How to achieve lower labor taxation without harming public funds?

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1. ABSTRACT

This study addresses a key measure needed to improve labor market conditions in the Republic of Srpska (RS) and the Federation of Bosnia and Herzegovina (FB&H) – reducing the currently high level of labor taxation. We document how the short-term income loss that would result from the tax cut can be compensated through indirect taxation, thereby maintaining or even decreasing the total tax burden. Called “fiscal devaluation,” this policy measure simulates the effects of national currency devaluation by lowering domestic workforce costs while increasing consumption (for example VAT) taxes, causing a rise in the price of imported products and services. Fiscal devaluation would pave the way for a broad range of positive economic outcomes by stimulating an increase in domestic price competitiveness, the creation of new workplaces, a decrease of informal employment, and an increase in employees' earnings without increasing overall labor costs.

The “tax wedge,” or the difference between labor costs to the employer and the corresponding net take-home pay of the employee, is around 40% in both FB&H and RS – significantly high when compared with that of many countries. This means that from 100 BAM paid by the employer for one registered employee, only 60 BAM is given to the employee directly. The tax burden for low wage labor is among the highest in Europe. Many EU countries are now adopting fiscal devaluation policies.

According to calculations based on 2012 data, a mere 1% VAT rate increase would generate up to 186 million BAM of additional public revenue in B&H. It would thereby be possible to implement a 5% income tax rate cut in FB&H, for example, and a 300 BAM monthly wage tax exemption. If revenues generated from the VAT tax increase were used to reduce the tax burden for one third of all employees with the lowest wages in FB&H and RS, it would be possible to lower their tax wedge by more than 9%. That would enable an increase in their net wage of over 16%, while labor costs for the employer remain the same.

Decreasing income taxes proportionally to a 1% VAT rate increase is only given as an example here. We recommend serious consideration of decreasing taxes and contributions on wages beyond the income neutral level as well, however – measures

that would help boost economic growth and be possible to fund via fiscal savings included in public budgets. Although a VAT rate increase can negatively affect the purchasing power of socially disadvantaged groups (even in the short term), domestic social welfare reforms can mitigate such effects.

2. Problem background: Catastrophic labor market conditions

An extraordinarily high unemployment rate represents one of Bosnia & Herzegovina's biggest economic problems. By comparison with European countries, B&H ranks at the bottom of the list of economic indicators on labor force participation, with youth and women employment rates particularly high, placing this issue at the top of the list of priorities for economic policy reforms. These relatively poor economic indicators predate the global recession. Even sustained GDP growth of 5% annually before the global recession was insufficient to bring these indicators on par with those of other European countries, pointing to systematic problems in B&H's labor market.

Table 1: Selected data, comparing with EU27

	B&H(2012)	**EU 27 (2012)**
	%	%
Activity rate	44.0	72.0
Employment rate	31.7	64.2
Employment rate for women	22.6	58.6
Unemployment rate	28.0	10.5

Source: Labor Force Survey for B&H for 2012, Eurostat

The leading "Europe 2020" priority of achieving an economic activity rate of 75% for the population aged 20 to 65 should be a key domestic priority. According to the Labor Force Survey for 2012, the unemployment rate in B&H is 28%, with 82% of the unemployed seeking a job for over a year and 70% for over two years. The rate of labor market participation for women is 52%, with 22.6% unemployment. Although these rates appear to be in line with EU average employment rates, they are high when compared with new EU members (see Table 2 in the Annex). A look at the educational structure of B&H's labor force yields a more complete picture of the problems and challenges it faces.

