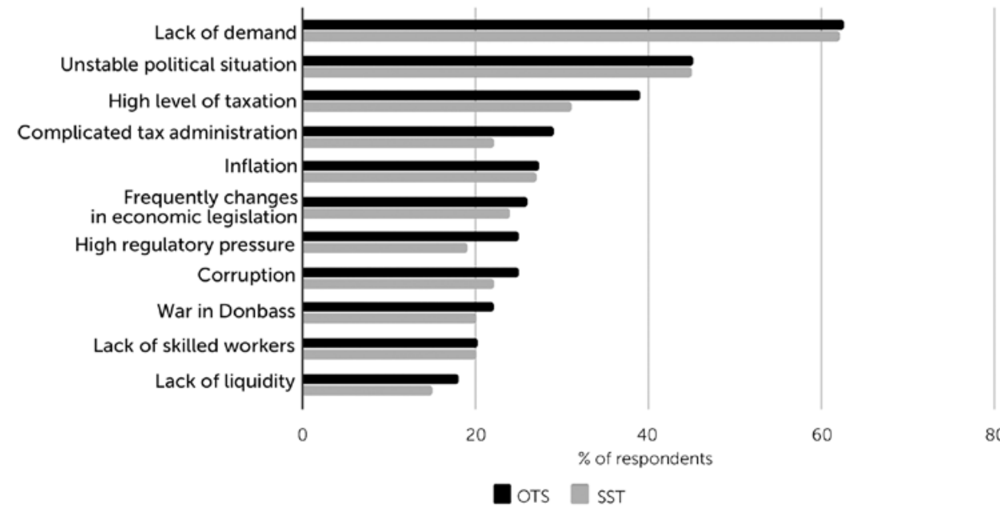
Another argument for the positive impact of the simplified tax system is the analysis of obstacles to business development. Businesses that use different tax systems have different implications for their barriers to business growth [See: Figure 2]. Significantly higher shares of enterprises under the overall system of taxation, compared to the simplified one, indicate a negative impact on business growth of high tax rates (39% vs. 31%), burdensome tax administration (29% vs. 22%), and high regulatory pressure (25% vs. 19%). Also, entrepreneurs that use SST assess the business climate better. Thus, 11.7% of SMEs that used the simplified tax system considered the business environment to be favorable, whereas only 7.0% of those under the overall tax system expressed such an opinion.

> ONE OF THE REASONS WHY PEOPLE IN UKRAINE ARE AFRAID TO DO BUSINESS IS COMMUNICATION WITH THE STATE, WHICH IS STILL COMPLICATED AND FRUSTRATING

In light of these observations, the problems with the tax administration for SMEs that use the overall system of taxation seem more serious than for those under the simplified system. This shows that a fixed tax level, fewer mandatory payments, and, more importantly, simplified accounting, helps SMEs avoid the problems that may hinder their business growth.

Entrepreneurs taking part in focus group discussions assessed the simplified tax system very positively. They noted that it reduces time costs, and facilitates the administration and payment of taxes. Also, entrepreneurs believe that thanks to the simplified system, SMEs are no longer dependent on the state, and rely solely on their forces. " One of the participants stated that "the positive aspect is that the people who are now self-employed are less prone to experience pressure from the government. In principle, people just try to get by on their own". The simplified system is considered

Figure 2: Obstacles to Business Development [%]



Source: Own calculations based on the database of Annual Business Climate Assessment, ABCA (2016)

to be not as complicated in reporting as the overall one, and is, therefore, accessible to people without specialized training. That is, the system, as the respondents claimed, "helps people who are unable to hire a person to keep records", because they can independently handle their case related to the documentation[17].

WHY ARE ENTREPRENEURS AFRAID OF MOVING TO AN OVERALL TAX SYSTEM?

Entrepreneurs working under a simplified tax system most often do not plan on switching to the overall one. This opinion was expressed by 85.1% of the respondents in the 2016 Annual Business Climate Assessment, all of who worked under the simplified tax system. The main reasons for such a position are the lack of need ("we do not plan to grow") and the complexity of the overall tax system.

