PRESS RELEASES

Between the hammer and the anvil: what about wages funded by the general government budget at the time of the corona crisis in Croatia?

SLAVKO BEZEREDI, VJEKOSLAV BRATIĆ, JOSIP FRANIĆ, IVICA URBAN
Institute of Public Finance, Zagreb

The fiscal effects of a hypothetical temporary reduction in gross wages financed by the general government budget are "relatively" modest (between 0.38 and 1.22% of GDP), but the consequences due to the impact on key economic indicators (GDP, budget revenue, and indirectly, the deficit and public debt) can be large and lasting. However, the current situation is a threat to the economy and public finances, but at the same time an opportunity for urgently needed structural reforms, selective and well-thought-out cuts, and the reorganisation and optimisation of the Croatian public sector.

The strong decline in economic activity caused by the coronavirus pandemic puts to the test the budgets around the world. The Croatian public finance system is not an exception in this respect and, therefore, it is to undergo numerous and painful changes. As one of the measures to mitigate the expected (and quite possibly, drastic) growth of public debt, a reduction of public sector wages is increasingly advocated in the public. In addition to controlling public spending, advocates also call for solidarity with businesses and private sector employees who are already suffering from significant damage.

Although these requirements seem rational, it is necessary to carefully evaluate all pros and cons of their realisation, bearing in mind the optimality and the social justification of the measure. Given that there are no concrete analyses so far, this paper, based on four hypothetical scenarios, seeks to answer the key questions regarding the short-term financial effects and long-term consequences of a possible temporary reduction of gross wages for general government employees.

The Tax Administration database, which provides insight into key data for 1.6 million employed persons in Croatia, including gross wages and the main activity of the employer, was used to assess direct financial effects.[1] Information on the ownership structure of the institutions where the persons are employed is not available, and therefore some approximations have been made. In particular, we took into account the following sections (according to NKD 2007; National Classification of Activities), in which the government is the predominant employer (i.e., budgetary and extra-budgetary beneficiaries):

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[1] As the latest available data is for 2018, all gross wages were corrected upwards by 5% to reflect their growth in the 2018-2020 period.

| 84 | Public administration and defence; compulsory social security |
85	Education
86	Human health activities
87	Residential care activities
88	Social work activities without accommodation.

The analysis does not include employees of public companies and local public utility companies because these persons cannot be accurately identified in the database. However, since a possible reduction in their salaries would require coordinated action by a range of institutions, it is difficult to expect that such a scenario would be feasible in practice anyway.[2]

The hypothetical simulation scenario R1 includes all 356 thousand employees in the above activities, while the hypothetical scenario R2 excludes from the R1 scenario employees who are engaged in combating the epidemic. In this manner, 94 thousand employees in the following classes of activity are excluded:

8422	Defence activities
8424	Public order and safety activities
8610	Hospital activities.

Both hypothetical scenarios assume a reduction of employee gross wage at the progressive rate, which was calculated as a function of the gross wage. This rate is 0% for wages up to HRK 4,500, after which it gradually rises to a maximum of 40% for gross wages above HRK 36,500 (Graph 1). The increasing rate is justified by the principle that lower-income persons spend more of their income to meet "necessary needs". Because of this, the employees with the lowest gross wages in these scenarios bear zero or very low burden. However, in order to achieve some budgetary savings, it is necessary to place a greater burden on higher-paid persons, who are presumed to be able to meet their basic needs in times of crisis in spite of much larger reductions of gross wage. The parameters of the reduction rate function (slope of the curve and the maximum rate) are arbitrarily determined and the hypothetical scenarios only serve as an illustration. One can also imagine a number of different gross wage reduction functions.[3]