Table 2: Educational structure of labor force population (in %)

Educational level	Employed	Unemployed	Inactive	Total
Elementary school and less	20.6	19.5	60.2	42.6
Secondary school	62.8	71.3	35.5	48.6
College and more	16.5	9.2	4.4	8.8
Total	100	100	100	100

Source: Labor Force Survey for 2012

A full 60.2% of the labor force population that has completed elementary school education and lower are not active. In other words, they do not have a job, nor are they seeking one. The causes for such situation are many, and an adequate solution to this problem involves not only labor market policies but reforms in several areas, including education, the tax system, social welfare system, the structure of public funds, and foreign investment.[1]

Four chronic problems of B&H's labor market must be addressed by such reforms: The low activity rates, long-term unemployment, low participation of women, and the under-educated labor force. **A key question emerges: In current economic conditions, how can we stimulate labor force demand and supply in B&H?**

3. The high tax rate

Several analyses addressing poor labor market conditions in various countries have concluded that high rates of obligatory social contributions correlate with increases in unemployment. Significant differences are also detected between the employment rates reported in countries with high rates of social contributions as calculated by domestic

1 For a more detailed analysis of causes for bad labor market indicators, see: Shagun et al, 2011.

authorities versus the International Labor Organization. Every society requires well-functioning of pension and healthcare systems. At the same time, high labor taxation is bad for formal employment, especially for workers with lower qualifications. The higher the rate of tax and obligatory social contributions, the lower the employee wage, thereby decreasing motivation for an active job search. This difference between the amount paid by an employer and the amount paid to an employee – the so-called "tax wedge" – impacts motivation for informal employment. A comprehensive study conducted from 1990 to 2009 in 33 countries on the influence of labor force taxation on employment found a positive correlation between unemployment rates and average labor taxation.[2] More importantly, the study concluded that "*tax policy can play only a minor role in determining results at the labor market when compared with the negotiation of day wages, money and in-kind transfers, assistance in finding employment, training programs, support from regional mobility."* Tax policy is clearly not the only way to improve the overall situation on the labor market. In the case of B&H, however, the findings of this study regarding the correlation between lower taxes and increased employment are extremely encouraging, and can be applied to assist certain categories of the unemployed.

A recent study by the World Bank on the reform of the public sector in B&H[3] finds that **the tax wedge for workers in B&H who receive 1/3 of an average wage is among the highest in Europe.** This high tax wedge contributes to informal employment and weakens the ability of firms that obey regulations to compete with those that do not. The study recommends a decrease in rates of certain social contributions and oother current expenditure.

According to our calculations for the Federation of B&H, the tax wedge for a worker earning an average gross wage and who has not received vacation allowance is as high as 45%. If such an employee receives 782 BAM net for example (without vacation allowance), an employer must pay 646 BAM in tax and social contributions. If the person receives vacation allowance, then the tax wedge is somewhat lower and amounts to 43.8%. In the Republic of

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2 *Role and impact of labor taxation policies,* Bocconi University, 2011.
3 *Bosnia and Herzegovina - Challenges and Directions for Reform: Public Expenditure and Instituional Review*, World Bank, 2012.

Srpska, the tax wedge on an average wage for a worker without personal deductions is 39.7%.[4]

Studies show that high labor market taxation is characteristic of the entire Western Balkan region (see Randjelovic-Zarkovic, 2012). Researchers must take care when comparing taxation in countries at various stages of economic development, however. The level of services (benefits) ensured by social contribution payments plays a significant role in the evaluation and comparison of national taxation. Furthermore, countries with more law-abiding taxpayers can generally tolerate higher tax wedges, without adversely affecting formal employment. In the case of B&H, however, the difference between 782 BAM net wage and 1429 BAM gross wage evidently represents a strong motivation for avoiding formal employment.

International comparisons demonstrate B&H's relatively high tax levels when compared with new EU members.

