The Evasion of Retirement Insurance Contributions in Croatia

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Abstract

The aim of this paper is to investigate the evasion of retirement insurance contributions in Croatia. This problem can be connected to the weakness of the administration and the inefficacy of the competent bodies, to high rates of contributions and a general lack of trust in the public pension system based on intergenerational solidarity. One of the most important determinants of evasion is the benefit deriving from the insurance, that is, the relation between the contributions and the pension. Insured persons who have worked their whole lives and have reached old-age pensions have an unfavourable ratio of contributions paid in and amount of pension received, because funds for pensions have been redistributed to several other categories. After a brief explanation of the pension reform, we draw attention to certain legislative inconsistencies connected with retirement insurance. The paper closes with a proposal for possible measures for the improvement of collection.

Keywords: retirement system, evasion and non-payment of contributions for the pensions system, Croatia.

Introduction

In Croatia, the existing public system of retirement insurance that is financed from current revenue cannot meet its obligations to the large number of retirees. Pensioners individually receive small pensions, and yet the contributions for retirement insurance are very large, which inevitably gives rise to movements into the grey economy and employment on the black markets. The large payments for pension insurance (in Croatia it ranges around 12% of the GDP) could, accompanied by unfavourable demographic trends and the maintenance of the current situation, rise by the middle of the century to one quarter of the GDP. Along with the lack of a clear connection between the amount of contributions and pensions and an adequately efficient control over the collection of contributions, it is easy for payment contributions to be evaded. As there are more differences than similarities in pension systems, it is almost impossible to make general statements about the causes and consequences of the contribution evasion, but a critical analysis of the situation in Croatia can contribute to understanding problems in other countries of Western Balkan and/or post-transitional countries. Some of it has been presented in the article by Stanovnik et al. (2015).

Although there is a very comprehensive literature concerning the causes, features and consequences of tax evasion (Allingham & Sandmo, 1972; Friedland, Maital & Rutenberg, 1978; Feige, 1979; Benjamini & Maital, 1985; Cowel, 1990; Feinstein, 1991; Beron, Tauchen & Witte, 1992; Graeme, 1997; Williams & Martínez, 2014), there has been relatively little attention paid to the non-payment of contributions to the pension insurance system (Yaniv, 1988). A reason for this could be found in the attitude that taxes are used to pay for public goods from which everyone benefits (but no one directly), while the benefit from contributions is much more direct, and so those required to pay are thought to be more interested in the payment. The increasing reliance on and importance (burden)

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of contributions, along with the simultaneous relative reduction of taxation pressure (Messere, 2000), has meant a certain redirection of evasion from taxes to contributions. This is particularly clear if there is no adequate link between contributions and pensions (in Croatian, referred to as *doprinosi i mirovine* by the appealingly symbolic acronym DIM [smoke]) (Mitchell, 1997), if the system is unjust, if the system harbours numerous high pensions received without the payment of any contributions, and if the payment of contributions is not a precondition for the acquisition of pension rights. Thus, there are similarities between tax and contribution payment evasion, but there are also differences, mainly determined by the behaviour of those who are supposed to pay taxes or contributions. While there are some valuable sources regarding tax culture and compliance in transitional countries (Morris & Polese, 2014; 2015), the existing literature does not fully and/or systematically address the issue of non-payment of contributions; in particular, there are insufficient analyses for post-transitional countries. The author tries to shed light on this relatively neglected issue and provides some proposals for improvement.

As long as there is no strong link between contributions paid and pension rights acquired, it is impossible to expect any greater willingness to pay them; however, in order to encourage payment, it is necessary (as with other forms of taxation) to endeavour to reduce the rates, at the same time as expanding the base on which these rates are paid. By including fringe benefits (holiday bonuses, cost of living supplements, travel expenses and so on, or in the form of non-monetary income such as paid life insurance), Hungary, Latvia and Poland have expanded the base on which contributions are paid, so that they no longer look like income tax.

There is also a question of whether non-payment of contributions on behalf of the employee by the employer has consequences for the employee? It seems that the prevailing view in Croatia (also legally codified) is that the employee should not bear the consequences of non-compliance by the employer. In other words, his or her future pension rights should not be affected. This is in stark contrast to the self-employed, for whom pension rights depend exclusively on the payment of pension contributions. However, it has to be admitted that social insurance institutions were never quite comfortable with this, perhaps viewing it as an open invitation for contribution evasion. Countries that tried to harden their position, recognising only periods for which contributions were actually paid as insurance periods, were quickly forced to 'backpedal'. It is equally necessary to provide information about the importance and costs of the public good and to raise awareness that there is no such thing as a free lunch (Friedman, 1975), meaning that everyone has to personally bear an appropriate part of the costs of his or her own retirement rights.

