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UEARS

Union of Employers' Associations of
Republika Srpska

SALARY

**TAXATION OF WAGES
AND THE INFORMAL ECONOMY**



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Executive Summary

High rates of taxation of labour create financial “incentives” to informal employment, which is one of the key elements of the informal economy. When a worker is not registered as employed (working “off the books”) the payment of all fiscal and para-fiscal obligations related to this employment is avoided, primarily income tax and contributions. If the worker is registered but receives the part of the wage “in envelope” (working “in the gray”) the payment of a portion of these obligations is avoided.

The negative consequences of informal employment are numerous and include a weakening of the public revenue, the impact on the conditions and quality of work, violation of fair competition among enterprises, reducing the use of standard forms of labour and increasing social discontent. **The negative impact of the informal employment was most pronounced in the case of low-paid workers** because usually this leaves workers without health care, pension and unemployment insurance.

The tax burden on labour expressed as a share of the tax wedge in the average wage in Republic of Srpska amounts 38, 5%. This means that out of every 100 KM allocated to the cost of gross wage in the formal sector it is necessary to set aside on average 38,5 KM for payment of taxes and contributions, and the recipient receives the rest (net) of the wage. **This represents a significant increase in the tax wedge in relation to 2008** and earlier (period before the onset of the economic crisis), which makes Republic of Srpska to exceed the average of *OECD* countries and closer to the average in the EU.

Generally, the EU is an area of high labour tax burden compared to other developed economies, thus in the Europe 2020 strategy it was highlighted “... to avoid raising taxes on labour that impose high costs for jobs, as it was done in the past period”. A number of EU countries in the previous period did take steps towards reducing taxes on labour, and some of them embarked on a reform process with a very high initial level of tax rates. One of such countries, taken as an example in this report, is France, since it had a long socio-political tradition related to the high labour taxation, yet in the longer term it recorded low employment rates of young and older workers and high rates of long-term unemployment. Ireland is an example of a country with lower labour taxes with highly progressive character, therefore low wages are further tax expanded.

In Republic of Srpska progressivity of labour taxation is relatively low, which means that low wages do not report significant relief. The tax wedge for a salary amounting to 67% of the average wage is 37,7%, which is just 1,35 percentage points less than in the tax wedge for a salary amounting to 167% of the average wage.

Research on the extent of the informal employment gave different results, one of which from the last year gave the estimate that about 35% of employees in Republic of Srpska is working “off the books”, of which the largest number is concentrated in agriculture. When it comes to work “on the gray”, more than 36.000 employees was reported for the lowest salary of 370 KM, and in this group there is a good portion of those to whom the second part of the salary is paid “on hands”.

Employers in Republic of Srpska identify the amount of taxes and contributions on wages as one of the biggest problems for business in the formal sector and believe that it is necessary to reform in this area as soon as possible. Here we can single the views of representatives of the sector of textile, leather and footwear who are satisfied with the current system of labour taxation, due to the fact that since 2011 for workers in this sector the basis for the calculation of contributions is determined in a special way, which enabled reduction of obligations in this regard. Strong employment growth in the sector of leather and leather products in the period after that suggests that this change may have contributed to this increase.

A considerable number of international researches also ranked taxes and contributions on earnings among the main causes of the existence of the informal economy. Accordingly, it is suggested that the reduction in labour taxation increases the rate of employment in the formal sector and provides better recoverability of tax.

However, there are several other factors that influence the presence of informal labour in an economy. These factors include the compliance of overall regulations in this area, the quality of control bodies, the affordability of the general business conditions and the level of unemployment and economic growth.

Moreover, it is necessary to mention the great importance of perception of society about the justification of the given amount of tax burden and the quality of services provided by the public sector. The lowest rates of informal employment in the countries of the northern Europe highlight the importance of development of social trust in the public sector. Therefore, it is not difficult to conclude that a unilateral insistence on repressive measures will not bring optimal results in terms of reducing the informal economy.

The following recommendations are defined:

- ▶ Determine the tax wedge in Republic of Srpska at the level from 2008 (when it amounted 32,7% on the average wage) or lower.
- ▶ Design reduction of the tax wedge in such a way that it shall be most pronounced in low incomes.
- ▶ Strengthen the quality of the work and the independence of the control bodies.
- ▶ Develop additional incentives to move from the informal to the formal sector.
- ▶ Strengthen social responsibility and awareness of all stakeholders about the negative consequences of labour in the informal sector.
- ▶ Support this process through a comprehensive campaign of strengthening fiscal accountability and transparency of the public sector.
- ▶ All the above stated measures need to be implemented in the package.

Projections of income after the simulated reduction of the tax wedge (in Chapter 7) demonstrate how the income effect of this measure shall depend on its impact on additional employment in the formal sector. Several reasons suggest that this effect in Republic of Srpska would have the potential to be relatively high if the above suggestions are implemented in the package: Republic of Srpska currently has extremely low employment rate, relatively high tax wedge, high level of informal economy and the prevailing perception of the business sector on insufficient quality of work of inspection bodies.

In terms of financial feasibility of the proposed reforms, the potential **possibility of obtaining assistance from international financial institutions that would be interested to support this or similar package of measures** should be noted. As an example we mention that the World Bank identified reduction of social contribution rates as one of the goals of the First program loan for development policies for public consumption for BiH.

Recommendations

Based on the findings of the conducted study the following recommendations were developed:

- 1. Determine the tax wedge in Republic of Srpska at the level from 2008 (when it amounted 32,7% on the average wage) or lower.** Previous researches have shown that possible further reductions of the tax wedge of small volume will not change the international position of Republic of Srpska in terms of the amount of labour taxation and may have significantly lower positive effect on employment in the formal sector.

Examples of European countries show that significant reduction of the tax wedge can be done in different ways. One possibility is that the costs of a certain public fund are financed from general taxation, rather than from contributions, thus reducing the pressure on the taxation of income. For example, Ireland and Spain provide means for public funds for health care from general taxes, and in 2006 Albania reduced rates of contributions for a total of 9 percentage points¹.

- 2. Design reduction of the tax wedge in such a way that it shall be most pronounced in low incomes,** since the potential positive effects on employment in the formal sector and exit from the informal sector are highest for this group.

This would partly be achieved by increasing the threshold for income taxation, for example, to the level of the minimum wage. Another way, which can be applied in combination with the first one, is to create an additional tax relief for those groups who are in the most difficult position in the labour market, for example young, unskilled persons and single parents.²

- 3. Strengthen the quality of the work and the independence of the control bodies.** This primarily refers to the improvement of efficiency in identifying and sanctioning informal work (work “off the books” and “in the shadow”), and on selective removal of (unequal) treatment of companies, to what employers have complained in the previous survey. Measures that would contribute to these objectives are:

- ▶ To introduce the practice of establishing and publishing of clear annual goals at the level of the control institutions (especially of the Inspectorate of RS and RS Tax Administration) in all segments that are to be achieved through control activities on an annual basis, and report on performance in relation to the set objectives.
- ▶ Create a framework for full coordination of the work of control institutions and information exchange modelled on examples from other countries.
- ▶ Improve the internal control mechanisms and develop effective channels for reporting corrupt conduct of officials of control institutions. On the other hand, it is necessary to have quality mechanisms to protect employees from exposure to various forms of pressure inside and outside the institutions.

- 4. Develop additional incentives to move from the informal to the formal sector.** These are measures that are not focused on increasing sanctions, but on increasing the benefits of operating in the formal sector. Some of these measures implemented in other countries are:

¹ World Bank, 2007, “Fiscal Policy and Economic Growth – Lessons for Eastern Europe and Central Asia”, pg. 304.

² Note that for certain groups in Republic of Srpska, such as disabled and workers in the leather and textile industries, there are already special forms of tax relieves in this regard.

- ▶ Exemption from the obligation of payment of contributions on the wage regarding employment of new workers who belong to a particular group. For example, these may be unemployed who have been registered as such in a certain minimum duration. If the employer has no right on reduction of the number of employees in the period in which s/he do not pay contributions for the person s/he hired due to this measure, in any such employment positive effects on public finances are generated.
- ▶ Simplification of procedures related to registration of workers, payment of taxes and contributions and other obligations related to workers in the formal sector. Here we can mention the possibility of establishing full communication with the control institutions electronically.
- ▶ Introduction of “amnesty period” during which it is necessary to report all informally employed persons and during which control institutions provide advisory support on the most effective ways to do this and do not penalize the applied ones. After the expiry of the amnesty period apply enhanced controls.
- ▶ Introduction of specially simplified schemes for the reporting of employees (example via SMS message) and the payment of related duties in a fixed amount for a certain group of seasonal jobs, for example in agriculture.

5. Strengthen social responsibility and awareness of all stakeholders about the negative consequences of labour in the informal sector. The main objective of this measure is to reduce the level of tolerance of the society in general towards the informal economy, which increases the perception of direct and indirect costs of doing business in that form through various mechanisms.

In this segment, it is important to strengthen the awareness and consciousness of employees about the impact of their status (reported or unreported, reported to the minimum or full payment) on the possibility of exercising their rights, primarily pensions and the impact on its amount.

In some countries the control authorities applied the access of sending the letters to the “suspicious” companies in selected sectors (identified on the basis of certain indicators). The letters indicated the problems associated with informal employment and announced inspection visits, which were made in companies that have not changed their behaviour or could not adequately explain it. In Estonia, for example, companies that were subject to this treatment have increased the number of registered employees and the amount of reported wages.³

6. Support this process through a comprehensive campaign of strengthening fiscal accountability and transparency of the public sector in order to strengthen citizens’ confidence in the entire system. In this sense, it is of great importance to promote activities in the field of fight against corruption and to eliminate forms of abuse of public revenues and the “profligacy” of public institutions. Responsible and well-defined policies of determining wages and employment levels in the public sector should certainly be a part of this campaign.

7. All the above stated measures need to be implemented in the package. The reason for this is the expected synergy effect on the reduction of various forms of informal employment and the growth of the tax base following the reduction of the tax wedge. Favourable macroeconomic conditions and efficient active employment policies at the beginning of the implementation of this package would also contribute to increase of employment in the formal sector and thus the growth of public revenues.

³ Eurofund, 2013, “Tackling undeclared work in 27 European Union Member States and Norway – Approaches and measures since 2008”.

Introduction and Methodology

The aim of this report is to support the efforts of the Union of Employers' Associations of Republic of Srpska (UEARS) to address the key causes of the informal economy and to offer in this sense the reform recommendations based on evidence. Author of the report is the Centre for Research and Studies GEA from Banja Luka, a creation was funded by the International Labour Organization (ILO).

The term "informal economy" refers to all economic activities by workers and economic units that, in law or practice, are not or are insufficiently covered by formal arrangements. Their activities are not included in the law, which means that they work outside the formal reach of the law; or are not covered in practice, which means that though they work under formal reach of the law, the law is not applied or not enforced; or the law discourages compliance being inappropriate, burdensome, or imposes excessive costs.

In the previous survey, which was conducted in 2015, the employers in Republic of Srpska identified the high fiscal and para-fiscal levies, which are primarily manifested through high labour taxation, as one of the key causes of the existence of the informal economy.⁴ Accordingly, this report focuses on the relationship between the labour taxation and the informal economy. Specifically, this report addresses the issue of the relationship between the amount of the rate of labour taxation and informal employment. Two basic emanation of informal employment are working "off the books" (when employees are not registered) and "work in the shadow" (when employees are registered, but the part of the salary is paid "in envelope").

The first step in this research was to organize three focus groups with employers from Republic of Srpska from various sectors in order to hear their opinions on the links between the labour taxation and informal employment. Along with maintaining focus groups, the secondary research was conducted based on relevant publications and data of the World Bank, the *OECD*, the European Commission, the ILO and other international and national institutions.

The Chapter 1 speaks about the terms "labour taxation" and "informal employment" and explains the mechanisms of their mutual influence. The review of the structure and the movement of the amount of labour taxation in Republic of Srpska is given in Chapter 2, while estimates of the volume of informal employment are in Chapter 3. Views of the employers on this topic are summarized in Chapter 4. The findings on the impact of labour taxation on informal employment in European countries are given in Chapter 5, while Chapters 6-9 describe cases in which countries where occurred or occur significant reforms in this area: Republic of Ireland, Slovakia, Czech Republic and France. Chapter 10 provides with the projections of the impact of reducing the rate of health insurance contributions by 1 percentage point on public revenues using different assumptions on the amount of the effect of this measure on the employment growth (this measure is provided here only as an instance).

Summary of main findings and recommendations is at the beginning, while the recommendations are explained in more details immediately afterwards.

⁴ Centre for Research and Studies GEA, 2015, "Informal Economy in Republic of Srpska – causes and recommendations".

1. How the labour taxation affects the informal employment?

1.1. About informal employment: concept, causes and consequences

According to recommendations of the International Labour Organisation (ILO) concerning the transition from the informal to the formal economy adopted in June 2015⁵, the term “informal economy” refers to “all economic activities by workers and economic units that operate legally or within their practice, but are not covered or are insufficiently covered by the formal arrangements”. This study focuses on an important appearance form of the informal economy – informalemployment – and it examines the correlation between the level of labour taxation with this phenomenon.