Table 3. B&H in comparison with new EU members: Total revenues according to GDP (in %)

Country	2007	2008	2009	2010	2011	2012
Bosnia & Herzegovina	46.54	45.67	45.14	46.87	46.56	45.69
Bulgaria	38.19	38.04	35.26	32.69	32.45	34.43
Cyprus	45.02	43.07	40.13	40.88	39.82	40.11
Czech Republic	40.31	38.94	38.90	38.98	39.79	40.04
Hungary	45.57	45.55	46.90	45.36	53.87	46.46
Latvia	36.34	35.61	36.22	36.04	35.63	37.00
Lithuania	33.80	34.06	34.69	34.88	32.78	33.83
Malta	39.47	38.57	38.66	38.40	39.27	40.21
Romania	32.25	32.16	31.20	32.20	32.61	32.87
Slovakia	28.90	31.63	33.53	32.31	33.23	32.24

4 More detailed calculations are displayed in chapter 7.

Slovenia	40.49	41.19	40.52	41.55	41.42	42.27

New EU members tend to have tax burdens 5 or more percentage points lower than B&H, with only Hungary maintaining a somewhat higher tax burden.

Given this high tax burden, recommendations by the World Bank for B&H regarding the need for decreasing rates of obligatory social contributions with simultaneous decrease of benefits (current costs) are fully understandable. Policy measures involving a tax burden decrease to stimulate economic activity imply a need to establish social consensus on the role of public sector in society.

Even more interesting conclusions can be drawn by comparing the structure of total revenues of different countries. Each country has unique historical characteristics resulting in different tax systems. In the table below, we compare the revenue structure of B&H to those of two new EU members that also have currency boards: Bulgaria and Lithuania. While an average wage in B&H is approximately equal to an average wage in Bulgaria, the share of social contributions in the total revenue structure of each country is significantly different: In B&H, over 33% of total public revenues come from social contributions, while in Bulgaria this amount is less than 19%. Different forms of taxation have different effects on economic growth of course. Public revenues generated through property and indirect taxation is more favorable effect to economic growth than taxes on wages and capital, for example.[5] It may be possible, therefore, to develop a more growth-friendly economic system by introducing different forms of taxation while decreasing the share of public revenues from social contributions. In other words, decreasing the share of contributions for pension or healthcare does not necessarily imply a decrease in the total expenditure for these programs. Pension and health programs can be co-financed from other current sources of revenue in B&H.

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[5] For example, see *Growth-friendly Tax Policies in Member States and Better Tax Coordination in the EU*, European Commission, 2012

Table 4: Structure of general government revenues – comparison with EU members that have currency boards (data for 2011)

General government revenues (% of GDP)	B&H	Bulgaria	Lithuania
Revenues	46.1	32.5	31.9
1.Taxes	23.1	20	16.1
1.1 Direct taxes	3.5	4.9	4.4
1.2 Indirect taxes	19.5	14.1	11.6
1.3 Other taxes	0.1	1.1	0.9
2. Social contributions	15.4	6.1	10
3. Grants	2.1	1.9	2.9
4. Other revenues	5.8	4.4	3.5

Source: IMF

4. INSUFFICIENT REVENUES GENERATED BY SOCIAL CONTRIBUTIONS

Currently in B&H, pension and healthcare funds suffer financial shortfalls and depend on transfers from central budgets in addition to revenues from social contributions.[6] A 2011 report on the revision of the Pension and Disability Insurance Fund of RS states that "*a shortfall in funds calculated for special benefits to be financed from the budget of the Republic of Srpska was financed from credit and funds intended for the upcoming period, which violates the Law on Pension and Disability Insurance, Article 199.*" It is clear that additional funds from the central budget will be needed in future as well, despite the fact that income tax and social contribution rates have increased since 2011 from 8% to 10% and from 30.6% to 33%, respectively). The recent decrease in the healthcare contribution rate by 0.5% accompanied by a corresponding increase in the contribution rate for pension and disability insurance is merely a re-allocation between these funds, not a long-term solution for their sustainability. The Pension and Disability Insurance Fund of the Federation of B&H faces a similar situation: The amount of accumulated debt from the central budget to the pension fund, under favorable conditions, now totals 180 million BAM. Regardless of recent

[6] Here we do not analyze the expenditure structure of pension funds and issues of pension policy such as retirement under more favorable conditions, for example, or the notable trend of giving vested rights, which has led to a situation where only 15% of pensioners have succeeded in bridging service periods.

reforms aimed at creating more favorable retirement conditions, the current near 1-to-1 ratio of workers to pensioners does not ensure the normal functioning or sustainability of the pension system, especially in light of unfavorable demographic trends. Thus, **we can conclude that a policy of financing pension funds in FB&H and RS solely from paid social contributions is not a realistic strategy in the near term.** Current levels of labor market activity simply cannot ensure sufficient pension and healthcare funds, despite the current high rates of obligatory social contributions. Either solutions must be found to stimulate employment (labor force activity) and/or find alternative sources of funding.