The paper will evaluate the scope of the non-payment of contributions for retirement insurance in Croatia, and will indicate some of the causes and consequences. We will draw attention to some discrepancies in the law and propose possible manners in which they could be reduced. One part consists of a theoretical framework for determining the evasion of contributions. Furthermore, we draw attention to the situation and problems in the collection of contributions in Croatia, particularly regarding the evasion of contribution payment, and a proposal for possible solutions for improving collection. It looks like that in Croatia there is a weak link between contributions paid and the amount of pension, which demotivates the insures to pay contributions and causes the practice of reporting lower incomes. Finally, citizens should be aware that evasion of pension contribution causes underfunded and financially unsustainable pension systems and endangers basic forms of social security.

A theoretical framework for determining the evasion of contribution payment

As with taxes, the age-old question of justice appears in connection with contributions. Should they be paid according to strength or according to usefulness? (Musgrave, 1985). The problems around the (lack of) justice of contributions began to be considered more or less at the same time as the development of universal retirement insurance. Unlike taxes, there are no reductions or exemptions for contributions. If two people have the same wages, but the first person is married and takes care of children, while the second does not, should this breadwinner then pay less until his old age (and receive a smaller pension) and/or pay the same and get a higher pension? What happens if these persons without dependents start voluntarily looking after a parent who is incapable of earning his or her own living? Like income tax, contributions for retirement insurance do not take into account how much the individual has saved for his old age himself. Should contributions be reduced if the person him or herself has saved money? If the answer is yes, should then the amount of the pension be reduced? If the answer to both questions is yes, from the point of view of fiscal justice, it would be correct to determine the amount of contributions according to expenditure for personal consumption, as a replacement for or supplement to income tax. This would be very difficult to achieve in terms of organisation and administration, and would in practice very likely increase the costs of collection of contributions and carrying out supervision, reducing people's willingness to pay them.

Contribution systems have various forms. The most common is the social insurance form, through which a unification of various kinds of risks is achieved, as well as a vertical redistribution of income. In principle, this system enables retirement rights after a relatively short period of insurance for those persons who have attained the necessary age and contributions history. If the basis for the calculation of contributions is wages, it is relatively simple to calculate contributions and pensions. Even if pay changes over the year, or if part of the wage is paid in kind instead of in cash, there are reliable administrative procedures for arriving at a fairly exact calculation (Gruat & Thompson, 1997). The condition is that the income be paid at regular intervals and that the third party (the employer) confirms the correct amount to the competent social security service. It is much more complicated if the income is not made on a constant basis or if it is paid by several employers. Difficulties are still more pronounced in the case of self-employed persons who (often incorrectly) state the income they have made themselves, the result being that this base is unrealistically low for the calculation of contributions, which is a frequent phenomenon in developed countries. In order to eliminate this kind of conduct, it is necessary to set up or reinforce, and properly to equip, labour inspectorates and the services that collect the contributions. The fight against contribution payment evasion is a very complex task that cannot be done without corresponding legal powers.

A crucial question in the decision of whether or not to pay is that of justice and the validity of social norms (Song & Yarbrough, 1978; Lewis, 1979). In contemporary fiscal theory, the viewpoint is prevalent that evasion of taxes and contributions payments is an endogenous variable; that is, the higher the rates of contributions for mandatory retirement insurance, the less people will be inclined to act in accordance with the law and, thus, create greater liabilities for themselves (Mitchell, 1997, Williams, 2011). It is hard to estimate whether there is an analogy between tax and contributions evasion, but it can certainly be believed that there are certain similarities. High contributions are the subject of extensive discussions among experts, entrepreneurs and politicians. Employers think that they increase labour costs and, hence, reduce the competitiveness of firms and of the economy as a whole. Most economists say that the burden of contributions, including those that are paid by employers, is at least in the long term transferred to the employees, who bear it in the form of smaller wages. International comparisons support this kind of point of view. For example, in Denmark, where pensions contributions are low,[1] the total costs of labour are not lower than those in France, where the contributions are very high.[2] In Table 1 we give a review of the most important determinations of fiscal behaviour and the decision of whether to respect the obligation.

1 From 1 January 2000, the employer's contribution was actually abolished, while employees pay it at the rate of 8% of gross wage (International Bureau..., 2016).

2 Since 6 April 2016 new rates have been introduced for Social security contributions (*cotisations sociales*). The employer rate is 8.55.6% of a worker's monthly pay up to €3,128 (C1) for Old-age capped pension and 1.85% on C2 (3XC1), etc. for Old-age uncapped pension (International Bureau..., 2016).