Graph 1. *Function of the gross wage reduction rate in scenarios R1 and R2*
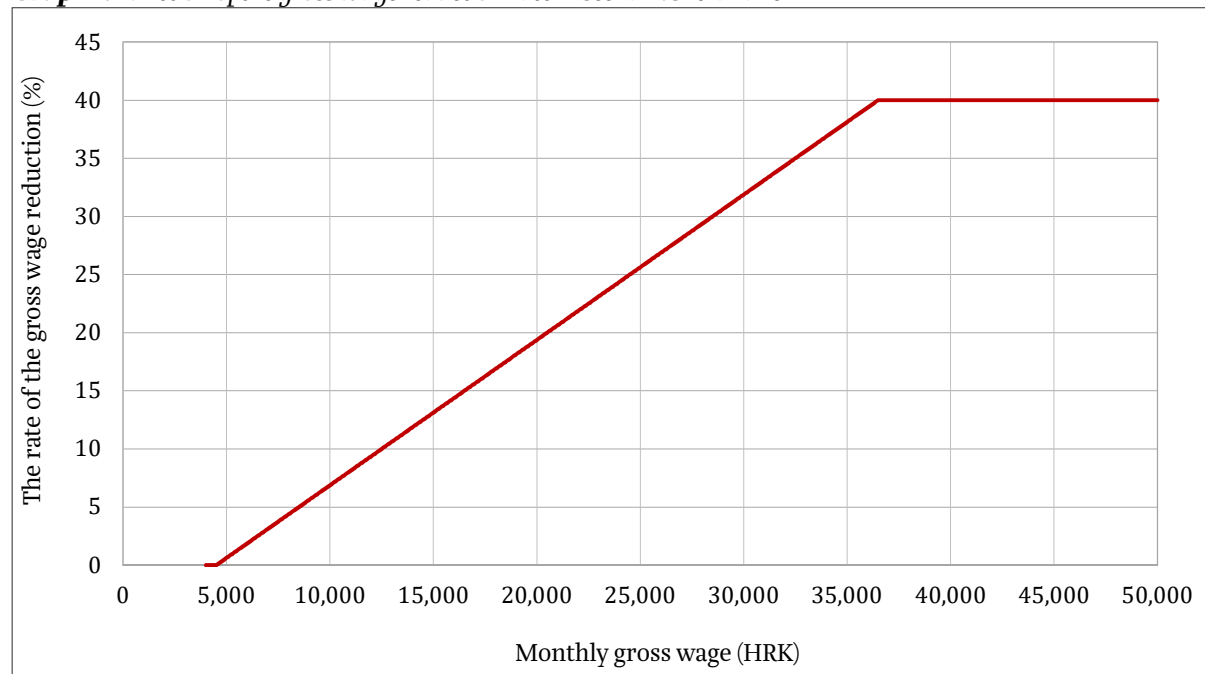
Source: Authors' illustration

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[2] There are probably a number of general government employees who are not covered by the analysis because their jobs are classified outside the selected set of activities. This problem has been partially mitigated by the coverage of the part of the private sector employees who are included in the above activities (e.g. private healthcare institutions, private universities, etc.).

[3] For example, the curve may be horizontal, which means that wage is reduced by the same percentage for all employees.

The aggregate results for the hypothetical scenario R1 are shown in Table 1. The column "baseline scenario" shows the aggregate items without changes in wages, according to which the total gross-II wage is HRK 42.9 billion. With progressive cuts, the total gross-II wage would drop to HRK 38.7 billion or by HRK 4.2 billion (or 9.9%). However, due to the decrease in the gross wage, the employer social insurance contributions (by HRK 583 million), contributions to the first pillar of the pension insurance (by HRK 551 million) and personal income tax and surtax (by HRK 838 million) would also decrease. Thus, the general government budget savings would be HRK 2.3 billion annually or around HRK 190 million per month, and not HRK 4.3 billion, which is the decrease in the total mass of gross wages.

Table 1 *The effects of the hypothetical scenario R1 on the general government budget, annually, in millions of HRK*

		Baseline scenario	Scenario R1	Difference
		(1)	(2)	(3) = (2) – (1)
Number of employees			355,951	
Gross wage	(a)	37,036	33,357	-3,679
Employer social insurance contributions	(b)	5,897	5,314	-583
Gross-II wage	(c) = (a) + (b)	42,933	38,671	-4,262
Contributions to I. pillar of the pension insurance	(d)	5,638	5,087	-551
Personal income tax and surtax	(e)	3,390	2,552	-838
Savings = − (c) + (b) + (d) + (e)				+2,291

Source: Authors' calculation based on the Tax Administration database

Due to the narrower coverage of employees in the hypothetical scenario R2, the savings are expected to be much lower (Table 2), so the general government budget would save about HRK 1.5 billion annually or HRK 126 million per month.

Table 2 *The effects of the hypothetical scenario R2 on the general government budget, annually, in millions of HRK*

		Baseline scenario	Scenario R2	Difference
		(1)	(2)	(3) = (2) – (1)
Number of employees			262,195	
Gross wage	(a)	25,953	23,522	-2,431
Employer social insurance contributions	(b)	4,006	3,631	-375
Gross-II wage	(c) = (a) + (b)	29,958	27,152	-2,806
Contributions to I. pillar of the pension insurance	(d)	3,855	3,499	-356
Personal income tax and surtax	(e)	2,379	1,818	-562
Savings = − (c) + (b) + (d) + (e)				+1,514