Within the focus group, which was examined simultaneously to conducting the survey, entrepreneurs described their fears of moving onto the overall tax system. The overall tax system seems complicated to many businesses because entrepreneurs believe that by working under it they will spend more time and resources to keep records – including the need for warehousing. The more documents, the higher the possibility of making a mistake. Entrepreneurs are afraid of making errors in paper work because tax officials already had a tendency to impose fines or demand bribes.

All focus group participants agreed that moving from a simplified tax system to an overall one would cause a lot of difficulties for entrepreneurs. First, it would mean an increase in tax liabilities, which will raise the cost of production. It should be noted that the respondents understood

[17] The results of the focus groups were analyzed and described in the Annual Business Climate Assessment report and in the advisory paper: Gurama, Z. and M. Mansor (2015) *Tax Administration and Payment: Challenges and Prospects*. Available [online]: https://www.researchgate.net/publication/327664049_Tax_Administration_Problems_and_Prospect_A_Case_of_Gombe_State

that this would bring deterioration in their competitive position. "How do you justify raising the prices to your buyers?" one of entrepreneurs said. "People are used to the fact that your product has such a price in the market and you can no longer raise it, because you cannot give them an argument that you have switched to another system and, therefore, they must pay more now. The buyer will simply go over to another businessman", added another one. Second, operating under the overall tax system is more difficult than under the simplified one, so there is a need to hire an accountant, which will entail additional costs, because "*(...) the overall system means that it already involves accounting and the accountant himself*". This is why switching from a simplified to an overall tax system seems to them like a complicated process – one which requires an adaptive period and additional financial costs.

In order for the SMEs to stop being afraid of switching to an overall tax system, it is necessary to reform the system itself. The overall tax system should become simplified. This idea is supported by SMEs – all focus group participants were of the opinion that the main thing that would need to change was the simplification of the overall tax system. Only such a measure might enable the entrepreneur to avoid various difficulties during the administration, payment of taxes and sanctions imposed by the tax inspectors for the potential mistakes made in the reporting. In order for such simplification not to be a source of abuse, the state must take appropriate measures – in particular, to promote the financial culture of entrepreneurs.

> ENTITIES THAT USE SST SPEND LESS TIME COMMUNICATING WITH THE STATE

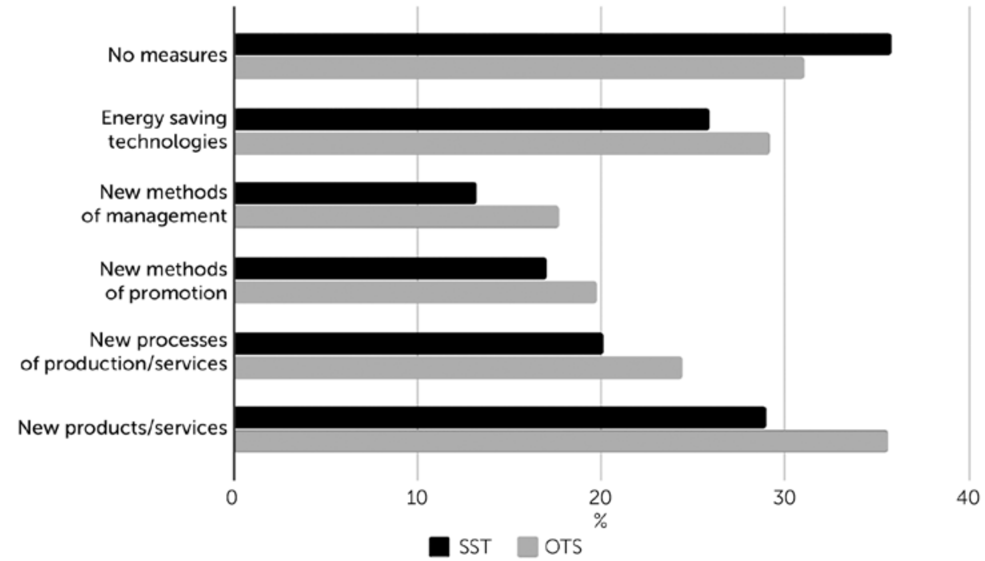
BUSINESS PROCESSES IN COMPANIES WITH DIFFERENT TAX REGIMES: IS THERE A DIFFERENCE?