Table 1: The most important determinants of fiscal behaviour and decisions about whether to respect obligations

Factors tending towards a rise in evasion	Factors tending towards a fall in evasion	Source
high border rates of taxes and contributions		Feinstein, 1991; Gaertner & Wenig, 1985; Johnson, Kaufmann & Zoido-Lobatón, 1998; Feld & Schneider, 2010; Schneider, 1994; 2005; Williams, 2011; Bejaković, 2015
higher rates of pension contributions lead to a great reduction of the base on which contributions are paid		Gruber (1995), Bailey and Turner (1998), Rutkowski (2001)
a weak relationship between the amount of contributions and the amounts of the pensions		Manchester, 1997; McGillivray, 2001; Enoff & McKinnon, 2011; Palacios & Rofman, 2000; Vukorepa, 2015
the social environment of the individual – behaviour of friends and persons with a more or less equal level of income		Spicer & Lundstedt, 1976
mental calculations (the kind and source of income is important, i.e., the way in which it is made)		Winnett & Lewis, 1995
the level of income made		Benjamini & Maital, 1985; Erich, Maciejovsky & Schneider, 2001; Williams, 2011
the feeling that the supply of public goods is too large		Gaertner & Wenig, 1985; Cowel & Gordon, 1988; Hungerman, 2014
	a high individual expectation of being caught cheating	Isachsen, Samuelson & Strom, 1985
	the greater likelihood of the offender being caught	Pyle, 1989; Cowel, 1990
	a higher level of awareness and better information about the role of public goods	Csontos, Kornai & Tóth, 1997; Erich, Maciejovsky & Schneider, 2001; Williams, 2011
evasion of pension contributions is bound to rise if such payments are not understood as savings for a secure old age, rather as a tax for which nothing is obtained in return		Feldstein & Samwick, 1996; Manchester, 1999; Palacios & Rofman, 2000; Rutkowski, 2001
political questions and viewpoints about the rate of replacement (average pension as percentage of average wage)		MacKellar & Ermolieva, 1999; Rutkowski, 2001

Source: author's compilation

A system of defined contributions has the advantages of greater transparency, which ought to discourage and reduce evasion, at the same time increasing national savings and encouraging the development of the financial market and institutions. On the other hand, redistribution to the relatively poor is easier in a system of defined benefits, in which administrative and managerial costs are on the whole lower. In a funded system (like that of Chile), through financing the individual bears the entire responsibility for his future pension (although even in this system a minimum pension does exist). However, in most OECD countries, there is a tacit intergenerational agreement that binds those currently employed to pay the pensions of the current retirees, in the hope that their children are going to act in the same way. Experience shows that pension systems based on intergenerational solidarity can become completely ineffective, resulting in high costs without eliminating poverty among the aged (Feldstein, 1997).

Contributions to an unfunded pension system that are calculated on top of pay distort labour supply and forms of salary. Although the connection between the contributions that individuals pay and the rights that they can accordingly claim assumes that the obligatory legal rates of contributions increase the burden of the real border taxation rate, contributions to the pension system are in fact taxes with a considerable amount of loss because of the dead weight of the contributions (loss of prosperity above contributions collected). Feldstein (1997) estimates that losses due to the dead weight of pension contributions in the USA come to about 1% of the GDP, or about a fifth of the total revenue of the pension system. These losses are inevitable because of poor return that characterised the system of intergenerational solidarity. Unlike private pension funds and the pension accounts of individuals, the unfunded system of retirement insurance does not put the money gathered in bonds or securities, but pays the same sums out each month in the form of pensions and other rights. The rate of return that the individual can attain with obligatory contributions in the system of universal pensions insurance is, thus, much lower than what can be obtained in private pension funds or in retirement insurance with direct financing. Those who participated from the beginning of the retirement insurance programme and who are now retired, paid contributions at relatively low rates, but receive pensions (claim the rights) that are financed at much higher rates of contributions, which are in turn a burden upon those currently employed.

A further potential problem arises from the benefit formula and the extent to which individual benefits match individual contributions. We can distinguish between: 1) persons receiving *actuarially fair benefits*, 2) persons receiving an *implicit pension subsidy*, when the capitalised value of their contributions is lower than the expected value of the pension benefits), and 3) persons paying an implicit pension tax, when the capitalised value of contributions is higher than the expected value of the pension benefits (Cigno, 2011). If the benefit formula for the pension amount is redistributive, some will enjoy an implicit pension subsidy and others will suffer an implicit pension tax, which will not motivate the payment of contributions. If the system is underfunded and if the redistribution level of the systems stays the same, transfers from the state budgets will be necessary, potentially increasing fiscal deficits. Thus, the issue of redistribution involves the dilemma of how to share the financing burden more fairly across generations and between the same generations (Vukorepa, 2015).