Despite the extensive literature there is no universally accepted definition of informal employment. According to one of the definitions the informal employment, which is also called undeclared, concealed or work off the books, can be broadly described as the work on the production and supply of legal goods and services in which one or more regulations regarding employment were not met.⁶ According to the European Commission, undeclared work represents “any gainful activity that is in accordance with the law by its nature, yet its performance was not reported to public authorities, taking into account all the differences of the regulatory systems of EU members.”⁷ Informal employment is usually manifested through failure to declare employees (working “off the books”) or through the payment of a portion of a wage “in envelope” (work “in the shadow”).

To measure the size of the informal economy a percentage of GDP is usually taken.⁸ When speaking of informal employment, some studies are concentrated on the share of total employment in informal activities. Since this is informal employment, usually there are no reliable macro data. However, the micro-data can be used to examine different forms of informal employment. Working with data at the micro level is based on different alternative variables to informal employment, for example: non-coverage of social protection, lack of self-employment or work in micro firms.⁹ In most cases, in developed countries the informal economy is represented to a lesser extent compared to other countries.¹⁰

Based on the findings reported in the scientific literature in this area, the most common reasons for the informal employment are:

- ▶ Situations where there are not enough vacancies in the formal sector and when undeclared work is practically the only way for individuals to come to work. The lack of jobs in the formal sector can be caused by low demand for labour force, for example due to a weak economic growth, structural problems in the labour market and poor regulatory arrangements in the formal sector.
- ▶ Another reason may be that informal employment may reduce the financial costs to the employer and /

5 Text available at: http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:R204.

6 OECD, 2008, “OECD Employment Outlook”.

7 European Commission, 2015, „European Semester Thematic Fiche Undeclared Work“.

8 For instance, Schneider, F. and EnsteD., 2000, “Shadow Economies: Size, Causes, and Consequences”.

9 For instance, Bernabe, S., 2002, “*Informal Employment in Countries in Transition: A Conceptual Framework*”; Gasparini, L. i Tornarolli L., 2007, “*Labor Informality in Latin America and the Caribbean: Patterns and Trends from Household Survey Microdata*”; Loayza, N. and J. Rigolini 2006, “*Informality Trends and Cycles*”.

10 Perry, G., Maloney W., Arias O., Fajnzylber P., Mason A. i Saavedra-Chanduvi J., 2007, “*Informality: Exit and Exclusion*”.

or to bring higher net earnings to the employee. If it is not sanctioned, this leads to a drop in employment in the formal sector. High taxes and other regulations for the formal sector are often the main reason why companies and individuals transfer their activities in the informal sector or report only one part of the revenue.

- ▶ Control institutions sometimes have not enough trained personnel and adequate technical conditions or staff lacks the will to apply the law as a result of corruption or lack of independence in the work. At the same time, it is important to emphasize that tightened sanctions (if based on inadequate regulations or applied selectively) can have a double effect. That can make some companies to respect the laws, and some to stop working or to move to the shadow zone. According to *Leibfritz*, in addition to its objective of increasing tax collection, tax administration must take into account its role as a provider of services for those who pay taxes, so that they could fulfil their obligations at no additional cost.¹¹
- ▶ Unfavourable business conditions, such as high market barriers for entry of new companies, inadequate law application, high administrative costs for existing companies, as well as widespread corruption, reduce the creation of regular jobs and increase the costs of moving from informal to formal activities.¹²
- ▶ The poor quality of government services for which taxpayers believe there is reason to evade their obligations. What is important is the perception of taxpayers, because they will feel less guilty believing that tax revenues are abused, either through corruption or due to incompetence. Numerous empirical studies found that there is a negative relationship between trust in government (and the quality of administration) and taxes.¹³ In their study, *Frey and Torgler* found that it is less likely that the taxpayers would resort to tax evasion if they believe the others settle the liabilities in accordance with the law.¹⁴

Informal employment leads to several negative economic and social consequences. Some of them are:

- ▶ It is a form of tax evasion, which has a negative impact on public finances;
- ▶ Also it affects the working conditions and the quality of jobs, weakens opportunities for lifelong learning with implications for potential growth in the long term;
- ▶ It distorts competition among companies, creating unfair competition to enterprises that do not practice work in the gray zone;
- ▶ It causes inefficiency in the economy by maintaining the operations of companies that otherwise would probably not be able to participate in the market;
- ▶ It is usually characterized by poor working conditions, shortcomings in terms of health and safety regulations, lower wages and lack of social security;
- ▶ Reorientation of one part of the population towards sectors where informal employment is the most widespread (for instance housework and home-care services);
- ▶ Reduced use of standard forms of work with the growing flexibility of contractual relations and noticeable increase in self-employment, subcontracting and supply of goods and services from third parties;
- ▶ The growth of certain forms of cross-border business, which requires effective international cooperation between supervision bodies and law enforcement;

11 Leibfritz, W., 2011, "Undeclared Economic Activity in Central and Eastern Europe How Taxes Contribute and How Countries Respond to the Problem".

12 Ibid.

13 Slemrod, J., 2007, "Cheating Ourselves: The Economics of Tax Evasion".

14 Frey, B. and Torgler B., 2007, "Tax Moral and Conditional Co-operation".

- ▶ Increasing social discontent, where individuals can try to compensate for losses through informal employment.

1.2. About labour taxation: structure and measurement

- ▶ Generally, the labour tax burden can be divided into two main groups:
- ▶ **salary tax**, which is usually an integral part of the personal income tax;
- ▶ **social security contributions**, which are dedicated form of taxation (for different types of social security/ insurance, such as pension insurance, health care, etc.).

The labour taxation may vary by categories of taxpayers depending on the amount of income generated. For example, those who earn more benefit from ceiling to maximal payments on social security contributions, which are applied in some countries which makes the labour taxation regressive¹⁵. On the other hand, the basic deduction for income tax calculation makes total labour taxation progressive.

One measure of financial incentive for not declaring income is tax wedge. It measures the difference between labour costs to the employer and the corresponding net salary of workers and this includes the salary tax and the social security contribution. Having less professional workers most exposed to the informal sector, the tax wedge on lower incomes is of particular importance for the costs of the transition from the informal to the formal zone. According to Urban, the high social contributions reduce the net wages of workers, but also their incentive to work. Thus, high labour taxation can reduce the availability of labour force in the formal sector and the ability of reproduction of productive capital, which undermines economic growth and improvement of living standard.¹⁶

1.3. Impact of taxation on informal employment: evidence

It is not easy to answer the question to what extent the taxation is the reason for the informal employment. Among economists there are different opinions on how much taxes are important for growth and employment as well as the impact on informal work. This comes as no surprise, since it depends not only on the level and structure of taxation, but also on many other factors – and partly interdependent factors, such as the stage of economic development, the efficiency of institutions, cultural reasons and, finally, whether people believe that tax income are spent on productive or unproductive way. However, as we have seen, by its very definition, the tax wedge is a measure of additional costs related to the registration of the employee. In a formal sense, we can say that high taxes affect informal employment by being able to increase the costs of formal labour and to stimulate employment without declaring (completely or partially). The tax structure, especially taxes on income from self-employment or on gain compared to taxes on income can provide an incentive for not reporting full wages or self-employment on a false charge, while a complicated tax system increases the costs of compliance with the system and encourages tax evasion.¹⁷

According to the OECD, conclusion of various empirical studies is usually that the taxes are transferred to the lower wages only partially, and an increase in the tax wedge increases the labour costs.¹⁸ But, it can be said that there is still no sufficient empirical literature on the relationship of labour taxation and informal employment. In most existing studies the effect of taxes (not just labour taxes) to the overall representation of the informal economy is considered.

¹⁵ There is regressive labour taxation in cases when increase of income reduces the tax burden in percentage terms.

¹⁶ Urban, I., 2009, „Porezno opterećenje rada u Hrvatskoj“ (Labour tax burden in Croatia).

¹⁷ OECD, 2008, “OECD Employment Outlook”.

¹⁸ OECD, 2007, “OECD Employment Outlook”.

In the study *Spiro* found that higher taxes encourage tax evasion, since it makes the financial gain greater. However, the overall effect also depends on the likelihood that the perpetrator would be caught and relative aversion of taxpayers to that risk.¹⁹

Some studies found that reducing labour taxes –with both fixed and progressive rates of income tax –the rate of employment in the formal sector is increased and better recoverability of taxes is achieved. If such a tax reform is part of a package of reforms which would include increase of the efficiency of tax collection and the general framework for business, then it is likely to reduce informal employment. For example, it has been shown that the reduction in fixed-rate tax in Russia led to a significant reduction in the number of informally employed. This reform seems to have the strongest effect on the prevention of illegal activities in the shadow zone. The reduction significantly reduced the percentage of activities in the shadow zone, as well as the percentage of irregularities in the formal business. In general, the impact of this reform had two main directions: increasing rates of transition workers from informal to formal work or slowing departure of workers in the shadow zone.²⁰In a study conducted in 19 countries *Davis and Henrekson* found that high taxes are associated with a higher prevalence of the shadow economy.²¹

In addition to macroeconomic effects in the form of overall growth and employment, taxation more directly affects the undeclared work at the micro level. Through the microeconomic approach a connection between high labour taxes and formal employment was established. For instance, in his research, on the basis of information about city of Québec, *Lemieux al.* reached the conclusion that taxes displace the activities of the labour market from the formal sector to the gray zone.²²By analysing data at the level of companies in Colombia, *Kugler and Kugler*²³found that about 50% of significant increase in income tax has been transferred to the lower net wages, which resulted in a lower rate of formal employment, meaning that it has a particularly large influence on the category of low-incomes.

According to many researchers in this field, the tax burdens and social contributions are among the main causes of the existence of the shadow economy. Some of them are *Thomas*²⁴, *Lippert and Walker*²⁵, *Schneider*²⁶, *Johnson, Kaufmann and Zoido-Lobaton*²⁷, *Tanzi*²⁸, *Giles*²⁹, *Mummert and Schneider*³⁰ and *Dell'Anno*³¹.

Companies and workers in the formal sector can work together on tax evasion in order to cope with the strong market competition (survival in relation to compliance) and declare only a part of the salaries, which is especially the case if we have a combination of high taxes on personal income and low taxes on capital gains. Although low tax rates on capital in relation to the work can stimulate growth, if the application of the law is weak, significant gaps in taxation of labour and capital may encourage reporting lower wages.³²*OECD*³³ and *Grubb et al.*³⁴ claim that the provision

19 Spiro, P.S., 2000, "Taxes, Deficits, and the Underground Economy".

20 Slonimczyk, F., 2011, "The Effect of Taxation on Informal Employment: Evidence from the Russian Flat Tax Reform".

21 Davis, S. and M. Henrekson, 2004, "Tax Effects on Work Activity, Industry Mix and Shadow Economy Size: Evidence from Rich-Country Comparisons".

22 Lemieux, T., B. Fortin and P. Fréchette, 1994, "The Effect of Taxes on Labor Supply in the Underground Economy".

23 Kugler, A. and Kugler M., 2003, "The Labor Market Effects of Payroll Taxes in a Middle-Income Country: Evidence from Colombia".

24 Thomas, J.J., Harvester/Weatsheaf, 1992, "Informal Economic Activity".

25 Lippert, O. and Walker M., 1997, "The Underground Economy: Global Evidences of its Size and Impact".

26 Schneider, F., 2009, "Size and Development of the Shadow Economy in Germany, Austria and Other OECD Countries: Some Preliminary Findings".

27 Johnson, S., Kaufmann D. and Zoido-Lobaton P., 1998a, "Regulatory Discretion and the Unofficial Economy".

28 Tanzi, V., 1999, "Uses and Abuses of Estimates of the Underground Economy".

29 Giles, D.E.A., 1999, "Measuring the Hidden Economy: Implications for Econometric Modelling".

30 Mummert, A. and F. Schneider, 2001, "The German Shadow Economy: Parted in a United Germany?"

31 Dell'Anno, R. and F. Schneider, 2003, "The Shadow Economy of Italy and other OECD Countries: What Do We Know?"

32 Johansson, A., Heady, C., Arnold, J., Brys B., i Vartia L., 2008, "Taxation and Growth".

33 OECD, 2004, "OECD Employment Outlook".

34 Grubb, D., J.-K. Lee and P. Tergeist, 2007, "Addressing Labour Market Duality in Korea".

of reporting employee wages is most efficiently carried through the “top-down”, with the efforts of tax authorities to uncover the business incomes and tax structure with progressive taxation of income from work and relatively high profits taxation.

The existence of greater capacities to detect and control, a certain degree of progressivity and balanced level of taxation of capital in relation to labour taxes is likely to encourage the reporting of full salaries. As claimed by *Slemrod* and *Yitzhaki*, the optimal level of progressivity of taxes should be assessed together with the capacity of the administration to enforce the law.³⁵

Using the model of efficiency-wage, *Goerke* finds that the increase of progressivity of the tax in circumstances when there are opportunities for tax evasion causes an increase in tax evasion, but also in employment.³⁶ On the basis of empirical evidence on the reduction of tax evasion in the United States from 1947 to 1981, *Crane and Nourzad* found that the average tax rate is inversely proportional to evasion, while the marginal tax is directly proportional to evasion.³⁷

Informal employment and partly declared work do not happen only in the case of low-paid workers, but their impact is most evident here, because usually this leaves workers without health care, pension and unemployment insurance. This reduces tax revenues and contributions, i.e. sources from which the provision of services by government institutions is financed. Preventing informal and partially declared work through appropriate combinations of taxes and the establishment of adequate control mechanisms is crucial, particularly in developing and transition countries that have relatively weak institutional framework.