Opponents of the simplified tax system said in the survey that internal business processes in the companies that use SST are not perfect, and such business entities do not have external incentives to drive innovation for development and growth. There is, however, no recent data to support or refute this hypothesis. However, an analysis of the results of the Annual Business Climate Assessment 2016 indicates that economic behavior and many business processes are either the same for businesses using the simplified tax system, and those operating under the overall system. If there was any difference in this regard, it was not very significant.

INTRODUCING INNOVATION

About a third of SMEs surveyed did not implement any innovative measures. Among those who use the simplified tax system, 35.8% of respondents reported the absence of innovation in their businesses. This share is slightly greater than among those who work under the overall system (31.0%), but the difference is still minor. Most often, respondents understood innovation as introducing new products or providing fundamentally new services – which was true for 29.0% of those using the SST, and 35.6% of those using the overall system. The second for both groups was the introduction of energy-saving technologies (25.9% and 29.2% respectively) – the difference between the two groups was also rather insignificant. Interestingly, representatives of both types of enterprises paid the least attention to the implementation of new management methods (13.2% and 17.77%).

Figure 3: Introduction of innovation at enterprises [%]



Own calculations based on the database of Annual Business Climate Assessment, ABCA (2016)

> BUSINESSES THAT USE DIFFERENT TAX SYSTEMS HAVE DIFFERENT IMPLICATIONS FOR THEIR BARRIERS TO BUSINESS GROWTH

Thus, the results of the survey do not suggest that there is a significant difference in the innovative behavior of entrepreneurs using different modes of taxation.

USAGE OF THE INTERNET OR SOCIAL NETWORKS AS A MARKETING AND PROMOTION TOOL

The results of the SMEs survey show that the entrepreneurs who work under a simplified tax system use online tools for marketing and promotion less often than the businesses that use an overall tax system. In particular, 37.2% of respondents using the SST do not use the Internet to promote goods (services), while among those who work under the overall system, it is only 24.2%. Only a third of respondents using the SST have a website, while more than a half of those who work under the overall system have one. Other types of promotion through the Internet or via social networks are also less commonly used by the enterprises operating under SST [See: Figure 4]).

IMPROVING MANAGEMENT SKILLS

Both the SMEs that work under the SST and those companies that use the overall tax system understand the need to improve management skills in their workplaces. However, among those working under the overall system, the share of respondents who work on developing their skills is higher. In particular, 12.6% of SST enterprises stated that they do not increase their knowledge of management, while among those working under the overall system, the respective share was lower – 7.4%. The top three most popular measures of improving management skills mentioned were: reading professional literature (61.0% among SST respondents and 69.6% among respondents from the overall tax system group), communication with more experienced managers (48.8% and 57.0%, respectively), and attending workshops and seminars (30.9% and 41.1%).

