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## Some Characteristics of the "Crisis Tax" in Croatia

**Ivica Urban, MSc**

At its fourth session held on July 24, 2009, the Government of the Republic of Croatia proposed a law on a special tax on salaries, pensions and other income<sup>1</sup> (hereinafter: special personal income tax, SPIT), recently referred to in the public as the "crisis tax" or "solidarity tax". The purpose of the tax is to collect additional revenues necessary to reduce the central government budget deficit in a situation of a GDP decline. In this press release, we analyse some characteristics of the tax and calculate the increase in the tax burden for various levels of income.

The base of the SPIT is calculated by deducting the paid contributions, insurance premiums, withheld personal income tax (hereinafter: PIT) and surtax on PIT from a salary, pension or "other income"<sup>2</sup>. Two tax rates, 2% and 4%, are applied to the tax base thus obtained. If the base is lower than, or equal to 3,000 kuna, the tax will be 0 kuna.<sup>3</sup> In the case of tax bases between 3,000 and 6,000 kuna the tax amounts to 2% of the base, and in the case of tax bases above 6,000 kuna, the SPIT equals 4% of the base.<sup>4</sup>

### Personal income tax and special personal income tax

The special personal income tax is similar to the personal income tax<sup>5</sup>, but there are some differences of which we will only mention the most important ones. First, the SPIT is not levied on income from self-employment, property and property rights, or income from capital and insurance. Second, under the SPIT scheme, taxpayers are not differentiated by the number of children and supported family members, or some other characteristics, as is the case with the PIT scheme which applies different personal allowances and other tax base and tax liability reductions. The third difference relates to the method of tax liability assessment: in the case of the PIT, the base (calculated as income net of personal allowances<sup>6</sup>) is divided into portions and each portion is multiplied by a separate rate. The products obtained are added together to establish the total tax liability. In the case of the SPIT, taxpayers are classified into three groups according to the tax base amount, and then separate rates (2% and 4%) are applied to the bases of the second and third groups respectively.

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<sup>1</sup> The law proposal is available at [www.vlada.hr](http://www.vlada.hr).

<sup>2</sup> The definition of «other income» is given in the Income Tax Act (OG Nos. 177/2004 and 73/2008, Article 32). In simple terms, it covers various kinds of income from part-time and contractual work.

<sup>3</sup> We could say that the rate applied to the base in such a case is actually zero.

<sup>4</sup> Interestingly, the proposed law does not suggest which rate is to be applied to a base which equals exactly 6,000 kuna.

<sup>5</sup> See the Personal income tax Act (OG Nos. 177/2004 and 73/2008).

<sup>6</sup> The basic personal allowance, personal allowance for children and supported family members, and allowances for housing needs, health care costs and donations made.

## More income means less income?

The manner of tax rate application in the case of the proposed tax causes an anomaly, promptly detected by algebraic minded observers. To use the professional jargon, we are talking about a marginal tax rate exceeding 100%, which is normally avoided in income taxation and as such not applied in the case of our PIT either. What does it actually mean? A marginal tax rate (MTR) is the ratio of tax increase to income increase. Let us illustrate this by an example. If a taxpayer's income goes up from 1,000 kuna to 1,005 kuna (by 5 kuna), and his tax liability from 200 kuna to 201 kuna (by 1 kuna), the MTR equals 20% ( $1/5 \times 100\%$ ). If the MTR is lower than 100%, an increase in income results in a *rise* in disposable income (income net of taxes). In such a case, it pays to have higher income. However, if the MTR exceeds 100%, *higher income* will finally result in *less money* (!). In other words, the tax will eat up the entire additional profit and even more than this.

A well-designed income tax is expected to ensure that the MTR never exceeds 100% for any tax base level. However, there are two cases in which the SPIT induces a MTR over 100%, i.e. for tax bases amounting to 3,000 and 6,000 kuna. Specifically, if your tax base is 2,999 kuna, the special tax will amount to 0 kuna and your after-tax income will be the same, 2,999 kuna<sup>7</sup>. On the other hand, if your tax base increases by 2 kuna (to 3,001 kuna) the resulting tax goes up to 60 kuna, reducing the after-tax income to 2,941 kuna or 58 kuna less than before the base increase. Hence, a 2-kuna increase in the tax base results in a 58-kuna *reduction* of the after-tax income. The similar applies to the following example. An increase in the tax base by 2 kuna, from 5,999 kuna to 6,001 kuna, leads to a pickup in the tax amount by 120 kuna. In other words, for certain income intervals, lower income is more advantageous than the higher one.