However, it is necessary to specify that the European thematic Fiche “Undeclared work” (English *European Thematic Fiche “Undeclared Work”*) for 2015 indicated that a greater impact on the size of the informal economy has the perception of high taxes and costs of compliance with regulations, also the dissatisfaction with the services provided by public institutions of tax collection, as well as the rigidity in the application of rules.³⁸

35 Slemrod, J. i Yitzhaki S., 2000, “Tax Avoidance, Evasion, and Administration”.

36 Goerke, L., 2004, “Tax Evasion, Tax Progression, and Efficiency Wages”.

37 Crane, S.E. i Nourzad F., 1987, “The Treatment of Income Tax Rates in Empirical Analysis of Tax Evasion”.

38 Evropska komisija, 2015, EUROPEAN SEMESTER THEMATIC FICHE UNDECLARED WORK, str. 3-4.

2. Structure and movement of labour taxation in Republic of Srpska

Labour taxation system in Republic of Srpska is defined by a series of laws and bylaws which establish liability, the amounts and methods of payment of personal income tax and the different types of social security contributions. Though social security contributions are not included in taxes in a strict sense, they represent the kind of mandatory payments that burden labour costs in a similar way as the personal income tax and, as such, are an integral part of the total tax wedge. Accordingly, the backbone of the regulatory framework that defines the labour taxation system in Republic of Srpska includes two key laws, the Law on Personal Income Tax and the Law on Contributions. Both these laws, in the previous period, have been subject to frequent changes, indicating a period of strong economic and fiscal turbulence to which the budget and public funds were exposed, but also the absence of a clear vision and a consistent economic policy when it comes to the labour taxation in Republic of Srpska. This is corroborated by the fact that the Law on Personal Income Tax and the Law on Contributions in 2001 experienced more than fifteen amendments where, as a rule, subject to correction were coverage, base or tax rate itself.

Overview of amendments to the Law on Contributions and the Law on Income Tax in Republic of Srpska (2001-2016) chronologically

CONTRIBUTIONS		INCOME TAX
1. Law on Contributions ("Official Gazette of Republic of Srpska" No. 51/01)	2001	1. Law on Personal Income Tax ("Official Gazette of Republic of Srpska" No. 51/01)
2. Law on amendments on Law on Contributions („Official Gazette of Republic of Srpska", No. 96/03)	2002	2. Law on amendments on Law on Personal Income Tax ("Official Gazette of Republic of Srpska" No. 68/01)
3. Law on amendments on Law on Contributions ("Official Gazette of Republic of Srpska" No. 128/06)	2003	3. Law on amendments on Law on Personal Income Tax ("Official Gazette of Republic of Srpska" No. 65/03)
4. Law on amendments on Law on Contributions ("Official Gazette of Republic of Srpska" No. 120/08)	2004	4. Law on Personal Income Tax ("Official Gazette of Republic of Srpska" No. 91/06)
5. Law on Contributions–Consolidated text ("Official Gazette of Republic of Srpska" No. 31/09)	2005	5. Law on amendments on Law on Personal Income Tax ("Official Gazette of Republic of Srpska" No. 128/06)
6. Law on amendments on Law on Contributions ("Official Gazette of Republic of Srpska" No. 1/11)	2006	6. Law on amendments on Law on Personal Income Tax ("Official Gazette of Republic of Srpska" No. 120/08)
7. Law on Contributions("Official Gazette of Republic of Srpska" No.116/12)	2007	7. Law on amendments on Law on Personal Income Tax ("Official Gazette of Republic of Srpska" No. 71/10)
8. Law on amendments on Law on Contributions. ("Official Gazette of Republic of Srpska" No. 103/15)	2008	8. Law on amendments on Law on Personal Income Tax ("Official Gazette of Republic of Srpska" No. 1/11)
	2009	9. Law on amendments on Law on Personal Income Tax ("Official Gazette of Republic of Srpska" No.107/13)
	2010	10. Law on Personal Income Tax ("Official Gazette of Republic of Srpska" No.60/15)
	2011	
	2012	
	2013	
	2014	
	2015	
	2016	

According to the current Law on Personal Income Tax (Official Gazette of Republic of Srpska, number 60/15), which is in force since September 1st 2015, the income tax rate **of personal income is set at 10% of the tax base**. At the same time, the tax base of personal income tax is **reduced by the personal allowance of the taxpayer in the amount of 2.400 KM per year, or 200 KM** at each monthly calculation of the salary.

When it comes to contributions, the changes have been even more significant. The most important change happened in early 2009, when the amendments to the Law on Contributions introduced a new model of calculating contributions to the gross salaries instead of the previous calculation to the net amount of personal income. Changing the calculation was also an introduction to increasing the overall burden on salaries that was increased from the original 33% to 39.7% compared to the gross salary, respectively, from 52% to 65.8% compared to the net salary. The last amendments to the Law on Contributions were made in late 2015 and entered into force in early 2016. According to current legislation cumulative burden of gross salary on the bases of compulsory contributions in Republic of Srpska is 33% and its structure includes:

- ▶ **Contributions for** pension and disability insurance, calculated at the rate of 18.5% in relation to the gross salary;
- ▶ Health insurance contributions, calculated at the rate of 12% compared to the gross salary;
- ▶ Contribution for unemployment insurance, calculated at the rate of 1% of compared gross salary;
- ▶ Contribution for Child Protection, calculated at the rate of 1.5% of compared gross salary.

Table No. 1: Overview of changes in the system of labour taxation in the period 2008 – 2016

PERIOD		2008	2009 –Feb. 2011	Feb. 2011 - 2013	2013-2014	2014-2015	2016
BASE		net	gross	gross	gross	gross	gross
1.	Pension and disability insurance	24%	17%	18%	18,5%	18,5%	18,5%
2.	Health insurance	15%	11,5%	12,5%	12,0%	12,0%	12%
3.	Unemployment insurance	1%	0,7%	1%	1,0%	1,0%	1%
4.	Child Protection	2%	1,4%	1,5%	1,5%	1,5%	1,5%
5.	Non-taxable income	250 KM	300	0	0	200 KM	200 KM
6.	Income Tax	10%	8%	10%	10%	10%	10%
7.	Contribution for solidarity	-	-	-	-	3%	0,4%
8.	TOTAL LOAD ON GROSS PAYMENT	32,7%	34,4%	39,7%	39,7%	40,1%	38,5%

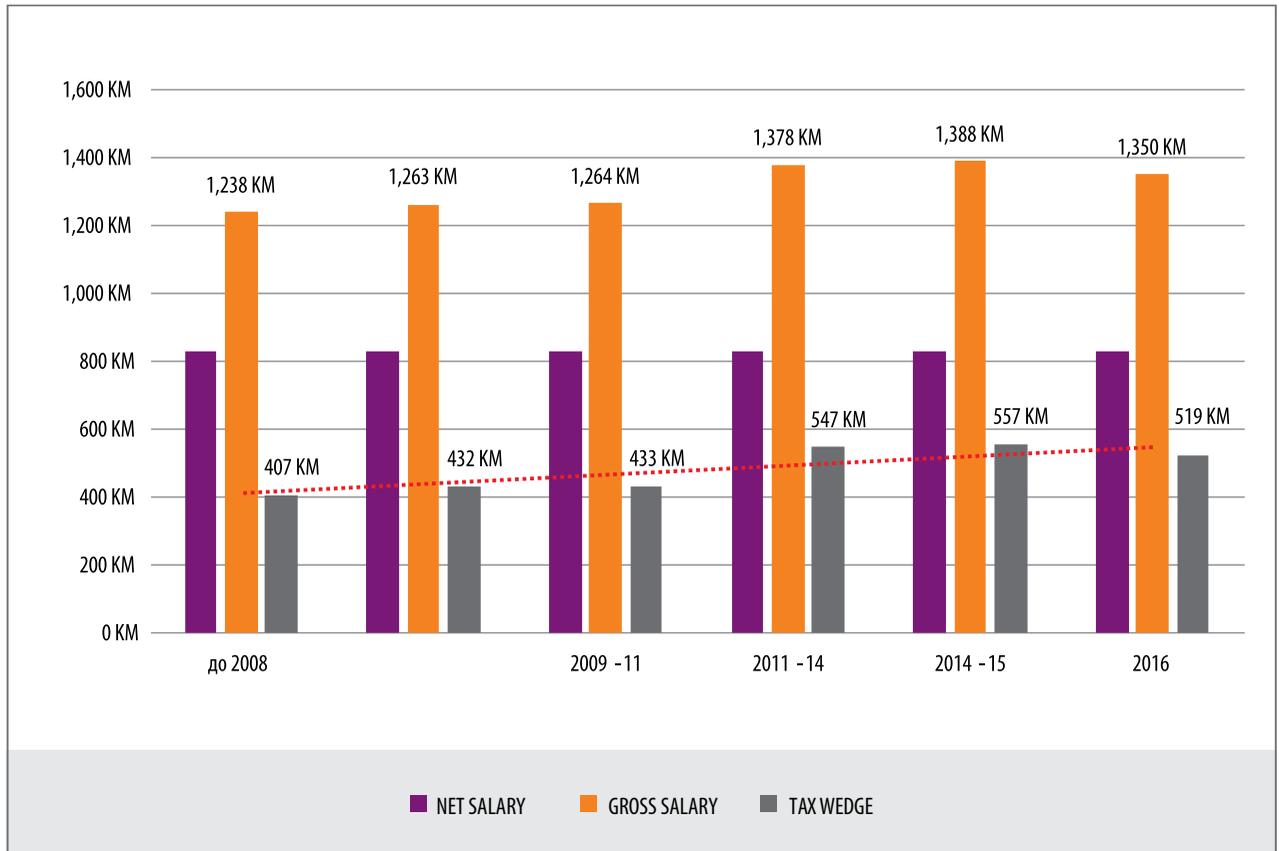
Source: Centre for research and studies GEA, 2015, "Informal Economy in Republic of Srpska – causes and recommendations".

It should be noted that the increase in the total burden on salaries was further contributed by the catastrophic floods of 2014, when the Solidarity Fund in Republic of Srpska was established and **the obligation of payment of the special contribution for solidarity** in the amount of 3% of the net salary of each employee was introduced (*Law on Special contribution on solidarity – Official Gazette of Republic of Srpska No. 52/14*). The obligation of payment of contributions for solidarity has been retained until now, yet the contribution rate was reduced from 3% to 0.4%.

Frequent changes of the key elements in the labour taxation system adversely affected the operations of companies and entrepreneurs in Republic of Srpska. This primarily refers to the increased operating costs due to higher labour costs and additional taxes, but also because of the need for constant alignment with frequent administrative changes in the method of calculating taxes and contributions. To illustrate, if you take the average net salary in Republic of Srpska, which amounted to 831 KM in 2015, and apply for the calculation of taxes and contributions on different calculation models which were in force in the past seven years, it can be seen that the total labour costs con-

stantly increased in the past period, and that the tax wedge is now almost 30% higher than in the period before 2008.

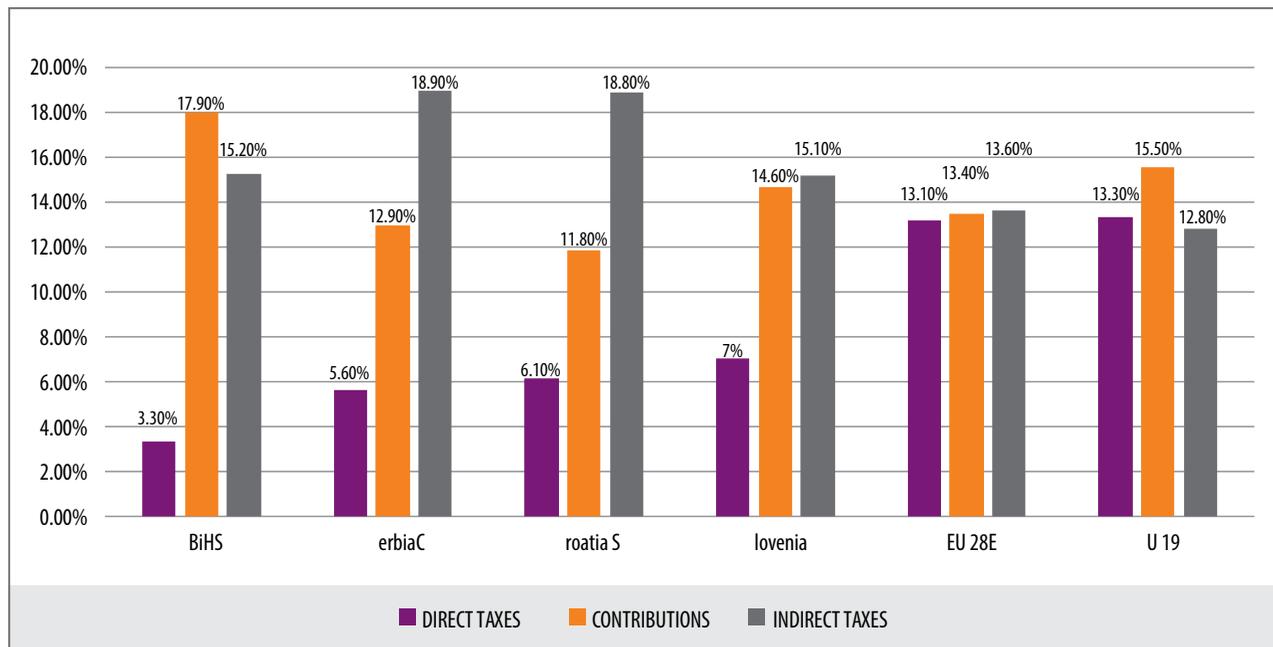
Figure No.1: Labour taxation in Republic of Srpska – burden calculation of net salary based on historical models of calculation



Source: Calculations of the Author.