The evasion of contributions is particularly hard in post-transitional countries (PTC), where there are significant arrears in the payment of pensions, as well as a lack of coordination between governmental bodies and high contributions rates. Heinrich (1997) states the following reasons for the lack of efficiency in the collection of retirement contributions in PTC:

- *Poor administration*. The competent bodies in these countries on the whole did not keep records about the contributions of individuals to the old age system of retirement insurance, hence, it is very difficult or impossible to determine in any precise way what the link between contributions and pensions is.
- *High rates of contributions* and any possible further increases have and will have very unfavourable consequences on employment. The administrative capacity for the collection of contributions is poor.[3] The increasingly important private sector on the whole does not bear the appropriate weight of contributions, while the public corporations are frequently unable to pay their obligations. High rates of contributions redirect economic activity into underground operations. For this reason, with the widespread evasion of contribution payments, the possible increase of the rate of contributions probably would not mean any increase in resources collected.

3 Stanovnik et al. (2015) underlined the importance of efficient administration and collection of pension contributions, which is still lacking in the majority of Central and East Europe states.

- *General lack of confidence* in the public pension system based on intergenerational solidarity. Young workers are being forced to pay a third to a quarter of their gross income into public pension systems that are on the verge of bankruptcy. They do not believe that the existing system will, however, provide them with the corresponding amount of material security in their old age.

These problems *cannot* be solved by reducing pension rights. Reducing pensions is hard to achieve politically, particularly since in most countries pensions have already been reduced in real terms because of inflation and their failure to keep up with pay rises. This is totally opposite to the main task of a pension system: the prevention or alleviation of poverty in old age. Furthermore, problems cannot be palliated by an *increase in the rate of activity among the younger population*. Considering the high rates of unemployment among the young, there is practically no realistic opportunity to solve the liquidity problems of the solidarity system by increasing the rate of activity among the younger population.

The most important change in the pension systems of the post-transitional countries is the shift from interpersonal redistribution (payment for another in the solidarity system) to intertemporal redistribution (payment for one's own insurance in the future). Because of the lack of a clear link between contributions and pension rights, the larger contributions are less likely to be paid and can even bring about disincentives to work and employment. Due to the frequent absence of data about payments that have been made, it is almost impossible to use formulas to calculate pension rights according to contributions paid during the whole working life, which would be an important measure in the prevention of contribution non-payment. At the same time, according to international standards the minimum number of years of contribution needed to claim a full pension is small, and the years in which no contributions have been paid at all are generously counted in. An additional problem is that contributions are paid on the total amount of pay (without any limits), while the maximum pension amount is actually limited. This also encourages contribution evasion, because payment above a certain amount of income does not have any effect on the amount of pension later received. Kesselman wrote:

> *If the system is organised in such a way that there is no connection between contributions that are made and pensions obtained, then contributions start to seem similar to other forms of taxation. The lack of existence of this connection means that contributions are just another way of collecting public revenue.* (Kesselman, 1996)

Again, if there is a weak link between paid contributions and the future amount of pension, there is no motivation to pay contributions. Furthermore, privileged pensions and high contribution rates can lead to the general acceptance of the viewpoint that pension contributions are just a kind of a tax and not a form of savings for old age. For this reason, there is nothing surprising in the fact that one of the most important assignments of the pension reform in PTC is the need for a stronger link between contributions and pensions (so that the contributions really should be the base of the future pensions) and the need to keep personal accounts about contributions paid in. The objective of pension reform and the development of a capitalised system is to provide greater personal liberty and choice to those insured, while at the same time underwriting the set minimum pension. At the national level, this should encourage the development of a market for capital, create incentives for investment and savings, and limit the non-payment of contributions.

Moreover, an important issue for improving contribution collection is the unification of the authorised service for the collection of contributions and the tax administration. Usually, the tax administration has greater knowledge and experience in the collection of public revenue, greater ability to obtain the necessary knowledge about income, assets and the tax obligations of insureds, and since the administrative costs and compliance costs would be lower. Enoff and McKinnon (2011) detect several important preconditions for successful contribution collection:

(i) the organisational location of the collection function;
(ii) the age (or maturity) of the social insurance programme;
(iii) the degree of coverage and size of the labour force;
(iv) the degree of automation;
(v) the system and extent of coordination with outside organisations;
(vi) the application of a process of continuous evaluation and adjustment of collection policies and practices; and
(vii) social security 'culture' in a country.