Closely linked to this is the theoretical issue of *reranking*. It is generally agreed that fiscal system should reduce income differences among individuals. However, most people also accept the idea that the redistribution within the fiscal system must be such as *to maintain the individuals' ranks* on the income scale. If a Person A had higher income than a Person B before fiscal intervention (i.e. taxation or receiving a government transfer), then the Person A's income should remain higher after the fiscal intervention. Otherwise, reranking takes place, and this is exactly what happens in the new special-tax-on-income scheme. Reranking will, for example, occur for a Person A with a tax base of 5,990 kuna and a Person B with a tax base of 6,114 kuna. The after-tax disposable income of the Person A will amount to 5,870 kuna, i.e. 0.76 kuna (76 lipa) more than that of the Person B.

Reranking may be caused by tax rate schedules, but not only by them. At the beginning, we mentioned another two differences between the SPIT and PIT, relating to personal allowances and the treatment of various types of income. These two income taxation criteria also influence reranking. Leaving aside any detailed analysis, let us only note the following: The PIT provides different treatment of taxpayers, depending on the number of children and supported family members. Consequently, of two persons with equal income, the person with more children and supported family members will pay less income tax. However, the SPIT does not draw such distinctions. Moreover, the PIT tries to provide equal treatment for various sources of income, by obliging taxpayers to pay an equal amount of tax on each additional kuna, irrespective of the type of income<sup>8</sup> (from salary, pension, contractual work, small business, rentals, etc.), whereas the SPIT only provides equal treatment for salaries, pensions and "other income".

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<sup>7</sup> For better illustration, we assume that the insurance premiums paid are zero. However, the following conclusions also apply if there are insurance premiums.

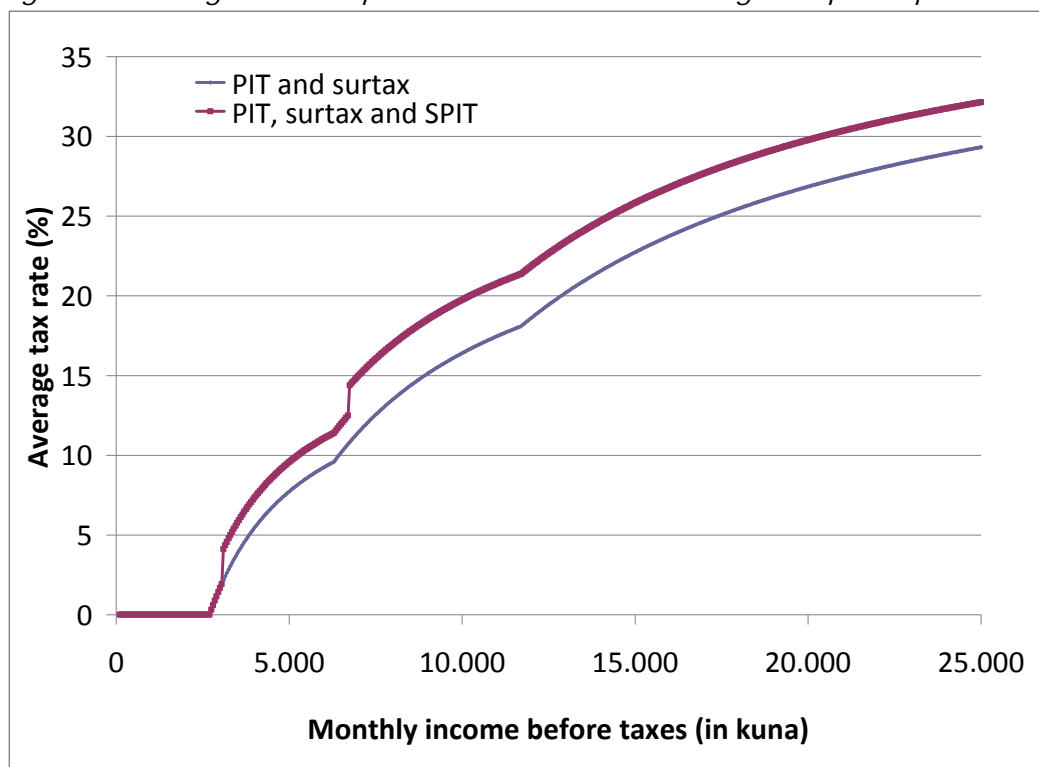
<sup>8</sup> However, it should be noted that the current PIT often deviates from this rule. Examples for this are some types of income taxed at special rates lower than the two highest marginal tax rates, 35% and 45%, which need not be stated in the annual tax return. These rates differ for each type of income.