Understanding the overall burden on salaries requires insight into the structure of the labour taxation, that is, analysis of individual allocations for taxes and contributions, as well as a comparison of these allocations in the international context. If we separate taxes from contributions and observe them through their participation in the GDP, it can be noticed that BiH compared to other countries in the region has similar tax burden, but that burden on contributions differ somewhat more. The difference is more pronounced if BiH is considered in comparison with the European Union, where it can be seen that the EU generates significantly more revenue from direct taxes (partly due to higher tax rates and a stronger base), but that the share of contributions in GDP is less – 13.4% compared to 17.9%, as it was in Bosnia and Herzegovina according to the data for 2014. This suggests that the structure of the labour taxation in the RS and BiH, there is emphasized participation of the contributions in comparison to taxes and that the allocations on this basis were the growth generator of the burden on salaries in the previous period. Accordingly, one of the ways to significantly lower the tax wedge is that allocations for mandatory social contributions are reduced, while costs for individual public funds, such as the Health Insurance Fund and other, are financed (partly or fully) from general taxes, instead from contributions, which would relieve pressure on the labour taxation.

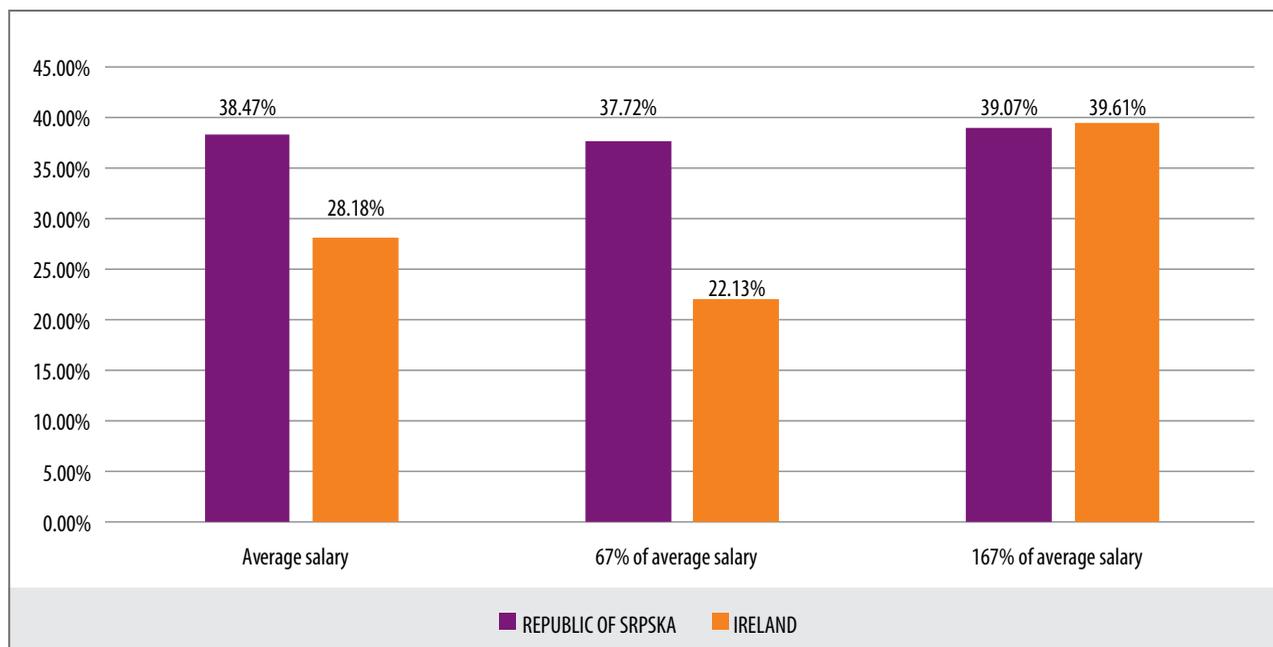
Figure No. 2: Taxes and contributions as a percentage of GDP (in 2014)



Source: OMABilten, April 2016 (Bulletin issued by Macroeconomic Unit of the Governing Board of the Indirect Tax Authority).

Analysis of labour taxation system in Republic of Srpska also points to another important characteristic, which is that the tax wedge is relatively linear (with slight variation due to the determined amount of 200 KM of the threshold) compared to the level of income. If we apply the current model of calculating taxes and contributions to the average salary, a wage reduced to 67% and increased to 167% of the average salary, then it can be seen that the variation of the tax wedge are minimum (from 37.7% to 39.1%), unlike in other countries, such as Ireland, where these differences are more pronounced (from 22.1% to 39.6%).

Figure No. 3: The tax wedge for different amounts of salaries (expressed in % of a gross salary)



Source: European Commission (link: http://ec.europa.eu/economy_finance/db_indicators/tab/), own calculations.

3. Evaluations of the shadow economy of informal employment in Republic of Srpska

The problems of the shadow economy and informal employment are often, as the themes, present in the media. One can often hear and read in the media different statements on the number of workers who work illegally³⁹ or on the share of GDP that is attributed to the shadow economy⁴⁰. On the other hand, the recognised studies that talk about the scope of the shadow economy and informal employment in Republic of Srpska are scarce, so far there were only a few attempts to analytically examine the size of these problems in a quality manner. The reason for this probably lies in the fact that it is a complex phenomenon, primarily because it is not institutionally and legally regulated and, therefore, it requires a specific approach during data collection and analysis. Due to the lack of direct and accurate statistical data the shadow economy is methodologically estimated in different ways. Bearing in mind that the authors use different assessment methods, the range of results obtained is relatively wide, i.e. it varies depending on the selected approach. The last such assessment for Republic of Srpska was done in 2010⁴¹ and it speaks about the extent of the informal economy of 20% of GDP that is 29% in FBiH and 26% in Bosnia and Herzegovina level. It should be noted that this assessment is the result of analysis of gross domestic product that is created by employees in the gray economy sector and the assumptions on the coefficients of labour productivity in the same sector. Accordingly, it is estimated also that the gray economy sector employs around 290.000 people from which about 196.000 in FBiH, around 90.000 in Republic of Srpska, and around 7.000 in Brčko.

Research on the same topic conducted for BiH in the previous period, from 1997 to 2009, speak about a bit higher rate of shadow economy from 26% to 57% of GDP (Tomaš, IMF, Nastev and Bojanec, *Schneider* and other authors), which is a result of different methodological approaches, but also of the fact that the volume of the shadow economy in BiH and RS over the time decreased due to the introduction of value added tax, reforms of direct taxation, Public Procurement Law and stricter legislation. However, the period from 2010 until today remained unexplored so it is difficult to say whether the volume of gray economy is rising or falling in recent years, especially during the economic crisis. Therefore, there is a need, for the purpose of announced struggle to reduce the gray economy, firstly to determine the starting point, i.e. to assess the extent of gray economy in Republic of Srpska and then, using the same methodological approach, to follow the effects of the implemented measures.

When it comes to informal employment, it is important to distinguish that in accordance with the definition of the International Labour Organisation informal employment refers to employment not covered or insufficiently covered by formal arrangements in law or practice. And in that area, as well as for the size of the shadow economy, there are various assessments and studies by several authors. However, research on informal employment is relatively accurate and methodology is more consistent, so the variation in results is lower.

39 "In Republic of Srpska there are currently more than 60.000 people working on the illegal market to provide existence for themselves and/or for their families. These are estimates made by the Director of the Employment Institute of Republic of Srpska" or "The Secretary General of the RS Trade Union pointed out that according to their estimates in the RS there is even 80.000 workers working illegally." <http://www.nezavisne.com/novosti/drustvo/Na-crno-radi-60000-radnika/293731>"

40 "The shadow economy according to all researches flourishes in BiH. The percentage is around 30 percent of GDP and is the largest in the region" (<http://ba.n1info.com/a83804/Vijesti/Vijesti/Isovic-Siva-ekonomija-u-BiH-najveca-u-regionu.html>) or "The Shadow economy in BiH nominally exceeds more than 8.6 milliard KM and makes one third of gross domestic product /GDP/, which is the highest in Europe" (<http://www.nezavisne.com/ekonomija/analize/Siva-ekonomija-This-third-GDP-BH/232.504>).

41 PhD Rajko Tomaš, Professor, 2010, "Križa i siva ekonomija u Bosni i Hercegovini". (Crisis and the shadow economy in Bosnia and Herzegovina)

The latest survey, which gives an estimated informal employment, was done in 2015⁴² and shows that informal employment in BiH is slightly above 25% and that at least 200.000 workers in Bosnia and Herzegovina were not covered by formal arrangements. This assessment was made on the basis of information collected from the Labour Force Survey and authors' calculations (Halilbašić, Domljan, Oruč, Balavac). The same study estimated that informal employment is higher in Republic of Srpska (35.05%) than in the FBiH (22.45%), which is explained by the fact that most of the informal employment is concentrated in agriculture, and in the structure of employment by sectors participation in agriculture is significantly higher in RS, 25.0% compared to 13.7% in FBiH (ARS, 2013). In addition to agriculture, informal employment is mainly related to the construction (11.5%), manufacturing (7.6%), trade (6.1%) and hospitality (hotels and restaurants) (3.4%).

It is important to emphasize that this assessment of informal employment did not include workers to whom a part of the wage is paid in an envelope to reduce the threshold for paying taxes and contributions. Although wages in envelopes can be considered as a part of informal employment, these still differ from the total informal employment by the fact that the worker is registered and accordingly the tax and social security contributions are paid (International Labour Organization, 2011). In Republic of Srpska, according to the Tax Administration, of about 238.000 registered workers more than 36.000 is reported to the minimum prescribed wage of 370 KM and in this contingent is a good part of those who get the other part of the wage paid "in cash". This phenomenon, of course, is equally typical of all employers and sectors, but indicative are the results of primary research of GEA and the Union of Employers' Associations of Republic of Srpska from 2015, according to which more than 45 per cent of the surveyed business subjects in Republic of Srpska believe that there is a practice of payment of wages in envelopes in their sector, while 17 per cent of respondents believe that more than half of their competitors does it.

4. What do employers say?

Linking to the views of employers on informal employment and the payment of salaries in envelopes, it should be noted that the GEA and UEARS during 2015 in the context of the analysis of the causes and forms of the shadow economy in Republic of Srpska⁴³ conducted a primary research among employers about what they see as the main engine of shadow economy. Results of this study showed that employers in Republic of Srpska see the amount of taxes and contributions on wages as one of the biggest problems for business in the formal sector. Even 91.67% of respondents either fully or mostly agreed with the statement that the height of taxes and contributions on salaries are a significant cause of the existence of the informal economy. To decrease this cause appreciably, it is necessary, in the opinion of employers, to reduce significantly the burden on salaries and liabilities for taxes and contributions to the state / government.

In addition to high labour taxation, which undoubtedly creates an incentive for informal employment, in the opinion of employers, a significant role is played by other factors as well. The interviews conducted with representatives of the leather, textile and footwear, construction, trade, tourism and hospitality in the focus groups organized for the purpose of this research, also point to other causes of informal employment including numerous obligations that employers have to workers in accordance with the general and sectorial labour contracts, inflexibility in employment, failure of the educational system to harmonise with the needs of the economy, bad work of the control authorities, etc.