Therefore, obligatory social contribution rates for pension and health insurance cannot be decreased without compensating for the immediate revenue losses with alternative sources of funding. Considering the characteristics of the unemployed and the need to stimulate employment among persons with low qualifications, the question arises as to whether any tax decrease should be asymmetrical, with larger decrease(s) benefitting more vulnerable groups, such as the poor, newly established enterprises and crafts shops in the first year of their existence etc. Regardless of how FB&H and RS choose to implement cuts in obligatory social contribution and income tax rates to boost employment, they must anticipate a corresponding decrease in public revenues, at least in the short term). **How can they compensate for this lost revenue?**

5. Trends in tax policy in the European Union

From 2000 to 2009, most EU countries adopted policies aimed at decreasing the tax wedge.[7] In many countries, the global financial crisis narrowed the fiscal space for policy reforms. By 2012, the fact that all EU countries except six were in so-called *excessive deficit procedure* encouraged authorities to adopt further fiscal policies aimed at increasing revenues.[8] In terms of structural tax system changes, a trend can be detected among EU countries since

[7] *The role and impact of labor taxation policies,* Bocconi University, 2011

[8] *Tax reforms in EU Member States - Tax policy challenges for economic growth and fiscal sustainability*, European Commission, 2012

2008 to increate VAT and indirect tax rates while decreasing employers' obligatory social contribution tax rates.

Table 5: VAT rates in EU countries

	2008		2013	
	standard	lower	standard	lower
Bulgaria	20	7	20	9
Czech Republic	19	9	21	15
Estonia	18	5	20	9
Ireland	21	13.5 (4.8)	23	13.5 (9) (4.8)
Greece	19	9 (4.5)	23	6.5/13
Spain	16	7 (4)	21	10 (4)
Italy	20	10 (4)	22	10 (4)
Cyprus	15	5 (8)	18	5 (8)
Latvia	18	5	21	12
Lithuania	18	5 (9)	21	9
Hungary	20	5	27	5 (18)
Malta	18	5	18	5 (7)
The Netherlands	19	6	21	6
Poland	22	7 (3)	23	5 (8)
Portugal	20	5 (12)	23	6 (13)
Romania	19	9	25	5 (9)
Slovakia	19	10	20	10
Finland	22	8 (17)	24	10 (14)
G. Britain	17.5	5	20	5

Note:

If two VAT rates were in force in the same year, the one that was in force more than 6 months or came into force on July 1st is shown in the table. "Super decreased rates" (below 5%) are shown in brackets.

Source: Taxation Trends in the European Union, European Commission, 2013.

Empirical analysis shows that from 2008 to 2013, 16 EU countries increased their standard VAT rates. The global financial crisis and rise in unemployment forced many countries to implement policies aimed at decreasing the costs of employment. The most frequently used policy measure – adopted by 11 OECD member countries – involved decreasing the rate of obligatory social contributions burdening employers. Austria cut the unemployment insurance contribution rate for low-income workers. In addition to a cut in the rate of unemployment insurance, Germany decreased the rate of obligatory health insurance contributions for both employers and employees. Hungary cut its social contributions tax rate for employers from 24% to 21%, while in Portugal it was decreased from 19% to 17% for firms employing fewer than 50 workers.[9] Similar measures occurred in neighboring countries including Croatia, which decreased its health insurance contributions rate from 15% to 13% in 2012 (while increased the VAT rate).