Source: Authors' calculation based on Tax Administration database

Given the relatively modest savings in the hypothetical scenarios R1 and R2, two additional scenarios (R3 and R4) implying much greater reductions for employees with a monthly gross wage of up to HRK 20,050 have been introduced. In particular, the coverage of employees in scenario R3 is the same as that in R1, while scenario R4 excludes the aforementioned hospital activities, defence activities and public order and safety activities. The reduction function is similar to the previous one, with several differences: between the minimum wage and the gross wage of HRK 6,000 the rate rises from 0 to 20%; in the interval from HRK 6,000 to HRK 20,500 the rate equals 20%, and then progressively increases to the maximum amount of 40% for gross wages above HRK 36,500 (Chart 2). Thus, the lowest-paid employees are again protected from the reduction of the gross wage. As employees with high gross wages have already been assigned a huge rate of 40%, it is necessary to increase the rate for those with medium-high wages to make greater overall savings, which was done in this setup. As in case of the function in Graph 1, this function is given arbitrarily and illustratively.

Graph 2. *Function of the gross wage reduction rate in scenarios R3 and R4*

Source: Authors' illustration

The results for scenario R3, which are shown in Table 3, indicate significantly higher savings in the general government budget of HRK 4.9 billion annually or HRK 400 million per month.

Table 3 *The effects of the hypothetical scenario R3 on the general government budget, annually, in millions of HRK*

		Baseline scenario	Scenario R3	Difference
		(1)	(2)	(3) = (2) − (1)
Number of employees			355,951	
Gross wage	(a)	37,036	29,506	-7,530
Employer social insurance contributions	(b)	5,897	4,698	-1,199
Gross-II wage	(c) = (a) + (b)	42,933	34,204	-8,729
Contributions to I. pillar of the pension insurance	(d)	5,638	4,497	-1,141
Personal income tax and surtax	(e)	3,390	1,885	-1,505
Savings = − (c) + (b) + (d) + (e)				+4,884

Source: Authors' calculation based on Tax Administration database

The hypothetical scenario R4, which excludes the activities of hospitals, police and military, would result in savings of HRK 3.4 billion annually or HRK 280 million per month (Table 4).

Table 4 *The effects of the hypothetical scenario R4 on the general government budget, annually, in millions of HRK*

		Baseline scenario	Scenario R4	Difference
		(1)	(2)	(3) = (2) − (1)
Number of employees			262,195	
Gross wage	(a)	25,953	20,792	-5,160
Employer social insurance contributions	(b)	4,006	3,209	-797
Gross-II wage	(c) = (a) + (b)	29,958	24,002	-5,957
Contributions to I. pillar of the pension insurance	(d)	3,855	3,092	-762
Personal income tax and surtax	(e)	2,379	1,331	-1,048
Savings = − (c) + (b) + (d) + (e)				+3,350

Source: Authors' calculation based on Tax Administration database

In short, two "less restrictive" (R1 and R2) and two "more restrictive" (R3 and R4) hypothetical scenarios with stronger wage cuts funded from the general government budget, were simulated. Scenarios R1

and R3 include 356 thousand employees engaged in activities where the government is the predominant employer (excluding employees in public companies and local utilities), while there are 262 thousand employees in scenarios R2 and R4 (because they do not include 94 thousand employees in defence activities, hospital, public order and safety activities). Table 5 summarizes the fiscal effects of the hypothetical wage reductions on the general government budget in different scenarios.

Table 5 *Fiscal effects of hypothetical R1-R4 scenarios on the general government budget*

Scenario	Annual savings		Monthly savings
	Amount (in million HRK)	% of GDP	Amount (in million HRK)
R1	2,291	0.57	191
R2	1,514	0.38	126
R3	4,884	1.22	407
R4	3,350	0.84	279

Source: Author calculation based on Tax Administration data; Croatian Bureau of Statistics (for GDP data in 2019)

It should be emphasized that all hypothetical simulation scenarios relate to the reduction of the gross wage, i.e. the taxable part of the wage. Therefore, the possible reduction of various non-taxable remunerations, i.e. wage supplements, transportation costs and daily allowances, were not considered. Of course, some savings could also be made by reducing these items, whereby a certain fall in budget expenditures will also occur automatically as a result of a corona crisis.[4]

For employees in hypothetical scenarios R1 and R3 (broader scope), data from the Tax Administration's database indicate that total non-taxable remuneration related to work in 2018 amounts HRK 2.8 billion, about 46% of which referred to reimbursement of transportation costs and 27% to wage supplements (summer vacation and Christmas gifts, rewards, etc.). Table 6 in the Appendix shows the amounts by the item.