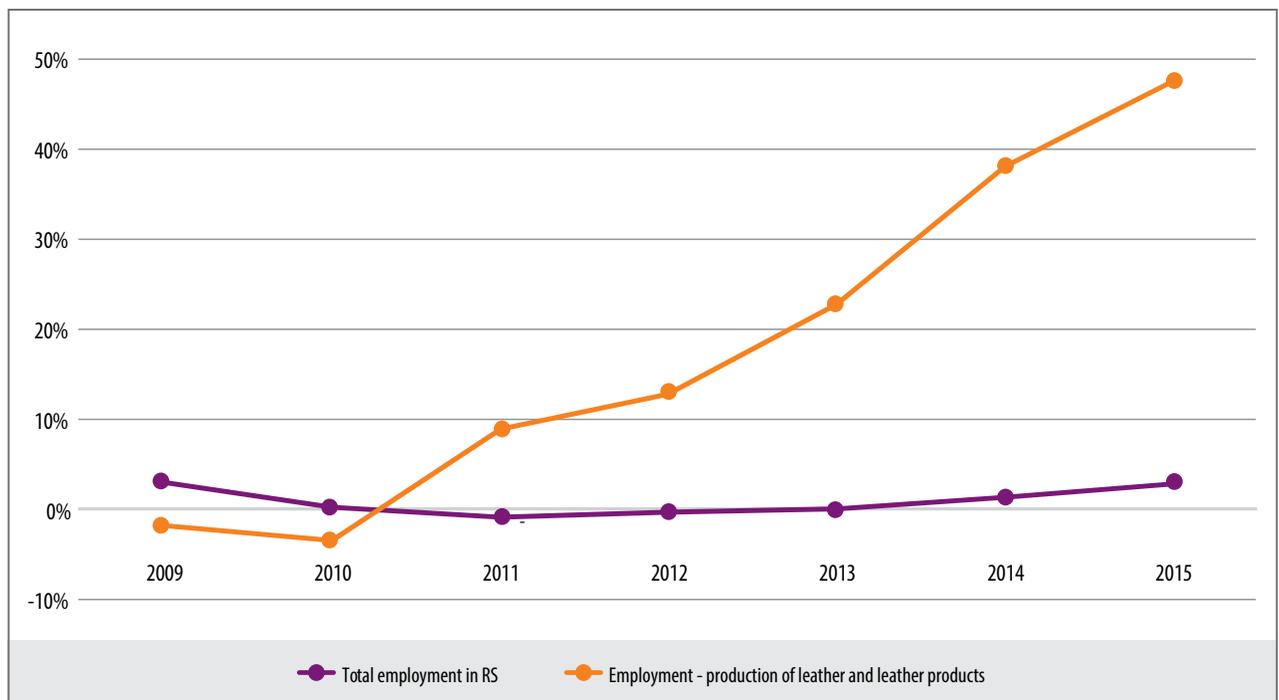
42 Economic Institute Sarajevo, 2015, "Dijagnoza tržišta rada" (Diagnosis of the labor market).

43 Centre for Research and Studies GEA, 2015, "Informal Economy in Republic of Srpska – causes and recommendations".

The representatives of the sectors of construction, trade, tourism and hospitality share a common view that it is necessary, as soon as possible, to reform labour taxation system and to reduce labour taxes which in their view are too high. What may be interesting is the attitude of the representatives of the textile, leather and footwear sector, who do not share fully the views of representatives of other sectors and are satisfied with the way the current system of labour taxation functions. The reason for this lies in the fact that in 2011 the Law on Amendments to the Law on Contributions the contribution base for employees in the field of production of textiles, clothing, leather and leather products, in accordance with the classification of economic activities of Republic of Srpska was set at 25% of the average monthly gross salary, which is significantly lower than in all other sectors.

In the context of this analysis, the comparison was done regarding the employment situation in the sector of textile, leather and footwear before and after the tax base reduction. According to the data of the RS Republic Institute for Statistics, in this sector in 2010 there were a total of 9.160 employees employed, of which majority in the activity of manufacturing leather and leather products: 4.911 workers. Comparative figures for 2015 show that in the same sector a total of 10.785 workers were employed, of which only in production of leather and leather products 7.377 employees, which is 2.466 more workers than in 2010. These growth rates far exceed the growth of overall employment in Republic of Srpska, which can be seen in the Figure below.

Figure No. 4: Changes in employment in the manufacturing of leather and leather products and overall employment in Republic of Srpska in the period 2009-2015 (in% compared to 2008)



Source: RS Republic Institute for Statistics, calculations of the author

The above stated leads to the conclusion that reducing the load on labour in this sector very likely contributed to the positive effects even in the short term, and especially when it comes to the employment in the formal economy.

5. Labour Taxation and Informal Employment in Europe

Character of the informal employment varies in different EU countries both in terms of representation and structure. The reasons for these differences lie in the structure of productivity, the institutional power of the public authorities and the regulatory system, but also in the social protection systems. Partial reporting of work in a country can also be a reflection of the lack of its formal labour market.⁴⁴

Eurobarometer 2013 points to these factors:

- ▶ Structural economic factors, levels of taxation and costs of compliance (including labour laws).
- ▶ The perception of high taxes and costs of compliance with regulations and the degree of corruption: this does not happen necessarily only in countries with the highest taxation, which may reflect dissatisfaction with the quality of public services provided by public institutions.
- ▶ Size of companies is also important: dependent employees who receive salaries in envelopes usually work within small collectives. 56% of them work for entities that employ fewer than 20 people, which reflect the duality of the labour market between large and small companies.
- ▶ Cyclical economic factors.
- ▶ Tied social events: an increase in the duration of unemployment, the number of discouraged workers, the low rate of job vacancies, the situation of vulnerable groups, including illegal immigrants, as well as pressure on reducing wages, all of which contributes to the phenomenon of partially declared work.
- ▶ Those who usually take part in the partial declaring of engagement are in most cases people who find a job harder, young people or students.

As for the exchange of good practices, the European Parliament and the Council of the European Union in March 2016 adopted a Decision on establishing the European platform for improving cooperation in prevention and stopping partly declared work.⁴⁵ The platform provides cooperation between different authorities for controlling the application of the legislation, such as labour inspectorates, social security, tax authority and institutions that deal with migration and all these bodies are involved in the prevention and/or stopping of partly declared work. The initiative aims to strengthen cooperation through the sharing of information and best practices, developing expertise, promoting and facilitating cross-border cooperation.

⁴⁴ European Commission, 2015, "European Semester Thematic Fiche Undeclared Work".

⁴⁵ European Parliament and Council of the European Union, 2016, "Decision of the European Parliament and of the Council on establishing a European Platform to enhance cooperation in the prevention and deterrence of undeclared work".

TableNo. 2: Tax Wedge in EU, expressed in % (2014; household type: single)

Country	Tax wedge for 67% of the average income	Tax wedge for 100% of the average income	Tax wedge for 167% of the average income	Share of workers who are not covered by contributions in some countries in 2008 *	Size and development of the informal economy, an average in the period 1999-2007 as% of GDP **	Informal work (% expanded workforce) ***
EU 27 average	37,53	41,06	45,04			
EU 28 average	37,47	41,04	45,02			
Belgium	49,86	55,58	60,76	36,2	16,2	10,5
Bulgaria	33,62	33,62	33,62		30,6	13,2
Cyprus					24,8	53
Czech Republic	39,72	42,64	45,03	40,4	15,1	12,5
Denmark	36,44	38,07	43,64		12,0	11,5
Germany	45,14	49,31	51,35		12,2	11,9
Estonia	38,97	40,05	40,92	33,9	26,2	9,8
Ireland	22,13	28,18	39,61	40,3	11,3	33
Greece	35,67	40,41	47,99	37,3	22,4	46,7
Spain	37,27	40,71	44,99	41,4	18,2	18,8
France	45,17	48,44	54,33		12,3	10,3
Croatia	36,05	40,52	44,61		27,7	није доступно
Italy	42,37	48,22	53,81	39,3	20,6	22,4
Latvia	42,31	43,19	43,90		23,6	8
Lithuania	38,89	40,89	41,98		25,8	6,4
Luxembourg	30,37	37,57	44,59	32,6	8,3	није доступно
Hungary	49,03	49,03	49,03	42,4	21,9	9,4
Malta	18,77	24,54	26,58		24,3	није доступно
Netherlands	32,06	37,71	43,10	21,6	9,0	12,6
Austria	44,78	49,35	52,05		8,2	19,7
Poland	34,80	35,60	36,24	57	23,3	21,6
Portugal	34,95	41,22	47,50	38,5	17,6	22,4
Romania	41,04	42,09	42,58		28,0	11,8
Slovenia	38,55	42,46	46,28	25,2	23,3	14,1
Slovakia	38,59	41,21	43,35	38,5	14,1	12,2
Finland	38,38	43,90	49,71	23,5	12,4	11,2
Sweden	40,50	42,46	50,64	22	13,2	8,2
United Kingdom	26,40	31,09	37,47		9,4	21,7

Source: European Commission, link:http://ec.europa.eu/economy_finance/db_indicators/tab/, date taken March 15th 2016

Notes:

*OECD calculation based on EU-SILC 2007 and 2008, taken from Schneider, F., 2012, "The Shadow Economy and Work in the Shadow: What Do We (Not) Know?".

**Schneider, F., 2015, "Size and development of the Shadow Economy of 31 European and 5 other OECD Countries from 2003 to 2015: Different Developments".

***Hazans, M., 2011, "Informal workers across Europe: Evidence from 30 European countries".

According to data of *Hazans*⁴⁶ (see Table no. 2), the informal work, expressed as a% of the expanded labour force⁴⁷, is mainly pronounced in the South in countries such as Cyprus (53%), Greece (46%), Portugal (22, 4%) and Italy (22.4%), yet at least it is present in countries such as Lithuania (6.4%), Latvia (8%) and Sweden (8.2%). Simple average is slightly above 17%, and the average value is 12.5%. Total population weighted average for these 30 countries is 15.7%, while one of six members of the workforce (and about one in ten of the adult population) in Europe worked in a shadow area at the time of the survey in 2008 and 2009. The total informal employment (in *Hazans*' research these are all workers whose primary job is without a contract, self-employed non-professionals and employers with five or fewer employees) accounts for about 10% of the expanded workforce in Northern Europe and 14% in the West and the East, with 25% in the South.⁴⁸ It is important to note that these results certainly depend on the methodology used to classify workers in the formal and informal group.

According to data from the databases of the European Commission on the tax wedge, labour taxation varies across EU countries. We can say that Belgium and Hungary are leading countries in terms of the amount of the tax wedge, where in 2014 it was above 49% (for earnings in the amount of 67% of the average wage in the country). Behind them is a group of countries that reduce the average among which Ireland is the leader with the tax wedge of 22.1%, followed by the United Kingdom 26.4% and Netherlands 32.06%. The average tax wedge in EU28 amounts to 37.47%, which is quite high compared to other parts of the world such as Korea 21.5%, US 31.5%, Israel 20.5%, Japan 31.9%, Mexico 19, 5% and Canada 31.5%.⁴⁹

With the average level of earnings situation is slightly different. Belgium is still leading with the tax wedge of over 55%, followed by the Denmark and Italy with 49.3%. Romania has the lowest tax wedge at this level of earnings (28.2%), followed by Cyprus (31.1%) and Hungary (33.6%). The average tax wedge in EU28 per worker with average earnings amounted to 41%.

Based on data from the European Commission on the tax wedge, we can say that the level of the tax wedge varies across the EU and that there is no strong common policy in the field of labour taxation. It is also important to note that it's not just the volume but also the structure of the tax wedge, which varies from member to member. Generally, the EU is an area of high tax burden on labour compared to other developed economies, although the strategy "Europe 2020" highlighted "... to avoid raising labour taxes which impose high costs for jobs as it was done in the past period. Instead, member States should redirect the tax burden from labour to energy and environmental taxes".⁵⁰

46 Mihails Hazans, 2011, "Informal Workers across Europe: Evidence from 30 Countries".

47 Labour force extended so as to include the discouraged workers.

48 Mihails Hazans, 2011, "Informal Workers across Europe: Evidence from 30 Countries".

49 OECD, 2016, "Taxing Wages: tax burden on labour income in 2015 and recent trends".

50 European Commission, 2010, "EUROPE 2020 - A strategy for smart, sustainable and inclusive growth".

Table No. 3: The tax wedge in selected EU countries, per worker (single) on a salary in the amount of 67% of the average amount of

Country	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Difference (2014-2005)
Ireland	16,9	16,1	15,0	15,1	16,2	16,8	20,0	20,1	21,5	22,1	5,2
UK	30,6	30,6	30,8	29,7	29,1	29,4	28,5	27,9	26,8	26,4	-4,2
Luxembourg	28,7	29,2	30,0	28,2	27,4	27,7	29,5	29,2	30,1	30,4	1,6
Netherlands	41,7	33,2	33,4	34,1	33,3	33,6	33,5	33,6	32,3	32,1	-9,7
Poland	37,5	37,9	37,1	33,6	33,1	33,3	33,4	34,7	34,8	34,8	-2,7
Portugal	32,1	32,8	32,5	32,2	31,9	32,2	32,3	32,6	35,2	35,0	2,8
Greece	35,5	36,5	36,5	36,3	36,6	35,8	40,0	39,8	37,1	35,7	0,2
Denmark	38,9	38,9	38,9	38,6	38,0	36,7	36,9	37,0	36,6	36,4	-2,4
Spain	35,7	36,0	35,7	34,1	34,4	36,5	36,8	37,2	37,2	37,3	1,5
EU 28 average	37,1	36,6	36,6	37,3	36,9	36,9	37,6	37,8	37,6	37,5	0,4
EU 27 average	37,1	36,6	36,6	37,3	36,9	36,9	37,6	37,8	37,7	37,5	0,5
Finland	39,3	38,9	38,6	38,7	37,2	36,8	36,8	36,8	37,6	38,4	-1,0
Slovenia	41,8	41,4	40,9	40,3	39,7	38,6	38,7	38,6	38,5	38,5	-3,3
Slovakia	34,8	35,3	35,5	36,1	34,4	34,7	36,1	36,9	38,5	38,6	3,7
Lithuania	42,6	40,6	41,2	40,3	38,9	38,8	38,9	39,2	39,5	38,9	-3,7
Estonia	38,1	37,3	37,6	37,1	37,8	38,7	39,0	39,2	38,8	39,0	0,9
Czech Republic	42,0	40,1	40,6	40,1	38,8	39,0	39,7	39,4	39,4	39,7	-2,3
Sweden	46,6	46,0	43,3	42,6	41,3	40,7	40,7	40,8	40,9	40,5	-6,1
Italy	42,5	42,8	42,9	43,3	43,5	44,0	44,5	44,7	44,9	42,4	-0,2
Austria	43,3	43,8	44,2	44,5	43,3	43,5	43,9	44,2	44,6	44,8	1,4
Germany	47,3	47,5	47,0	46,5	45,9	44,9	45,6	45,5	45,1	45,1	-2,2
France	46,5	46,3	46,5	46,6	46,6	46,8	47,0	47,0	45,6	45,2	-1,3
Hungary	43,1	43,3	46,1	46,8	46,2	43,8	45,2	47,9	49,0	49,0	5,9

Source: European Commission, link: http://ec.europa.eu/economy_finance/db_indicators/tab/, Taken on March 15th2016

Changes in the tax wedge on wages in the amount of 67% of the average salary in the period between 2005 and 2014 (Table 3) show that in about half of the selected countries tax wedge decreased. The tax wedge is the most reduced in the Netherlands, Sweden, the United Kingdom and Portugal. In some member states it has increased for 67% and 100% of the average salary. The increase was highest in Hungary, Ireland and Slovakia.