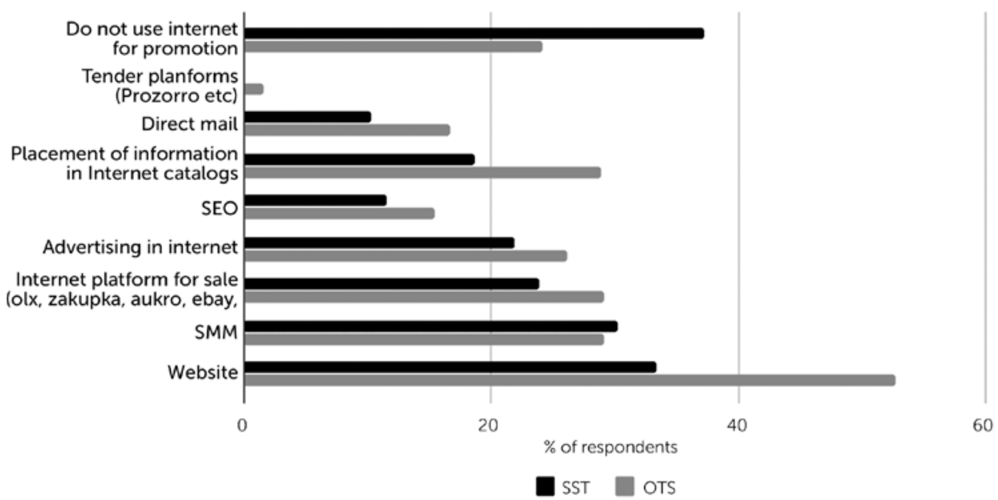
BUSINESS EXPECTATIONS

In 2016, general expectations of SMEs regarding business growth in two years' perspective were very positive. Respondents working under the SST had slightly lower expectations for their development – 41.2% of them planned to expand their business. In contrast, among the surveyed business entities that work under the overall system, the share was 47.5%. Accordingly, 41.3% and 37.5% of respondents from these groups did not plan any changes in the foreseeable future, and 9.9% and 9.3% expected their activity to decline within the next two years. 7.5% of those under the simplified system and 5.7% under the overall system could not forecast a two-year perspective. The more cautious plans of the SST enterprises may have been triggered by attempts to change the simplified tax system and rumors of its elimination, which are discussed in the Ukrainian political environment annually.

ABUSE OF THE SIMPLIFIED TAXATION SYSTEM

The Ukrainian experience of having a simplified tax system for more than twenty years shows that there are no perfect models. At the same time, any unique solutions are bound to create inequalities and opportunities for abuse.

Figure. 4: Using the Internet and Social Networks to Promote Goods and Services [%]



Source: Own calculations based on the database of Annual Business Climate Assessment, ABCA (2016)

> THE ENTREPRENEURS WHO WORK UNDER A SIMPLIFIED TAX SYSTEM USE ONLINE TOOLS FOR MARKETING AND PROMOTION LESS OFTEN THAN THE BUSINESSES THAT USE AN OVERALL TAX SYSTEM

Due to the tax burden and the complexity of the overall tax system, some business entities use this system for optimizing tax obligations, and lower the cost of doing business. The companies with a turnover above the level defined by the rules of the simplified tax system split into smaller companies to avoid the excessive burden and have opportunities to use SST. This division usually increases the cost of management, but significantly reduces the tax burden and paper work.

The existing tax regimes (one of which is more friendly for businesses) somewhat reduce the incentives for medium and large companies to grow because the rules of taxation, reporting, and accounting on the overall system are too complicated, and the tax burden is higher. According to the International Finance Corporation study, tax compliance costs for small businesses operating under the overall tax system are substantially higher than for large ones (with the difference in the corresponding expenditures between small and large taxpayers being significantly higher than in EU countries)[18], which lead to an increasing interest in SST.

Another way to abuse the simplified tax system is to use it in a *de facto* employment relationship between an employee and an employer. In Ukraine, labor taxation is quite high. There is an 18% income tax, 1.5% military tax, and a single social contribution (22%) paid by the employer from the payroll. For example, to pay USD 1,000 of net salary, an employer must budget USD 1,460.

However, when an employee is hired as an individual entrepreneur (FOP) of the 3rd group under a simplified tax system, the employer can easily save money. The tax obligations for the 1st and 2nd groups are lower than for the 3rd group, but only the 3rd group allows working with legal entities. As a result, instead of spending USD 1,460, the entrepreneur will spend for such a quasi "individual entrepreneur" about USD 1,093. Therefore, the benefit is quite obvious.