The assumed scenarios and simulations indicate that even with the somewhat "draconian" wage reductions, the effects are relatively modest, especially given the considerable resources needed to help private companies. In addition, the calculation did not take into account the full range of side effects that could reduce or even completely eliminate projected savings. Given the complexity of the situation in which the entire society currently finds itself, such indirect effects cannot be accurately quantified, but should not be neglected. Below we highlight some of the key facts and possible side effects that the government should think carefully about before any ad hoc reduction of the general government employees' wages:

–   Many private sector individuals who are already affected, or will be affected by this economic downturn, will depend heavily on the income of other family members in the coming months. In many households, income is generated from employment in both the private and public sector, and reducing wages from the general government budget would further complicate the already difficult situation in which many families find themselves. What may seem to some as solidarity to others is just a further deepening of agony, so not only are other countries currently not thinking about reducing household income, but are looking for optimal ways to alleviate the shock of those already facing a reduction in income.

–   Reducing disposable income by reducing wages financed from the general government budget in the current situation may also result in a further fall in consumption and, in general, aggregate demand, and consequently a stronger decline in GDP and budget revenues. Thus, the actual budgetary savings due to the direct and indirect effects of the wage reductions in the general government would be much less than shown, while it is not unrealistic to expect a diametrically opposite effect from the desired.

–   Reducing wages paid by the general government budget would, in the best-case scenario, reduce the already dramatic increase in public debt by only 1.22% of GDP annually (Table 5). In a situation where all internationally relevant criteria and guidance on public debt control fall into the water, it should be carefully thought over whether such savings are worth the risk of lowering budget

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[4] For example, since many employees work from home, there is no need to reimburse transportation costs. Furthermore, business trips were cancelled or postponed for better days.

revenues and further expansion of public debt. If the government nevertheless decides to keep public debt under control, then it is better to find other budget items for this purpose.

- Most of the burden of emerging public debt is likely to fall on the public sector in the future, so one can speak of "deferred solidarity". Specifically, the recovery of a shaky economy is difficult to imagine with any increase in taxes and other levies, thus strong interventions on the expenditure budget side will be required. In doing so, as in the past crisis, reducing the mass of public sector wages will be sooner or later get on the agenda.
- If wages, should they be reduced during this crisis, were not restored to the baseline level after the end of the pandemic, the current collective cut would make it easier for any future government to maintain the status quo, i.e. not to undertake the major structural reforms. This is exactly what happened during the last recession. Unfortunately, so far there has been no political will for reforms, and hence this crisis could serve as the perfect trigger for such cuts. So instead of ad hoc cuts, it would be "wiser" and more efficient to make selective but well thought-out cuts.
- Many valuable jobs in public administration and administration are already underpaid, which has resulted in negative selection during the years, i.e. the outflow of highly educated staff whose positions were by force of circumstance filled by less competent persons. Additional wage cuts would further reduce the efficiency of the public sector and the quality of public services. In the long run, this would lead to a further decline in confidence in state institutions, which is the opposite effect of that cited by proponents of immediate public sector wage cuts. Given the problems of a cumbersome and inefficient public sector in Croatia, it is undoubtedly possible (and necessary) through well-designed reorganization and optimization to increase public sector wage rates while reducing the total mass of gross wages.

Finally, before implementing this measure, one should not overlook its impact on consumption and aggregate demand, and consequently on GDP and budget revenues. Indirectly, this also means making the fastest possible decisions about the direction in which the deficit and public debt are intended to go. But with or without coronavirus, we still need long-delayed structural reforms, selective but well-thought-out cuts, and reorganization and optimization of the entire public sector. The government will decide which direction to go, and it is hoped that this analysis could serve as a starting point.

Appendix

Table 6 *Non-taxable receipts in 2018 for employees from hypothetical scenarios R1-R4, in million HRK*

		Scenarios R1 and R3	Scenarios R2 and R4
17	Travel allowances and benefits for using a private car for official purposes	222	190
18	Compensation for using a private car for official purposes, up to the prescribed amount	73	70
19	Compensation for transport costs to and from work by local and long-distance public transport	1,257	906
20	Aid due to disability of workers up to the prescribed amount, support in the event of the death of a worker, etc.	63	40
21	Gift for a child up to 15 years of age, up to the prescribed amount and support for the newborn, up to the prescribed amount	97	66
22	Wage supplements, up to the prescribed amount (Christmas gift, holiday allowance, etc.), for the current tax period	756	528
23	Subsistence allowance for field work, up to the prescribed amount	101	19
25	Allowances for separation from family, up to the prescribed amount	9	3
60	Workers' awards for years of service, up to the prescribed amount	94	64
61	Wage supplements, up to the prescribed amount (Christmas gift, holiday allowance, etc.) for previous tax periods	12	10
63	Cash rewards for work results and other forms of additional employee rewards (additional wage, monthly wage supplement, etc.)	77	74
	Total	**2,762**	**1,971**

Source: Authors' calculation based on Tax Administration data