According to the findings of *Eurofound* (2013)⁵¹, problem-solving of partly declared work was traditionally solved with repressive approach. However, the European Commission is urging to recourse to a larger number of measures aimed at preventing citizens from entering the shadow zone and for those already operating to permit to legalize their activities. It is noted that the repressive measures are still attached to great importance to the EU countries when dealing with the shadow economy, while the other measures of public policy are considered less important. In this context it is important to mention the regional variations that exist in such an approach. For instance, in Iceland and the neighbouring Nordic countries, more importance is given to measures that are not repressive.

51 Eurofund, 2013, „Tackling undeclared work in 27 European Union Member States and Norway – Approaches and measures since 2008“.

6. Examples of policies in the EU

This chapter presents examples of reforms in the direction of reducing the tax burden on labour from several EU countries.

6.1. Case of the country: Republic of Ireland

Labour taxation in Ireland represents an interesting example of the economy with a system of taxes and benefits that are highly progressive and redistributive. According to the Irish business organization *Ibec*, the Irish system of income tax is the most progressive in the developed world. A person who earns 167% of the average salary (54.442 EUR) has an effective tax burden for the whole 19.3 percentage points higher than those with 67% of the average salary (21.842 EUR).

In Ireland the system of taxes and transfers reduces the Gini coefficient of measured inequality by 35%, while the average for the EU is 15.7%, making it the most redistributive in Europe. Progressivity of the Irish tax system is mainly based on a narrow basis for income taxes (almost 38% of tax cases are functionally exempt from income tax), together with the low level of taxes for those with lower incomes and northern European style of levels of taxation for those with medium to high incomes. This has an important impact on income inequality after taxes and on labour incentives in a positive way.⁵²

Table 4: Movement of the tax wedge and its structures in Ireland on incomes in the amount of 67% of the average amount of income (expressed in%)

Year	Total	Tax on Personal Income	Contribution for Social Security (employee)	Contribution for Social Security (employer)
2014	22,1	8,8	3,6	9,7
2012	20,1	7,9	2,5	9,7
2010	16,8	4,6	2,5	9,7
2009	16,2	4,0	2,5	9,7
2007	15,0	2,8	2,5	9,7
2005	16,9	4,8	2,4	9,7
2003	16,6	6,4	2,3	7,8
2001	17,6	7,6	2,2	7,8

Source: European Commission, link:http://ec.europa.eu/economy_finance/db_indicators/tab/.

⁵² Ibec, 2014, "Debunking Irish Income Tax Myths - An analysis of the taxation of income in Ireland".

Table 5: Changes of the tax wedge and its structure in Ireland on income in the amount of 100% of the average amount of income (expressed in%)

Year	Total	Tax on Personal Income	Contribution for Social Security (employee)	Contribution for Social Security (employer)
2014	28,2	14,9	3,6	9,7
2012	25,9	13,3	2,9	9,7
2010	25,8	9,6	6,5	9,7
2009	24,7	9,2	5,9	9,7
2007	22,2	7,9	4,6	9,7
2005	23,5	9,2	4,6	9,7
2003	24,4	10,2	4,5	9,7
2001	25,89	10,8	4,4	10,7

Source: European Commission, link:http://ec.europa.eu/economy_finance/db_indicators/tab/.

Table 6: Movement of the tax wedge and its structures in Ireland on incomes in the amount of 167% of the average amount of income (expressed in%)

Year	Total	Tax on Personal Income	Contribution for Social Security (employee)	Contribution for Social Security (employer)
2014	39,6	26,3	3,6	9,7
2012	38,1	25,2	3,2	9,7
2010	36,4	19,9	6,8	9,7
2009	35,2	19,3	6,2	9,7
2007	33,0	18,5	4,8	9,7
2005	34,9	20,5	4,6	9,7
2003	35,0	20,6	4,6	9,7
2001	36,0	20,9	4,4	10,7

Source: European Commission, link:http://ec.europa.eu/economy_finance/db_indicators/tab/.

Total tax wedge on labour in Ireland is relatively low in average earnings due to lower contributions to social protection. From the above tables it is obvious that the recipient of medium or high salaries Ireland as country is the one with medium to high level of taxation.

Changes in the taxation and treatment of income in Ireland from 2001 to 2014 led to some increases in the effective tax rates for all classes of those who earn income. The effective tax rates on incomes in 2014 ranged from 2% for someone who earns 10.000 EUROS up to 47.4% for someone earning 250.000 EUROS. In the period from 2008 to 2014 the biggest change occurred in those who were earning from 35.000 to 100.000 EUR, where the largest increase occurred in the income range of 35.000 to 60.000 euros. The maximum effective tax for a person earning 35.000 EUROS has risen from 13.2% in 2008 to 18.8% in 2014. According to the organization *Ibec*, this growing burden of taxes on labour has a number of consequences for the economy of Ireland. The main economic effect of personal income tax is its influence on the decisions of people on the margins of the labour.

OECD database on taxation of salaries shows that the wage tax (which does not include social security contributions) for a person receiving the average salary in Ireland in 2012 was 13.3%, above the OECD average (10.1%). However, in those with lower earnings, this rate is much lower (7.9%), which is very important.

In addition to progressive taxation, Ireland provides an example of how the law and legal procedures should be

established so as to ensure the existence of a clear situation concerning the legal status of workers and an efficient way of determining the status of individual workers or groups of workers.⁵³This is accomplished through the work of the Group for the Monitoring of the hidden economy. This group has prepared a Law on the definition of the status of employees or self-employed individuals. The group was established because of the growing worries that larger number of individuals who are categorized as “self-employed” might appear (a status of “employee” would better suit the real situation).

In Ireland, inspectors from different institutions participate in joint inspections on an *ad hoc* basis through the Inspection unit that connects inspectors from the Labour Inspectorate, Ireland Administration for Taxation and Customs and the Department of Social Welfare. Also, a joint inspection of the police and the Labour Inspectorate act as a forum for the exchange of knowledge between the two bodies since 2009.⁵⁴

6.2. Case of the country: Tax Reforms in Slovakia

Slovakia has started an interesting way when we consider the tax wedge on one person (single) at 67% of the average wage. The total tax wedge in 2004 was close to 39%, afterwards we see a decrease from 2006 to 2010 and then again some increase from 2012. Leading reduction of this burden occurred in the form of reduced contributions paid by the employer from 26% to 20.8% in 2010, followed by an increase to 23.8% in 2014. According to the Statistical Office of Slovakia, on undeclared work in 2000 went from 13% to 15% of GDP and this percentage has decreased slightly in recent years. At the informal sector goes about 12.2% of the expanded labour force while the share of employees for who social security contributions were not paid in the group of other countries was about 38.5% in 2008.

The main measures pertaining to taxes were the introduction of a fixed rate of income tax and equalization of this rate with the rates of corporate income tax and VAT on the percentage of 19%. Since the initial introduction of fixed rates in Estonia in 1994 several countries continued with this practice, including Russia (2001), Slovakia (2004), Georgia and Romania (2005), Macedonia and Albania (2007), the Czech Republic and Bulgaria (2008) and Hungary (2011).

Table 7: Changes of the tax wedge and its structure in Slovakia per one worker (single) on income in the amount of 67% of the average amount of income (expressed in%)

Year	Total Tax Wedge	Personal Income Tax	Contributions employee	Contributions employer
2014	38,6	4,6	10,2	23,8
2012	36,9	4,6	10,5	21,8
2010	34,7	3,3	10,6	20,8
2008	36,1	4,7	10,6	20,8
2006	35,3	3,9	10,6	20,8
2004	39,2	3,3	9,9	26,0
2002	40,6	4	9,3	27,6

Source: European Commission, link: http://ec.europa.eu/economy_finance/db_indicators/tab/, taken on March 15th2016

We will present this reform in the way it was presented by *Anne-Marie Brook* and *Willi Leibfritz*.⁵⁵Before the reform of the tax rate on personal income tax was progressive and ranged from 10% to 38%. Income tax had a standard rate of 25%, with a reduced rate of 18% and 15%. VAT had a standard rate of 20% and a reduced rate of 14%. Fixed

53 International Labour Organisation, 2015, “Extending Labour Inspection to the Informal Economy, A Trainer’s Handbook”.

54 Heyes, J. and Hastings, T., 2015, “Labour Administration in the UK: Organisation, Challenges and Recent Developments”.

55 Anne-Marie Brook and Willi Leibfritz, 2005, “Slovakia’s Introduction of a Flat Tax as Part of Wider”.

income tax includes the main personal income, related to the level of subsistence, and it gradually decreases with the increase of income and is excluded if the tax base reaches a value 100 times higher than the level subsistence. In this way, the effective tax rate increases slightly with the increase of income, which makes income tax slightly progressive.

However, as social security contributions are limited to an upper value of income (on income above a certain value of income, contributions are not calculated), the total tax on labour becomes more regressive for more income amounts. Furthermore, the tax base for personal income tax and corporate income tax were extended by reducing or eliminating exemptions and reductions. Excise duties on mineral oils, beer and tobacco were increased, while the tax on the transcript and the allocation of property was abolished in 2005.

This tax reform reduced the income tax and the tax burden is more diverted to consumption. Although this cannot be attributed only to the tax reform, from 2004 to 2008 Slovakia reached an average annual growth of 8%, the highest among the new EU member states. Employment increased by almost 3% per year, while unemployment fell from 18% in 2004 to less than 10% in 2008.

Four years after the introduction of the reform, revenues from personal income tax were 0.8 percentage points (expressed as a percentage of GDP) less than four years earlier, but the revenue from corporate income tax was 0.2 percentage points higher. Revenue from VAT and excise duties have increased by 0.3 and 0.4 percentage points respectively. Total tax revenues fell by about 3 percentage points. Two-thirds of the decline was due to lower income from contributions and one-third was due to lower rate of tax. However, since government spending declined at a faster rate than revenues, Slovakia has managed to reduce the budget deficit from over 7% of GDP (period 2000-2003) to less than 3% (period 2004-2007), which also contributed that the country met criteria for joining the Euro-zone in 2009.

The introduction of the flat tax enabled payers with easier regulatory compliance and thus led to a reduction of undeclared work, while the size of this effect remains unclear. **The tax wedge fell in the category of workers with low earnings as a result of an increase in the exemption from the payment of personal income tax, thus the minimum wage are exempt from payment of this tax.** The tax wedge also decreased for those with high incomes as a result of the elimination of the progressive rate structure. Employees with an average salary, married workers with children and the unemployed spouses benefited from the refunded child allowance, while the tax wedge for workers singles generally remained constant.

Essentially, the tax reform from 2004 has made the tax system simpler and more transparent. Together with other changes, it has led to a decline in total tax burden, including tax on labour. Tax reform and the reduction of social benefits, in essence, should lead to a marginal reduction of informal employment, the more so since economic growth was high and the employment increased.

The main arguments against the fixed tax rate are negative distributional effects at the expense of the middle class, which may jeopardize the long-term sustainability of such a system. In addition, the recent crisis has intensified social demands in Slovakia "that the rich have to bear their share of the burden." Since the introduction of this reform representation of undeclared work seems to be reduced, leaving some low-skilled workers outside the formal sector, often for extended periods, especially in the less developed eastern regions. Low qualifications of these workers reduce their productivity below the minimum wage and they therefore have difficulty in finding jobs in the formal sector. They, in addition, are not willing to leave their place to look for work in other areas, resulting in recourse to informal work.

In January 2013, Slovakia's leftist government (which previously did not change the regime with a fixed tax rate) has re-introduced a progressive personal income tax (PPIT) as part of a package of austerity measures. In addition to the original fixed tax of 19%, PPIT amounts 25% for incomes which are for 176.8 or higher than the level of subsistence (which is currently about 34.400 euros). Also, the income tax rate was increased to 23%.