Apart from that, the loopholes in Ukrainian tax legislation allow for using the 2nd group of the simplified tax system instead of the 3rd one, which also reduces tax liabilities. In particular, in the IER 2016 study, the authors estimated the amount of income, which was hidden by single taxpayers of the 2nd group in 2014, at UAH 7.8-13.2 billion

[18] International Finance Corporation (2009) *The Costs of Tax Compliance in Ukraine.*

> IN UKRAINE, LABOR TAXATION IS QUITE HIGH

(about USD 500- 850 mln[19]), constituting 4.9–8.2% of the total income declared by the payers of this group[20].

Among the experts and business community in Ukraine, there are two opposing views about the relation of the simplified tax system and smuggling. The experts from the Ukraine economic outlook stated that, namely, one of the reasons why business entities with SST are used for smuggling is simplified accounting they conduct. The absence of an obligation to have documents that show the origin of goods and the possibility to sell assets without a cash register creates the opportunity to sell any amount of imported goods illegally. Therefore, as long as smuggling is possible through misuse of the simplified taxation scheme, the whole of the "simplified" system will always be under unjustified pressure from fiscal/controlling bodies, and explicit criticism from the "white" business that works under the overall tax system[21]. Meanwhile, according to the experts from the Institute for Socio-Economic Transformation, tax evasion ("optimization") through the simplified tax system is negligible compared to other schemes (e.g. offshore)[22].

Respondents of the ABCA 2016 survey also identified these negative phenomena. They found it unfair for competition when companies selling identical goods had different costs because the goods were imported in violation of the customs regime. To combat this, they suggested an increased control. This attitude does, however, create a clear paradox, as increasing control usually means reducing entrepreneurial freedom and increased corruption.

WHAT TO DO ABOUT IT?

Is it possible to eliminate a simplified tax system altogether and move all business entities into an overall tax system?

Any complication of the simplified tax system and accounting is detrimental to the development of micro-business in the country. The results of the 2016 ABCA SMEs survey show that small and medium enterprises generally assess the simplified tax system as positively. According to their opinions, this system reduces time costs and makes reporting more straightforward. The transition to the overall system scares entrepreneurs, as it would create the need to increase both communication with the state and spending on accounting. Meanwhile, resources in small and micro businesses are limited.

The presented analysis shows that the economic behaviors of the businesses that use the simplified tax system and those that operate under the overall one do not differ – they both face similar challenges and problems. Entrepreneurs using SST feel more protected from corruption and spend less time and resources on administration

[19] USD/UAH rate 1/15.7. Source: National bank of Ukraine.

[20] Kravchuk K., O. Betliy, and I. Burakovsky (2016) *Simplified System: Evaluation in Contemporary Context*, Kyiv, Institute of Economic Research and Policy Consulting. It needs to be mentioned that the authors of the research treated their calculations with caution because of data limitations.

[21] *Ukrainian Economic Outlook* (2019) "Analysis of Smuggling in Ukraine". Available [online]: http://ua-outlook.com.ua/en/2019/07/06/smuggling-schemes/

[22] https://iset-ua.org/images/Analysis-shem-2019-FINAL.pdf

But the advantages of SST are, at the same time, the same as its drawbacks. There are some kinds of thresholds that keep many companies from growth or even force them to divide into separate business entities. As it becomes clear from the presented overview, growing over the threshold means more administrative burden and higher tax obligations. At the same time, the phenomenon of businesses withholding growth is detrimental to the economy.

Does this mean that SST limits the growth of companies because it is "simplified"? Or maybe it is because the overall tax system is too complicated? The answer to that question seems obvious: it is both.

At the moment, it is unclear which part of the micro and small businesses that now use the simplified tax system will be able to use the overall one without increasing the cost of compliance they will bear (in terms of both money and time).