With regard to the first factor – organisational location of the collection function – it deals with the question of who is responsible for the collection of pension contributions: the social insurance institution or the tax authority? Here, a generally accepted view among experts (Bailey & Turner, 1998, McGillivray, 2001) is that combining the collection of social security contributions and taxes can improve compliance and result in a more efficient use of resources. A similar position has also been stressed by Ross (2004), who believes that: "in principle, integration of collection activities will work best when both the social insurance agency and the tax administration are both modernized so that the task of integration can be narrowly focused on the transfer of collection functions." Barrand, Ross and Harrison (2004) document the overall discernible trend of moving from a parallel collection system (with the social insurance institution responsible for contribution collection and the tax authority responsible for tax collection) to a unified collection system, with the line tax authority assuming responsibility for the collection of contributions and taxes.

Mandatory participation in a funded system of retirement savings would theoretically mitigate the problems of moral hazard (conduct of an individual defined under the influence of the fact that he is insured), adverse selection (some forms of insurance are bought precisely by individuals who will very probably have disproportionate benefit from this insurance) and free-riding (in which an individual enjoys benefits of public goods that he has not paid for, which have been paid for by someone else). There is a mistaken belief that the development of funded retirement savings and/or voluntary retirement insurance will be an adequate precondition for stopping the evasion of payment contributions. In such conditions, individuals can believe that it is enough to pay the lowest pension contributions or not pay them at all, because the state or the society will have to take care of those who do not have adequate material resources when they are old anyway. Apart from that, in firms (or branches of industry) that perform badly and/or do not operate within the terms of the law it can easily happen that an employer does not pay the contributions that have been deducted but instead keeps them for himself for a certain time or appropriates them entirely. These dangers are lower in a funded pension system, but this does not mean that they disappear entirely. Of course, achieving what is possible in theory requires good legal regulation and the objective supervision of pensions and investment funds, free from political pressures and influences from interest groups.

The next part of the text is dedicated to the situation in Croatia – first to pension system reform and afterwards to the evasion of pension contributions.

Reform of the pension system in Croatia

The Croatian pension system inherited excessively permissive eligibility criteria, which were further relaxed to build a social safety net. The system was repeatedly abused to grant favours to beneficiaries and was simultaneously squeezed to cut public spending. The pension system has faced the problem of collecting funds for pension benefits for a long time. As the share of contributions in pension revenues has diminished, revenues from the budget have become increasingly important. The share covered by contributions fell from 97% in 1991 to 53% in 2014. Thus, about 47% of the total monthly revenues needed for the payment of pensions come from the budget, causing pension expenditures to become one of the most important generators of the Central and also the Consolidated National Budget deficit. The total expenditure for pension and disability insurance is around 12% of the GDP, and rising.

The first reform of the pension system (the so-called small pension reform) in 1998 was directed towards better control of pension-related expenses. The new act gradually increased the retirement age (to 65 years for men and 60 for women) until 2008. The formula for calculating the pension was changed, so that by 2008 the entire work life span will be taken into consideration and not only the best consecutive 10 years (Anušić, O'Keefe & Madžarević-Šujster, 2003). This should also be a stimulus for paying contributions or at least not evading payment.

The Government started designing the big pension reform in the second half of 1995. The existing PAYG system was replaced by a mixed system in the beginning of 2002, consisting of a public PAYG system (1st pillar) and a mandatory fully funded system (2nd pillar). The second pension reform, called 'the great reform', which was defined with the Mandatory and Voluntary Pension Funds Act (OG 49/99) and the Pension Insurance Companies and Benefit Payment Based on Individual Fully Funded Retirement Savings Act (OG, 106/99), is based on the three pillars:

- The first pillar is a mandatory Pay-As-You-Go public pension system and all insured people should be included in the first pillar – employees, self-employed and farmers. All insured persons pay 15% of their gross monthly income to this system.
- The second pillar is a mandatory pension system, based on individual capitalised savings. When introduced in 2002 it was mandatory for all those aged under 40 to contribute 5% of their gross monthly income (or a quarter of their pension contributions) to privately managed pension funds. Those between 40 and 50 could opt either to remain in the PAYGO system or to move part of their contributions to the second pillar. Current retirees and older insured persons fully remain in the first pillar.
- The third pillar is a voluntary pension insurance system based on individual capitalised savings for those who want even more insurance against the risks of old age, disability and death. The insurance operates according to the same principles as the second pillar with one exception – the insured person decides on the amount of the contribution he/she desires to make in the pension funds.

Despite the reform, the pension system suffers from a number of inefficiencies. These include a large number of early retirees, an excessively generous system of early pensions for arduous and hazardous professions and numerous special pension schemes. In addition, it is grappling with the consequences of the past explosion in disability retirement. As all types of pension systems are actually long-term obligations, one should not neglect the importance of retaining and/or improving the confidence in the pension systems through its fairness, stability and predictability (Vukorepa, 2012), which is not fully respected in Croatia (Nestić et al., 2011, Nestić & Tomić, 2012). All these factors contribute to the image of an unfair pension system, which leads to demotivation of contribution payment and the evasion of pension contributions.