Clear empirical effects of introducing a fixed tax rate is difficult to calculate, for two reasons. First, many things

have changed at the same time (entering the EU, reduced labour costs, tax reform, etc.). Secondly, little or no quality (micro) data is available from the period before the reform. However, in the period after 2004, Slovakia has had a strong growth and decline of unemployment, and it is still the fastest growing country in the EU. *Brook and Leibfritz* estimate that more progressivity of PPIT should not have significant effect, because the top marginal rate of 25% is still low in comparison with other European countries, and estimates suggest that the elasticity of taxable income shall be low as well.

6.3. Case of the country: Tax Reforms in Czech Republic

The introduction of fixed-rate of personal income tax in the Czech Republic in 2008 system of progressive taxation with the four tax categories (12%, 19%, 25% and 32%) has been replaced by a single tax rate of 15 per cent. However, since the contributions were now included in the base for personal income tax, tax rate calculated in a conventional way (i.e. without contributions on social protection in its base) was 23%. On the other hand, tax credits (including the basic tax credit) and additions for employees with low incomes have increased. An upper limit for base for social protection contribution was established in the amount of four average salaries, while the upper limit for the self-employed increased to the same level. Income tax was gradually reduced from 24% in 2007 to 19% in 2010, while at the same time the tax base was expanded.

Family taxation for married couples with children was introduced in 2005. Tax credits are available for each person - the spouse with certain receiving and per child. Moreover, **the tax rate in the Czech Republic can be negative in the case of families with children if the income tax is lower than the sum of family allowance to which the taxpayer is entitled.** Average tax rates on personal income are more pronounced at higher incomes. The government of the Czech Republic in 2008 through tax revenues from personal income tax collected 3.7% of GDP.

Table 8: Changes of the tax wedge and its structure in Czech Republic per one employee (single) on income in the amount of 67% of the average amount of income (expressed in%)

Year	Total	Tax on Personal Income	Contribution for Social Security (employee)	Contribution for Social Security (employer)
2014	39,7	6,1	8,2	25,4
2013	39,4	5,9	8,2	25,4
2012	39,4	5,9	8,2	25,4
2011	39,7	6,1	8,2	25,4
2010	39,0	5,4	8,2	25,4
2009	38,8	5,2	8,2	25,4
2005	42,0	6,8	9,3	25,9

Source: European Commission, link: http://ec.europa.eu/economy_finance/db_indicators/tab/, taken on March 15th 2016

As stated by *Galušćak and Katay*⁵⁶, on average 10% increase in net salaries in the Czech Republic leads to an increase of 3.7 percentage points in the active participation in the labour market. On the other hand, the increase in transfers of 10% reduces the likelihood that a person will be active by 1.2 percentage points. The same survey estimated the height of the stated effects in different subgroups in the labour market in the Czech Republic. The full sample is divided into subgroups depending on the level of education, sex and marital status. The results are given in the table below:

56 Galušćak, K., Katay, G., 2014, "Labor Force Participation and Tax-Benefit Systems: A Cross-Country Comparative Perspective".

Table9: The estimated effects on the active participation in the labour market in the Czech Republic in selected subgroups

Subgroup		Estimated effect*	Standard error
Full Sample			
All Persons	netsalary	0.373	0.099
	Transfer	-0.121	0.028
Elementary school or less	net salary	0.231	0.097
	Transfer	-0.077	0.030
High School	net salary	0.307	0.079
	Transfer	0.023	0.023
Higher education	net salary	0.157	0.032
	Transfer	-0.043	0.007
Sample of the age group 25-54 years			
Only men (single)	net salary	0.078	0.019
	Transfer	-0.025	0.005
Only women (single)	net salary	0.212	0.058
	Transfer	-0.064	0.015
Married men	net salary	0.016	0.002
	Transfer	-0.004	0.000
Married women	net salary	0.236	0.067
	Transfer	-0.060	0.015
Women of reproductive age (25–49)	net salary	0.266	0.078
	Transfer	-0.069	0.018
Older (50+)	net salary	0.524	0.155
	Transfer	-0.227	0.060

Source: Galuščák, K., Katay, G., 2014, "Labour Force Participation and Tax-Benefit Systems: A Cross-Country Comparative Perspective", <http://www.cnb.cz>. Published by the Czech National Bank.

* Note: The conditional marginal effects expressed in percentage points incurred as a result of changes in one factor (net pay or transfer), holding all other factors unchanged.

Table 9 shows that the response in terms of activities on changes and net wages and transfers is lower in people with higher (tertiary) education, while the effects of the population aged 25 to 54 years are lower (in absolute value) than with the results of the entire population, which is a sign that people in this productive age are less responsive to changes in taxes and transfers than the rest of the population. In the category of population in productive age it has been noted that women react more than men, especially married women and women of reproductive age. Finally, the results for the elderly show that the response of the elderly to changes in net wages and transfers was even higher.

As claimed by Packard *et al.* it appears that the Czech Republic has succeeded in curbing undeclared work.⁵⁷ According to the Czech Statistical Office on undeclared work in the Czech Republic in 2006 and 2007 went 9-10% of GDP, which is the second lowest score after Estonia and this has not changed yet. For those who remained in the gray zone dominating are the self-employed ones and registered unemployed, but there are also workers with regular employment. This practice is more common among lower-skilled workers than for higher-qualified, although the incidence of tax evasion in the latter is more significant.

57 Packard, T., Koettl, J. and Montenegro, C. E., 2012, "In From the Shadow: Integrating Europe's Informal Labor".

The sector with widespread occurrence of the work “in the shadow” in the form of registration of self-employment in the Czech Republic is construction sector where in 2007, 40% of all workers worked as a self-employed and more than 150.000 of these self-employed, in principle, was able to perform the job as a dependent employee. *Leibfritz* estimates that between one-eighth and one-quarter of all self-employed in the Czech Republic are “fake self-employed”, known as “*Schwarz-system*”. Although the status taxes on labour (income tax and social security contributions) are the same for employees and self-employed, the latter have more gain because of lower tax base: in 2006 the base for social security contributions for the self-employed was 50% of earnings (40% in 2004 and 45% in 2005). The self-employed are also easier to report lower earnings refusing personal expenses as business expenses or not declaring sales.⁵⁸

6.4. Case of the country: Tax Reforms in France

France is used here as an example of a country that has entered the process of reforming the system with very high taxation of labour and long socio-political traditions in this area. Its social duties and taxes on labour are among the highest in Europe (for example, the tax wedge for a single person receiving the amount of 67% of the average income in the country is over 45%), but for some time the country is struggling with low employment rate of young people and older workers and high rates of long-term unemployment.

Table 10: Changes of the tax wedge and its structure in France per one employee (single) on income in the amount of 67% of the average amount of income (expressed in%)

Year	Total	Tax on Personal Income	Contribution for Social Security (employee)	Contribution for Social Security (employer)
2014	45,2	9,5	10,5	25,2
2012	47,0	9,0	9,9	28,0
2010	46,8	8,8	9,8	28,2
2008	46,6	8,8	9,9	28,0
2006	46,3	8,7	9,9	27,7
2003	44,7	8,9	10,1	25,7

Source: European Commission, link:http://ec.europa.eu/economy_finance/db_indicators/tab/, taken on March 15th2016.

In this section, we shall present the recent tax history of France as seen by *Henri Sterdyniak* (2015).⁵⁹ *Sterdyniak* notes that the measures at the beginning of his mandate in 2007 were introduced by *Nicolas Sarkozy* (and especially law on work, employment and purchasing power) enacted tax cuts of about 16 milliard euros for one year: the release of overtime work from taxation, recognition of interest on residential loans as a personal allowance, tax cuts on great wealth and inheritance tax, tax cuts for local companies and the extension of tax credits for research and development purposes.

However, after that *Fillon's* government abolished excluding of interest payments on the mortgage from taxation, raised a “social tax” and corporate income tax and introduced contributions to high incomes and additional regulations on income tax, and frozen categorizing income tax (which was earlier indexed by prices), all in all, raising tax revenues by 30 milliard euros.

Since 2012, *Francois Hollande* has returned the taxation of overtime work, increased the tax on inheritance and the solidarity tax for the rich, increased taxation of capital gains, held non-indexing of income tax by categories,

58 Leibfritz, W. 2011, “Undeclared Economic Activity in Central and Eastern Europe: How Taxes Contribute and How Countries Respond to the Problem”.

59 Sterdyniak, H., 2015, “The great tax reform, a French myth”.

lowered the threshold for the tax reduction for families, increased “social tax”, social contributions to pension and contributions for the self-employed and tightened regulations regarding the income tax. Generally, the tax burden of households has increased given that there was also an increase in VAT rates.

Sterdyniak considers that developments after the *Sarkozy’s* five-year mandate demonstrates how difficult is to implement liberal reforms of taxation in France.

However, a new episode began in 2014 after the employers complained about the excessive taxes that harm the competitiveness of companies and investments. The government has introduced a tax credit for competitiveness and employment and published a “Responsibility Pact”, the reduction of income tax and the abolition of one part of the contribution paid by companies, which totalled in 40 milliard euros. Meeting the growing dissatisfaction about the level of taxes the government also announced a reduction of contributions on low salaries paid by the workers on the income tax for those with low and middle incomes (with a total value of 5 milliard euros).

Based on the report of the OECD for 2014 on structural reforms in France, hereby are presented a quantitative knowledge of current reforms. **Actually, it is estimated that these measures should raise GDP by 0.6% over 5 years and 1.3% over 10 years.** This estimate is based on a number of reforms which limited labour costs, especially for those with low wages: existing exemptions from social security contributions targeted at those with low salaries are supplemented by a tax credit for competitiveness and employment, which was introduced progressively during 2013, 2014, and through various measures under the “Responsibility Pact”, which entered into force in 2015. The conclusions and recommendations of the team the OECD calls on the future labour market reforms to be implemented and accelerated in the direction of improving the functioning of the labour market, especially for unskilled workers, and to reduce the duality between fixed-term and indefinite contracts, with the aim of raising participation workforce that belongs to the limit age groups and improving the skills of the working population.⁶⁰

According to the economic report of the OECD of 2015, France has a lot of work on reducing labour market rigidity, which is rated as a major economic weakness of the country. The report encourages France to cope with the duality of the labour market - the division of the labour force in the short and long term hired staff as a result of excessively “long and complicated procedures of firing.”⁶¹

60 OECD, 2014, “France -Structural reforms: impact on growth and options for the future”.

61 OECD, 2015, “Economic Surveys - France March Overview”.

7. Projections of the impact of reducing labour taxation on public revenues in Republic of Srpska

This Chapter analyses as an example the effect of reducing the rate of health insurance contributions by 1 percentage point (pp.) on public revenues in Republic of Srpska.⁶² This example should firstly illustrate how revenue effects of such a measure depend on many different factors. Accordingly, all estimates quoted are based on assumptions that are explained in more detail below.

In general, the effect the reduced contribution rates would have on the revenue from these contributions depends on: 1) the amount by which the rate is reduced and 2) changes in the size of the tax base which is a result of the reduction rate.

While the amount for which the rate is decreased is in complete control of the decision maker, the second element – the change of the tax base – is not. How would the taxed base move in the period after the reduction of the contribution rate depends primarily on changes in the number of employees who are registered and the amount of their salaries (i.e. income on which health contributions are paid). However, the movement of registered employment and amount of wages affect a number of factors, such as general economic growth, other changes related to economy, social and tax policies, the results of negotiations between the social partners and work of labour inspection authorities affecting the size of employment “off the books” and “in the shadow”.

In order to differentiate between the impacts of the reduction in the contribution rate from the influence of other factors on the movement of the tax base (in a future period) it is necessary to do a projection of the movement of the tax base with and without the assumed reduction in contribution rate.

The World Bank’s analysis of the countries of Eastern Europe and Central Asia from 2007 estimated that if all other factors are kept constant, reducing the tax wedge by 1 percentage point results in an increase in the employment rate in the range of 0.3-0.6 percentage points.⁶³ The same report states that the second analysis, which used data only for 8 new EU member states, shows that this measure results in a rise in the rate of employment growth of 0.5 p.p. ⁶⁴ For this reason and for the purposes of these projections it was assumed that the effect should be an increase in the rate of employment growth in Republic of Srpska by 0.5 p.p.⁶⁵ They also used two other values of this effect (0.3 p.p. and 0.8 p.p.) to demonstrate the extent to which they affect the revenue trend.

The projections prescribe the reduction of the contribution rate shall enter into force in early 2017. The assumption is used that the effect of the increase in employment in proportion relation would reflect on the increase in the tax base.⁶⁶ Movement of the tax base in the basic scenario is based on data from the Paper on Framework Budget of Republic of Srpska for the period 2016 - 2018.