Therefore, the principle that should be followed when dealing with small businesses is "do no harm" and create conditions when such abuse is not beneficial to the large-size companies. This is precisely why the simplified tax system should be protected from possible abuses from dishonest entrepreneurs by differentiating income and changing the criteria for those who can use it, rather than by strengthening controls[23]. Summarizing, the coping of possible damage must be targeted, i.e. the measures should be directly aimed at fixing concrete problems. In the case of a simplified tax system, it is necessary to counteract precisely the optimization schemes and those business entities that use the system dishonestly. Modernization of this system should maintain its positive features that have contributed to the development of entrepreneurship in Ukraine over the last twenty years – namely, ease of use and inexpensive administration. In parallel, the overall tax system should be reformed so that in the future, all business entities would operate under the simplified tax system.

> ANY COMPLICATION OF THE SIMPLIFIED TAX SYSTEM AND ACCOUNTING IS DETRIMENTAL TO THE DEVELOP MENT OF MICRO-BUSINESS IN THE COUNTRY

[23] V. Dubrovsky (2020) *Simplified System: Do Not Delete but Modify*. Available [online]: https://zn.ua/business/uproschenka-ne-unichtozhat-no-usovershenstvovat-342430_.html

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OKSANA KUZIAKIV

Executive Director at the Institute for Economic Research and Policy Consulting in Kyiv, Ukraine. An expert in the fields of public policy and project management, her research interests focus on business tendency studies, structural reforms, SME development, and designing survey-based assessments of the business climate at the national and regional levels

What Do Good Taxes Look Like (in CEE)?

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ALEKSANDER ŁASZEK

Taxes come in different forms and shapes. Regardless, they all have certain consequences. The discussion about what is the optimal size of the state, and which public expenditures are justified and beneficial never tires. Some argue for minimal state focused only on protecting the lives and property of its citizens from external and internal aggression, while others dream of a huge welfare state. There are also many voices in-between arguing in favor of introducing public benefits for education or basic safety, while at the same time criticizing overblown social transfers. No matter the size of the government, it needs to be funded somehow, and it can be done in different ways, but nearly always taxes will be the main source of financing and different taxes will have different effects, as discussed by Tomasz Kasprowicz.

Well-designed taxes should fulfill several criteria, true, but most of all they should never cause unnecessary distortions in economy. The question of how to construct a tax system is not new – Adam Smith considered that problem many years ago. In *The Wealth of Nations* he pointed out that taxes should follow four principles:

- ***fairness*** – taxation should be compatible with taxpayers' conditions, including their ability to pay in line with personal and family needs;
- ***certainty*** – taxpayers should be clearly informed about why and how taxes are levied;
- ***convenience*** – the process of paying and collecting taxes should be as easy as possible;
- ***efficiency*** – the administration of tax collection should be so contrived as to take out of the pockets as little as possible, over and above that which it brings into the public treasury of the state[1].

These rules are still valid today, although they need to be further specified. We should remember that the starting point for the designing of a tax system is the desired amount of tax revenue and the level of redistribution built into the system. Typically, much more emphasis is currently put on efficiency - from the growth perspective, taxes should be designed in such a manner that harms economic activity as little as possible. The majority of economists would agree that in order to fulfill those criteria, taxes should be neutral, simple, and stable.

A neutral tax system is one that treats similar activities in similar ways. Such a design minimizes distortions – people choose among similar alternatives according to their preferences and not tax differences. It also limits the number of disputes between administration and taxpayers about which rate should be applied.

The examples from Ukraine and Poland discussed by Oksana Kuziakiv and me in the presented issue of *4liberty.eu Review* illustrate the risks of non-neutrality, when dif-

> NO MATTER THE SIZE OF THE GOVERNMENT, IT NEEDS TO BE FUNDED SOMEHOW

[1] Smith, A. (1776) *The Wealth of Nations*, London: W. Strahan and T. Cadell. Available [online]: xxaxa

> WELL-DESIGNED TAXES SHOULD FULFILL SEVERAL CRITERIA, TRUE, BUT MOST OF ALL THEY SHOULD NEVER CAUSE UNNECESSARY DISTORTIONS IN ECONOMY

ferences in tax regimes distort choices, creating preferences for some contracts over others. Of course, sometimes neutrality is not desirable – as the article by Radovan Durana of INESS on carbon taxes shows; here, taxes are purposefully designed in such way so that they dissuade people from certain activities or goods.