Evasion of pension contributions in Croatia

Evasion and unwillingness to pay contributions to retirement insurance are very dependent on the benefits expected from the system. One can conclude who the winners and losers in the system are. The retirement insurance redistributes revenue among individual age and income groups (intergenerational[4] and intragenerational[5]), and for this reason it is necessary to study the different relations between the amount of contributions paid and the pension amounts received at the level of entire generations.

With respect to age structure, women receive more than men,[6] while according to kinds, disability[7] and family pensions[8] are set in a more favourable way than old age pensions. The same goes for pensions with a short contribution history, early old age pensions, pensions with privileged seniority, and those that can be claimed according to special regulations. Then there are great differences among various insurance bases.[9] According to the new regulations, rates of contributions[10] for workers and tradesmen are the same, while farmers pay a lower rate of contribution, the difference being made up by the national budget. Those insured persons who have worked their whole lives and have reached old age pension have the worst ratio between contributions and pensions, because there is a poor relation between contributions paid and the amounts of pensions, that is, there has been a major distribution favouring other categories.

Madzarevic-Sujster (1997) considered the forms and extent of contribution payment evasion. This author explained that in Croatia it most often involves declaring lower tax bases, the payment of wages via banks, unions or in kind, hence evading the payment of taxes and surtax. The amount of unpaid taxes and contributions is very much conditioned by the source of the income made, that is, by the industrial sector in which the person is employed. Assuming that the non-payment of taxes and contributions is less common in large firms (because of the extent of operations, the need to run complete accounts and non-cash payments, and the fact that until recently they were either publicly owned or in mixed ownership), and that the earnings of self-employed persons and entrepreneurs are larger than those of ordinary employees, the author carried out two simulations.[11] Madzarevic-Sujster

4 In the intergenerational redistribution, older generations (retiring in the first 30 or so years after the introduction of the comprehensive retirement system) had a positive transfer, because they paid contributions at relatively low rates and have pensions that are financed from the much higher rates of contributions now burdening those currently employed. The present and future generations will have negative life transfers, because they pay high contribution and will have a level of pension lower than that of the former generations (level of pensions as against wages).

5 In the intragenerational redistribution for the recently retired and those who will go into retirement in the future, the principle in general holds: the higher the earnings, the lower the benefit from retirement insurance.

6 According to former regulations, women could get old age and early old age pensions sooner than men and with a shorter contributions history, and they live on average longer (about 4 years), so for women the ratio between contributions paid and pensions received was up to 30 to 40% more favourable. In the new regulations, the relation between pensions and amounts of contributions is still better for women than for men, because women have a lower age limit for old age and early retirement, but the percentage difference is smaller, hence they receive benefits for a longer period of time.

7 This partially makes up for the fact that an insured person, because of incapacity for work that has arisen, has not worked the whole of his or her working life.

8 Family insurance is set in the range of 70 to 100% of the pension of the deceased insurance holder and derives from the principle of mutuality and solidarity, and the insurance against the risk of the family's breadwinner.

9 Employees paid about 50% more than tradesmen for the same pension, and more than double the amount paid by farmers, because the rates of contributions for tradesmen and farmers are much more favourable than for employees. There are also some retired persons (like Croatian veterans of the last war and the family pensions of defenders who were killed, set according to the pay for the relevant rank) whose pensions are not defined according to contributions, and the amounts of contributions thus cannot be compared with pensions.

10 At the same time, the unification of pension bases for various categories of insured persons began, and in the future there should be increased activity in this area.

11 In the first simulation, the amounts of the wages in small and medium-sized firms were equated with the wages paid out in large firms. According to this simulation, tax evasion and contributions evasion came to 3.70% of the GDP in 1994, 4.34% in 1995, and 4.65% in 1996. In the second simulation, it is assumed that for the sake of some kind of social protection the real measure of employment in Croatia can be found in the figures about active insured persons at the disposal of the then Retirement and Disability Insurance Fund, that the monthly receipts of active insured persons were equivalent to the average receipts in the economy (lower than receipts in the big companies). Thus, the difference between the actually paid and potential contributions and income tax, evasion of contributions and income tax as a percentage of the GDP was 2.76% in 1994, 3.71% in

(2001), according to certain assumptions, carried out similar simulations for the period of 1994 to 2000. Using the first simulation, she estimates that the amount of evasion of income tax and surtax grew from 1.5% of the GDP in 1994 to 2.7% in 2000, while according to the second simulation (after an adjustment for writing off contributions and the evasion of contributions) evasion of taxes and contributions as a percentage of the GDP rose from 4.3% to 5.9%. The first simulation gives the lower limit for the evasion of direct taxes and contributions, and the second simulation gives the lower limit of the estimate. Henceforth, to Madzarevic-Sujster (2001), there were no estimations of tax and contribution evasion in Croatia.