62 Reducing the contribution rate by 1 pp is equivalent to reducing the tax wedge for 1 pp.

63 World Bank, 2007, “Fiscal Policy and Economic Growth – Lessons for Eastern Europe and Central Asia”, pg. 299.

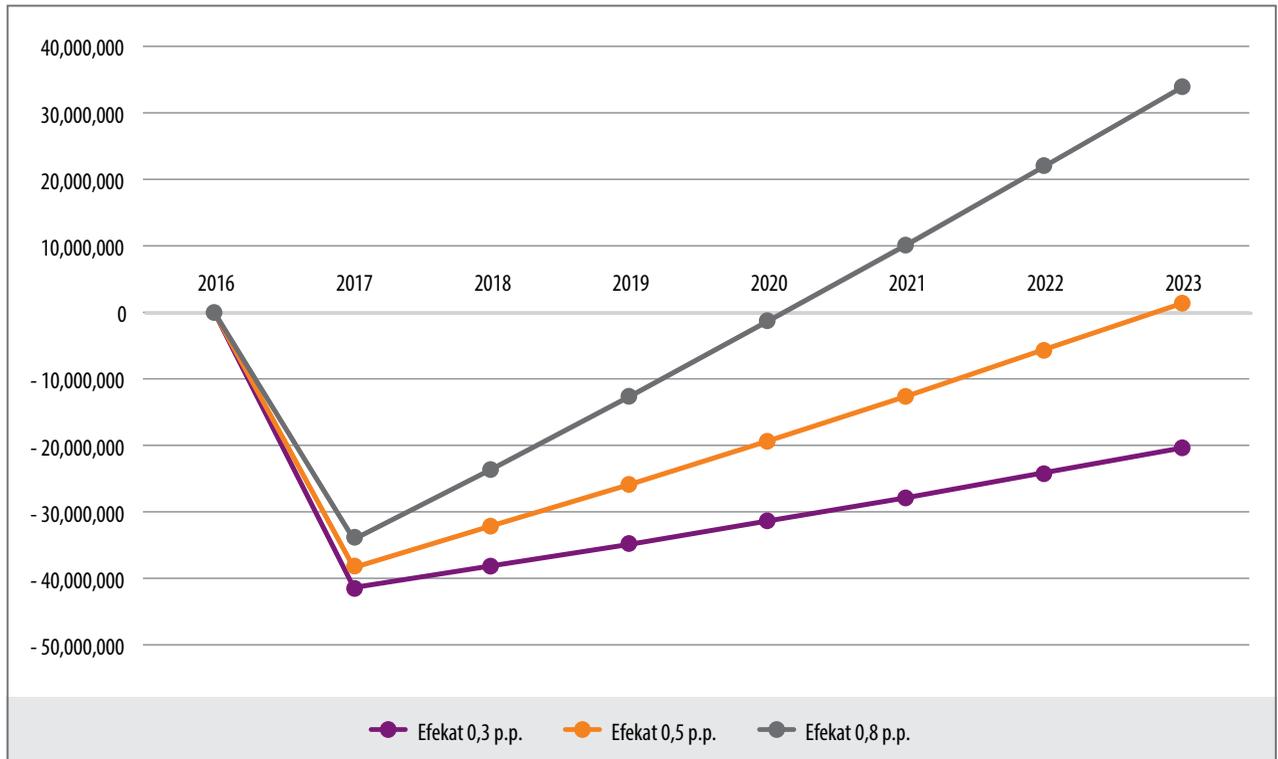
64 The authors of this study point out that this effect may be specific to the period of intensive restructuring of companies associated with the period of transition.

65 It is assumed that this effect will be present in all the years covered by the projections in an unchanged amount. It should be borne in mind that there are limits to the validity of this assumption, especially when it comes to longer periods and larger amounts of change of the tax wedge.

66 This is a simplified assumption. For example, it does not take into account the possibility of an increase in the concentration of employment in certain pay grades that could affect the relationship employment-tax basis. However, it is important to emphasize that this factor (if included) was expressed through the correction of the tax base in all three scenarios that simulate the effects of this measure on the revenues.

Projected revenues refer to the period of 7 years after the presumed reduction of contribution rate (2017-2023). In Figure No. 5 it can be seen to what extent the effect of this measure on revenues depends on the size of its effect on employment.

Figure 5: Projections of the impact of the reduction in the contribution rate by 1 pp. on revenues depending on the size of the effect on the employment rate



Source: own calculations

In the case of the weakest of the three effects on the employment rate (+0.3 pp.) projected decline in revenue in the first year of implementation amounts 41 million KM, and gradually decreases, and after 7 years would amount around 20 million KM. Accordingly, a revenue effect in the reporting period would have been decreasing negative.

When applying effects in the amount of 0.5 percentage points the situation changes significantly. The fall in revenues in the first year is 38 million KM, and after 6 years it amounts only 5.6 million, while in the 7th year there would be a positive impact on revenues.

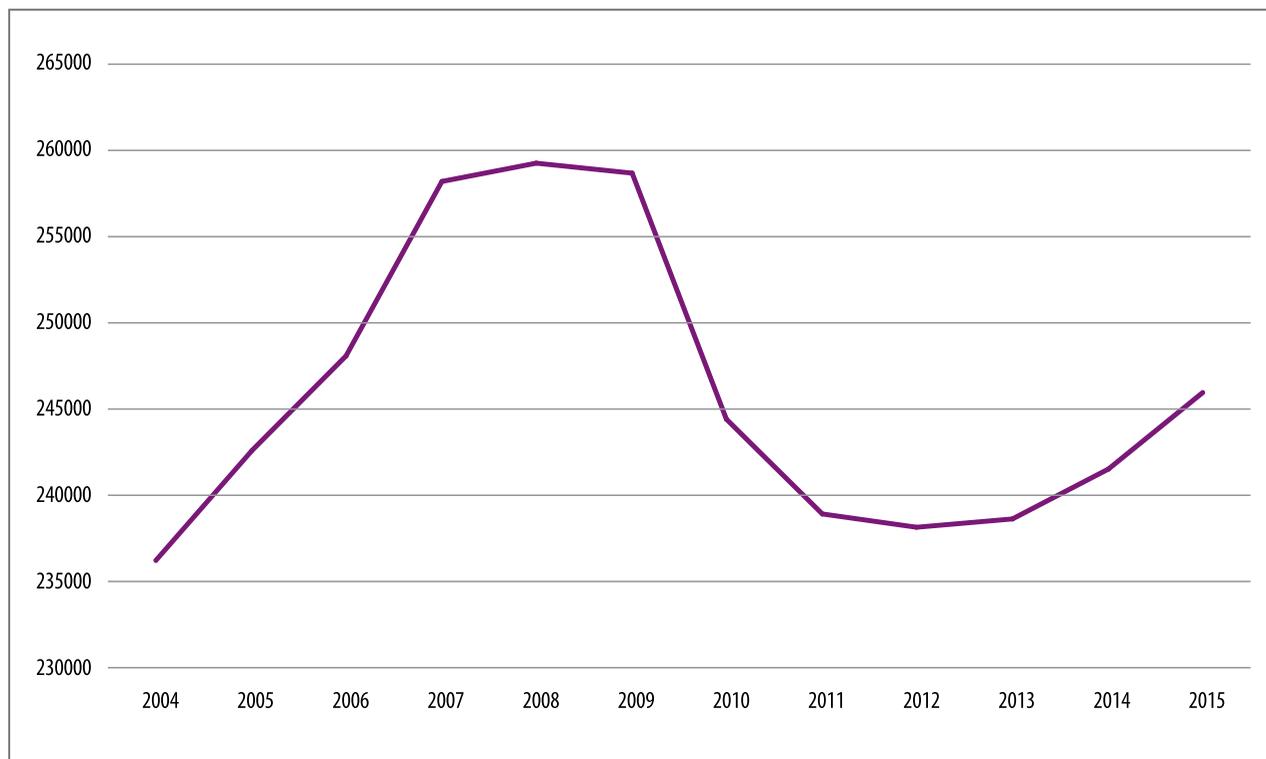
With effect of 0.8 percentage points decline in revenues is neutralized already in the 4th year of implementation and then surpluses incomes with the existing rate. In this case, the reduction in contribution rate would have some negative effect on revenues for a period of 4 years and after that the effects would be positive for both income and employment. The movement of all projected values is shown in table number 11.

From the above stated it can be seen that the height of the effect of this measure on additional employment in the formal sector is crucial for the growth of income. There are several reasons to suggest that the effect of reducing the tax wedge on employment in the formal sector in Republic of Srpska has the potential to be relatively high.

The first reason is that Republic of Srpska is still in the process of transition and has an extremely low rate of em-

ployment, which in 2015 amounted to 35.2% according to the Labour Force Survey.⁶⁷ In Figure No. 6 it can be seen that the number of declared employees recorded a sharp drop in the period 2009-2012 and that only in the last two years it started to recover. In 2015, it amounted to 245,975 of employees and was 5% lower than in 2008.⁶⁸ This suggests that there is potential for positive change in the number of employees in the next period because the process of recovery from the crisis is not yet over.

Figure 6: The number of registered employees in Republic of Srpska



Source: Data base on economic indicators, Investment Development Bank of Republic of Srpska. Taken from: <http://www.irbrs.net/statistika/Indikator-i.aspx?tab=2&lang=cir>, on May 06th 2016.

The second reason is the relatively high tax wedge which in the average gross salary participates with 38.5%, which represents a significant increase compared to the period before February 2011 (when the tax wedge was 34.4%), especially before 2009 (32.7%). In its analysis from 2015, GEA found that the tax wedge in Republic of Srpska higher than the average in the OECD countries. The same case was also in comparison with EU countries: the tax wedge on the average salary and the salary amounting to 67% of the average salary in Republic of Srpska is higher than the comparable average for the EU. The analysis indicated that the minimal reduction in contribution rate (then the Government of Republic of Srpska announced a reduction in the contribution rate by 1.4 percentage points) cannot change the status of Republic of Srpska in terms of the amount of labour taxation at an international level.⁶⁹ This indicates that any possible reform in this regard would make the reduction of the tax wedge with a relatively high initial level, suggesting that such a reform could also have relatively larger impact on employment (compared to a situation with lower initial level of the tax wedge).

Other reasons which we will indicate are the existence of a relatively high level of informal economy with insufficient quality of the work of inspection bodies. More than 63% of employers surveyed within the research on the infor-

67 Republic Institute for Statistics, 2016, "Labour Force Survey, 2015 (previous data)".

68 Data taken from "Database on economic indicators of Republic of Srpska" of Investment Development Bank of Republic of Srpska. Taken from: <http://www.irbrs.net/statistika/Indikator-i.aspx?tab=2&lang=cir>, on May 06th 2016.

69 — Ognjen Đukić, 2015, "Analiza inicijative za smanjenje stope doprinosa u Republici Srpskoj".

mal economy in Republic of Srpska found that they had negative experience in a selective and inconsistent application of the law.⁷⁰ Such an unstable legal environment supports the hypothesis about the possibility of becoming “the return effect”: high tax wedge stimulates informality and informality on the other hand affects the increase in the tax wedge.⁷¹ According to this hypothesis, the reduction of the tax wedge (particularly with the initiative to improve the quality of control bodies) might affect the reduction of the informal economy, and thus the increase of the tax base.

Table 11: Projections of revenues from health insurance contributions with and without reducing contribution rate (and with different effects of reducing the contribution rate to the rate of employment), in million KM

	2016	2017	2018	2019	2020	2021	2022
BASIC SCENARIO - CONTRIBUTION RATE FOR HEALTH INSURANCE 12%							
Revenue from health insurance contributions *	534	545	561	575	589	604	619
Tax basis	4.447	4.545	4.673	4.790	4.909	5.032	5.158
Modified tax basis (in terms of g-1)	-1%	+2,2%	+2,8%	+2,5%	+2,5%	+2,5%	+2,5%
REDUCTION OF CONTRIBUTION RATES FOR HEALTH INSURANCE TO 11%							
(The effect on employment growth +0,3 pp.)							
Revenue from health insurance contributions *	534	504	523	540	558	576	595
Tax basis	4.447	4.584	4.752	4.910	5.073	5.239	5.409
Modified tax basis (in terms of g-1)	-1%	+3,1%	+3,7%	+3,3%	+3,3%	+3,3%	+3,2%
(The effect on employment growth +0,5 pp.)							
Revenue from health insurance contributions *	534	507	529	549	570	591	613
Tax basis	4.447	4.611	4.806	4.991	5.181	5.376	5.576
Modified tax basis (in terms of g-1)	-1%	+3,7%	+4,2%	+3,9%	+3,8%	+3,8%	+3,7%
(The effect on employment growth +0,8 pp.)							
Revenue from health insurance contributions *	534	511	537	562	588	614	641
Tax basis	4.447	4.650	4.885	5.112	5.344	5.583	5.827
Modified tax basis (in terms of g-1)	-1%	+4,6%	+5,1%	+4,6%	+4,5%	+4,5%	+4,4%

* Revenues for the basic scenario for 2016 have been estimated on the basis of the Tax Administration of Republic of Srpska on the revenues collected for the period January-April 2016. Revenues for future period are estimated based on data from the RS Budget Framework Paper for the period 2016-2018 and own calculations.

In terms of financial feasibility of the reforms proposed in this document it should be noted the potential **possibility of obtaining assistance from international financial institutions that would be interested to support this or similar package**. As an example we mention that the World Bank in 2010 found a reduction of social contribution rates as one of the goals of the First programme loan for development policies for public consumption for BiH.⁷²

70 Centre for research and studies GEA, 2015, “Informal economy in Republic of Srpska – causes and recommendations”.

71 World Bank, 2007, “Fiscal Policy and Economic Growth – Lessons for Eastern Europe and Central Asia”.

72 World Bank, 2010, “Public Expenditure Crisis Development Policy Loan – Overview”.

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