Intuitively, *simplicity* sounds like a desirable feature of a tax system, but it is much harder to achieve than it may seem. When it comes to the taxation of labor, the overall tax burden (tax wedge) is usually a mixture of different levies – including both taxes and different contributions. Sometimes those are just different in name, but in many cases social security systems are constructed in such a way so that future benefits are proportional to the paid contributions. Even in such systems, the things that have the biggest impact on the actions of both employers and employees is the overall burden, as we can see in the article by Admir Čavalić on Bosnia and Herzegovina.

Taxation of capital is not much easier – sometimes it is difficult to distinguish between capital and labor income – as, for example, is the case of the self-employed. The problem of coordination of taxes and social security contributions in such cases is described in the article by Latchezar Bogdanov, who discusses wider taxation trends in Bulgaria. Even in straightforward cases, where CIT applies, deciding what constitutes an eligible cost can be complicated, but so are modern economies. As discussed in Aleksy Przybylski's article, alternatives like the turnover tax only sound alluring, while in practice, they would create harmful distortions.

The stability of a tax system is desirable, as it limits uncertainty for citizens and encourages them to focus on long-term investment. Although the majority of policymakers and politicians agree with this approach, the temptation to introduce new taxes and levies is still rampant. The recent worrisome trend in CEE is an attempt to introduce sectoral taxes, usually targeted at the sectors with large international players present, like banking – such a case is presented in the article on the situation in the Czech Republic, written by Michael Fanta. But there are also brighter spots, as much more predictable excise taxes described by Šárka Prát. Although, as the author indicates, there is still some room for improvement, these

> TAXES SHOULD BE NEUTRAL, SIMPLE, AND STABLE

> THE STABILITY OF A TAX SYSTEM IS DESIRABLE, AS IT LIMITS UNCERTAINTY FOR CITIZENS AND ENCOURAGES THEM TO FOCUS ON LONG-TERM INVESTMENT

taxes constitute a stable source of revenue for the Czech Republic.

The collection of the same amount of taxes from taxpayers can have varying impact on the economy. By sticking to the rules of neutrality, simplicity, and stability we can finance public expenditure, while minimizing the negative impact of taxation on economic activity.

Tax systems in CEE countries have their bright spots, like for example higher reliance on less distortive consumption taxes than income taxes, but there is still some room for improvement. Such reforms should be pursued, despite the enormous success of the last thirty years, our region is still poorer than its Western counterparts.

Furthermore, recent turmoil caused by the outbreak of the COVID-9 will most likely seriously hit CEE economies, leaving public finances with additional debts, and companies rethinking their supply chains. Therefore, after the pandemic is over, all ideas of how to restart and boost economic growth will be valuable. Still, all changes must be introduced with caution, after conducting a thorough analysis of any potential side effects.

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ALEKSANDER ŁASZEK

PhD, Chief Economist at the Civil Development Forum (FOR) his research focuses on long-term economic growth

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Free Market Foundation (Hungary) is a think tank dedicated to promoting classical liberal values and ideas. The organization's projects focus on advocating a free market economy and fighting racism. The Foundation's activities involve education, activism, and academic research alike, thus reaching out to different people.

Liberální Institut (Prague, Czech Republic) is a non-governmental, non-partisan, non-profit think tank for the development, dissemination, and application of classical liberal ideas and programs based on the principles of classical liberalism. It focuses on three types of activities: education, research, and publication.

The Lithuanian Free Market Institute (Vilnius, Lithuania) is a private, non-profit organization established in 1990 to promote the ideas of individual freedom and responsibility, free markets, and limited government. The LFMI's team conducts research on key economic issues, develops conceptual reform packages, drafts and evaluates legislative proposals, and aids government institutions by advising how to better implement the principles of free markets in Lithuania.