Zuber (2011) wrote about the problems of collecting contributions for pension insurance and how they are statistically monitored.[12] She also referred to the unequal position of insured persons: for those whose employment is the basis of retirement insurance, contributions paid are not a condition for being able to claim insurance seniority, while persons who are themselves liable to pay, the contribution paid is in fact a condition for being able to claim insurance seniority. The contribution rate for mandatory pension insurance in Croatia is 20%. All insured persons pay the same rate, but for persons insured in the second pillar the contribution is divided into two parts: 15% for the first and 5% for the second obligatory pillar. The bases for the payment of pension contribution are stipulated variously for different groups of insured persons, in the range of 0.35 to 6 average salaries obtained in the period of January-August of the previous year. Linking bases for the payment of pension contribution with the statistically recorded average wage insures the automatism of determining the pension amount. Although the contribution rate is identical for all insured persons, an unequal contribution base for calculating pension contributions causes different fiscal burdens to various groups of insured persons. Her survey shows that the same amounts of income are burdened differently with pension contributions. Employees are the biggest group of insured persons and in the analysed period from 2003 to 2007, for each 100 units of income, they paid on average HRK 24.54 mandatory pension contributions. The self-employed are significantly less burdened with pension contributions. In the same period, self-employed taxpayers of personal income tax paid on average HRK 18.56 mandatory pension contributions for each 100 units of income paid, while self-employed taxpayers of company income tax on average paid only HRK 5.00 mandatory pension contributions. In these circumstances, the self-employed pay only one third of the total obligation for pension contributions. The share of self-employed persons in the structure of revenues from pension insurance contribution is disproportional to their share in the total number of insured persons. In 2008, the share of self-employed among the total number of insured persons was 8.6%, while they accounted for only 1.7% of total revenues from pension insurance intergenerational solidarity.

The survey shows that in the previous period the Tax Administration obtained better results in collecting contributions for the 1st pillar, compared to contributions for the 2nd pillar. For the period of 2002 to 2007, the estimation of non-realised revenues from pension contributions for the 1st pillar was in the range of 8% to 19% of collected contributions. In the mentioned period for the 2nd pillar, the estimation of non-realised revenues from pension contributions was on average 32% of the total sum that should be paid. For the second pillar a little bit more than two thirds of all contributions that should have been paid on personal accounts of insured persons have been collected.

1995 and 3.81% in 1996. However, one has to add to this figure the unreported workers, who cannot pay social security, as well as the assumption that about 35% of all officially unemployed actually work in the EU, which would very likely result in the same percentage of tax evasion as in the first simulation.

12 Zuber states that in Croatia the figures about the lowest base for the payment of contributions and the amount of insureds who pay contributions on the lowest base are known, while there is no information about whether these persons have, from the same payer, any income from profit sharing or dividends, which in many private firms is the cheapest and most common manner of paying out wages. There is also no information about the amount of part-time work, and there are no indicators about the extent of occasional and temporary jobs, as they are called. The number of retirees is known, but it is not known how many pensioners make money in addition to their pension, or how much the annual sum of such earnings per pensioner might be on average.

From 2002, the Tax Administration took over the duties and authority linked to the collection and payment of both pension contributions. This includes contributions for the intergenerational solidarity system, which are paid by the state budget as public income. It also includes contributions for the individual capitalised saving, which is paid to the private accounts of pension insured persons as personal property through the state agency (REGOS). The survey shows that in the analysed period the tax administration has achieved better results in the collection of benefits for the first pillar in comparison with the second pillar of obligatory insurance. The effective paid contribution rate for the second pillar is only 3.7%. It is especially worrisome that for more than 250.000 insured persons in the second pension pillar, contributions are paid irregularly. For this reason, Zuber (2011) believes that it is necessary to analyse in more detail whether it is justified to retain some of the existing solutions in the system of paying contributions, as well as the position of employed persons who do not receive wages or whose wages are paid irregularly.

In brief, in Croatia there are some obvious winners and losers in the pension system, the amount of unpaid tax and contributions is conditioned by the source of the income, while unequal contribution base for calculation of pension contributions causes different fiscal burdens to various groups of insured persons. All these factors lead to the evasion of pension contributions. As an important positive step linked with the introduction of the mandatory fully funded private pension pillar, there is an obligation of mandatory recording of individual contributions for both pension pillars. In the following, there are some proposals for improving contribution collection.