## Tax progressivity

A hot topic of public debates has been the so-called vertical equity of the fiscal system. The question of whether "the poor" profit from "the rich" or it is the other way round, is raised almost every day, and particularly at the time of state budget revisions. Our contribution to this debate will be the calculation of an average tax rate for the following group of direct taxes: income tax, surtax on income tax and special tax on income. We wish to establish the following: (a) What is the average burden on various levels of income caused by these taxes? (b) Does the average tax burden increase with income, i.e. is this "tax subsystem" progressive? and (c) We wish to compare the situations prior to and after the introduction of the SPIT.

As an example we will take a taxpayer earning salary and using personal allowance for a single child and having his permanent residence in a town which applies a surtax rate of 12%. The basic personal allowance stands at 1,800 kuna and the additional personal allowance for the child amounts to 900 kuna. The taxpayer enjoys no other form of relief. The X-axis on the graph (Figure 1) shows monthly receipts before income tax and after the payment of social contributions<sup>9</sup>. The average tax rate (ATR) is the ratio of total tax to income. We analyse two ATRs: (1) for the tax burden consisting of the PIT and surtax (the blue (thin) curve), and (2) for the tax burden from (1) increased by the SPIT (the red (thick) curve). Hence, each income on the graph is allocated an appropriate average tax rate for the situations prior to and after introducing the SPIT.

Figure 1. Average tax rate prior to and after introducing the special personal income tax



Note: The calculation relates to a salary-earning taxpayer with a single child; the surtax rate is 12%.

First it should be noted that in both cases the ATR increases with income: the tax burden on taxpayers with higher income is relatively heavier. Thus, the total tax is progressive both prior to and after introducing the SPIT.<sup>10</sup> For all levels of income, the red (thick) curve

<sup>9</sup> Social contributions paid by employees are not included in income subject to PIT.

<sup>10</sup> For progressivity of PIT in Croatia, see *Newsletters* of the Institute of Public Finance, available at: [www.ijf.hr](http://www.ijf.hr).

indicating the ATR of total tax, i.e. the sum of the PIT, surtax and SPIT, lies above the blue (thin) curve representing the ATR of the sum of the PIT and surtax (i.e. exclusive of SPIT). This means that the new tax increases the average tax burden on all taxpayers.

The largest increase in tax burden is observed among taxpayers whose income exceeds 6,700 kuna - they lose 3.5% of income due to new tax. A slightly lower burden increase, by about 2% of income, will affect taxpayers with income between 3,700 and 6,700 kuna. We should note that these limits depend on the amount of personal allowance, and here they are only calculated for our sample taxpayer.

The anomaly discussed in detail in the previous sections can also be detected while comparing the two average tax rates in Figure 1. According to the red (thick) curve, for income amounts between 3,100 and 6,700 kuna, the ATR "leaps vertically" by about 2% (a 1 kuna increase in income results in a 2% decrease in disposable income). However, this is not the case with the blue (thin) curve, because, as already said, due to its structure, the income tax avoids marginal tax rates above 100%.

## **Conclusion**

The proposed special tax on salaries, pensions and other income is fairly different from the current personal income tax and it lacks some of its qualities. Here we analysed the new tax's feature of causing marginal tax rates above 100% on two levels of income, which leads to reranking of taxpayers on the income scale. Reranking is usually considered as inappropriate, both intuitively and theoretically. Additional reranking will take place, because the SPIT does not take account of personal allowances for children and supported family members, and excludes certain types of income from taxation.

The special tax on personal income increases tax burden for all taxpayers whose income exceeds a certain limit. Thus, persons with lowest incomes continue to be protected, as they pay no taxes on income (PIT, surtax and SPIT). The tax burden on the "middle class" increases by 2% of income, whereas taxpayers with higher income are burdened by an additional 3.5% of their respective incomes.