The F. A. Hayek Foundation (Bratislava, Slovakia) is an independent and non-political, non-profit organization, founded in 1991, by a group of market-oriented Slovak economists. The core mission of the F. A. Hayek Foundation is to establish a tradition of market-oriented thinking in Slovakia – an approach that had not existed before the 1990s in our region.

IME (Sofia, Bulgaria) is the first and oldest independent economic policy think tank in Bulgaria. Its mission is to elaborate and advocate market-based solutions to challenges faced by Bulgarians and the region face in reforms. This mission has been pursued sine early 1993 when the institute was formally registered a non-profit legal entity.

The Academy of Liberalism (Tallinn, Estonia) was established in the late 1990s. Its aim is to promote a liberal world view to oppose the emergence of socialist ideas in society.

INESS (Bratislava, Slovakia), the Institute of Economic and Social Studies, began its activities in January 2006. As an independent think tank, INESS monitors the functioning and financing of the public sector, evaluates the effects of legislative changes on the economy and society, and comments on current economic and social issues.

Projekt: Polska (Warsaw, Poland) comprises people who dream of a modern, open, and liberal Poland. It is those to whom a democratic, effective, and citizen-friendly government is a key goal, and who help accomplish this goal while enjoying themselves, forming new friendships, and furthering their own interests.

Liberales Institut (Potsdam, Germany) is the think tank of the Friedrich Naumann Foundation for Freedom dedicated to political issues such as how liberalism can respond to challenges of the contemporary world and how liberal ideas can contribute to shaping the future.

Fundacja Liberté! (Lodz, Poland) is a think tank created in Łódź in 2007. Its mission is to promote an open society, liberal economic ideas, and liberal culture, and to organize a social movement around these ideas. Among the foundation's most recognizable projects are: Liberté!, Freedom Games, 6. District. The foundation is coordinating the 4liberty.eu project on behalf of Friedrich Naumann Foundation.

Republikon Institute (Budapest, Hungary) is a liberal think tank organization based in Budapest that focuses on analyzing Hungarian and international politics, formulating policy recommendations, and initiating projects that contribute to a more open, democratic, and free society.

Civil Development Forum (FOR) (Warsaw, Poland) was founded in March 2007 in Warsaw by Professor Leszek Balcerowicz as a non-profit organization. Its aim is to participate in public debate on economic issues, present reliable ideas, and promote active behavior. FOR's research activity focuses on four areas: less fiscalism and more employment, more market competition, stronger rule of law, and the impact of EU regulations on the economic growth in Poland. FOR presents its findings in the forms of reports, policy briefs, and educational papers. Other projects and activities of FOR include, among others, Public Debt Clock, social campaigns, public debates, lectures, and spring and autumn economic schools.

Visio Institut (Ljubljana, Slovenia) is an independent public policy think tank in Slovenia. Aiming for an open, free, fair, and developed Slovenia, the Visio Institut is publishing an array of publications, while Visio scholars regularly appear in media and at public events.

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The Institute for Economic Research and Policy Consulting (Kiev, Ukraine) is a well-known Ukrainian independent think tank, focusing on economic research and policy consulting. IER was founded in October 1999 by top-ranking Ukrainian politicians and scientists, and a German advisory group on economic reforms in Ukraine, which has been a part of Germany's TRANSFORM program. Its mission is to provide an alternative position on key problems of social and economic development of Ukraine.

Svetilnik (Ljubljana, Slovenia) is a non-profit, non-governmental, and non-political association. Its mission is to enlighten Slovenia with ideas of freedom. The goal of the association is a society where individuals are free to pursue their own interests and are responsible for their actions.

New Economic School – Georgia (Tbilisi, Georgia) is a free market think tank, non-profit organization, and NGO. Its main mission is to educate young people in free market ideas. It organizes seminars, workshops, and conferences for education and exchanges of ideas. NESG was founded by Georgian individuals to fill the knowledge gap about the market economy in the country and the lack of good teachers and economics textbooks.

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