Proposal of possible approaches to improve collection

The reason for the non-payment of contributions in Croatia can be found in the incomplete or inadequately clear – or actually contradictory – definitions in the laws and by-laws, and the frequent changes in legislation. Thus, in line with the mentioned warnings, it is necessary to reconsider the following legal provisions:

- The definition of wages as the basis for the calculation and payment of contributions and for being able to claim pension rights in the Retirement Insurance Law.
- The justification of linking the basis for the payment of retirement contributions to the basis for the payment of tax only in the category of insured persons, who have their retirement insurance pursuant to their employment.
- There is a need to change the viability of a solidarity system in which the obligation of absolute solidarity is prescribed only for employed insured persons, while other categories of insured persons (like self-employed) pay retirement contributions in amounts that are not directly related to their monetary receipts from their occupation.
- The need to link the payment of contributions and the amount of pensions. This would stimulate collection, financial discipline and a greater interest of insured persons in the payment of their contributions, and lift the burden of contributions that has been shifted onto those who do pay.

It is necessary to systematically and resolutely halt the practice of allowing exceptions or exemptions from the payment of contributions. In connection with establishing fiscal sustainability and increased efficiency, the World Bank has long stressed the need for Croatia to do away with exceptions to or exemptions from the payment of contributions to the pension and health funds that in the past were used to bail out firms in financial difficulties.

More up-to-date and effective collection of contributions is needed, as is keeping better records about amounts paid, arrears, and about pensions paid. For the sake of more effective supervision, it is necessary to seriously reinvestigate the low manning levels of the employment inspectorate, improve conditions of work and earnings, the possibility of further training, as well as to tighten the question of responsibility for the expert, professional and conscientious performance of inspectorial work.

Through penal measures it is necessary to discourage the non-payment or irregular payment of contributions, and consistently and rapidly to try and penalise contributions evaders. Hence, it is necessary to provide the preconditions for greater promptness in the courts, as well as consistency in the handing down of penalties.

It is important to develop a general level of awareness that the non-payment of contributions is not a heroic act of an individual or a manner of righting a wrong imposed by the state, but the shifting of the obligation of payment to another person.

Finally, but equally importantly, there is a need to improve the system of giving information and general knowledge about public finances, that is, about the impossibility of maintaining the existing state of affairs in retirement insurance. Without improved information and general knowledge about the financial problems of the pension system in the reform of the system (and the inevitable reduction of rights for some categories of insured persons) considerable political resistance can be expected, likely to hold up and perhaps even block changes.

Conclusion

If contributions for retirement insurance are understood as a tax, and not a form of insurance for the future, this can encourage working people to withdraw from the official economy and work in the unofficial one or, alternatively, to keep working officially, but pay the lowest possible contribution, by reporting an income lower than that actually made. In post-transitional countries, like Croatia, because of the absence of democratic, economic and regulatory institutions, the lack of experience in the payment of taxes, with simultaneous large discretionary rights by officials and a profligate government, it is very likely that there will be avoidance and evasion of taxes, corruption, extortion and other illegalities, which is almost always accompanied by the non-payment of contributions for retirement insurance. At the same time, the introduction of a capitalised system of pension insurance is no guarantee that the avoidance of the payment of contributions will be totally prevented.

A close link between contributions paid and the amount of a pension can certainly increase the readiness to pay contributions, reduce the practice of reporting lower incomes, and be an important factor in the collection of contributions. To be able to claim pension rights entails the obligation of paying contributions. Croatia has already done quite a lot by collecting pension contributions via the Tax Administration, extending the accounting period for the calculation of pensions and the development of the capitalised system of retirement insurance; however, for the sake of more successful collection of contributions it will have to implement, consistently and without any procrastination, the appropriate measures, some of which we have put forward in this paper.

Pension insurance is a long-term concern and effects of realised measures are not likely to be seen in a short period. In the combined model of pension, insurance measures must be planned integrally, not just for both pension insurance systems, but also in respect to the totality of the social and economic conditions. Although the second pillar by its nature insures a stronger link between paid contributions and pension rights, there is also a necessity to enhance the mentioned link between paid contribution and the amount of pension in the first pillar. This can be achieved by gradual increase of legally stipulated retirement age as a precondition for obtaining pension rights, the stronger stimulating of later retirement and elimination of financial burden of privileged pensions. Additionally, the pension insurance system based on intergenerational solidarity should be complemented by a higher level of protection for insured persons, who due to the legal regulation or by their own decision, are insured in the second pillars. The successful fulfilment of the obligation to pay retirement insurance contributions can be a large contribution to the implementation of the rule of law and order and respect for the law in Croatia. Despite the differences in the pension systems, such analysis on the evasion of retirement insurance contribution in Croatia can be a blueprint for similar future surveys in other post-transitional countries in the South and Central Europe and/or Western Balkan.

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