Nevertheless, the impact of the global financial crisis and burgeoning public debt shifted policy priorities towards fiscal consolidation, pushing many countries to increase rather than decrease their social contributions tax rates in 2011 and 2012.[10] Therefore, most policy measures during this period have not led to tax wedge decreases. As far as it is possible to generalize the experiences of various European countries with vastly different tax system structures, employment rates and fiscal consolidation pressures, **it can be concluded that a current trend in European fiscal policy involves consumption tax increases accompanied by labor tax decreases.** In the context of B&H, the experiences of Germany, Hungary and Croatia, which have all opted for policies of "fiscal devalution" by increasing consumption taxes while decreasing social contribution taxes, are highly relevant.[11]

6. IS FISCAL DEVALUATION A GOOD MOVE?

Countries that choose a fixed currency regime (peg), currency board, dollarization or joint currency system by entering a monetary union practically negate their ability to adopt nominal devaluation to decrease foreign trade imbalances. By contrast, countries dealing with rising current account deficits that maintain their own variable currency can drive up the price of imports while making exports cheaper (at least in the short term) by decreasing the nominal exchange rate, thereby stimulating domestic economic activity. Healthy foreign trade deficits depend on realistic exchange rates of course, which in turn depend on

[9] For more details, see *OECD Employment Outlook* 2010
[10] For more details, see *Taxation Trends in Euruopean Union*, European Commission, 2012
[11] *"Fiscal Devaluations" and fiscal consoldiations: A VAT in troubled times,* Ruud de Moij, Michael Keen, 2012.

productivity levels, inflation rates between trading partners and a variety of factors. Because it has a currency board, B&H cannot employ currency valuation adjustments to improve its own export position.

Therefore fiscal devaluation – a decrease in labor taxes accompanied by an increase in consumption taxes – would raise prices for domestic and imported products while decreasing costs for domestic products only, much like the effects of nominal exchange rate devaluation. Domestically produced, labor-intensive products would become relatively cheaper when compared with to capital-intensive products.

In the absence of foreign currency exchange rate policy instruments, unilateral fiscal policy measures of fiscal policy work to boost the competitive position of domestic products (*Farmi, Gopinath, Itskhoki,* 2013). It is understandable, therefore, that euro zone countries might favor fiscal devaluation as a policy tool. Research undertaken in these countries has shown that decreasing the rate of obligatory social contributions by 2.6 percentage points while increasing the general VAT rate by 2.7 percentage points would generate additional net imports amounting to between 0.9% and 4% of GDP, with positive effects continuing for up to a decade (*Ruud* i *Keen*, 2012).

Given the strategic economic positions of Germany and Croatia vis-a-vis B&H, the success of these countries in implementing fiscal devaluation, thereby decreasing their labor costs, has given them a competitive edge over B&H firms, on both domestic and international markets.

7. In search of possible solutions: Calculation of effects

7.1. Tax wedge range

7.1.1. Federation of B&H

According to existing laws, the gross wage burden made up of tax and social contributions, or "tax wedge," in FB&H amounts to between 45.3% of gross wages for an employee with an average wage to 31.8% of gross wages for those employed in certain designated sectors who have been approved to receive personal deducations in their social contributions[12] (see table below). Therefore, if an employer pays 100 BAM for one employee, 54.7 BAM goes to the employee directly in the first case, and 68.2 BAM in the second. Those allowed to receive the higher amount must meet these conditions:

- The employee receives the minimum wage in one of the sectors designated by the government as eligible for social contribution deducations, calculated by multiplying the average wage by 0.25.
- The employee supports at least two children and pays interest rates on a housing loan for their primary place of residence.

If we include tax-free vacation allowances into our tax wedge calculations[13], then the tax wedge ranges from 43.8% to 29.1% for those granted social contribution deducations.

Therefore, most employees working in the Federation of B&H have tax wedges ranging from 43.8% to 38% (excluding those with social contributions deductions). Vacation allowances significantly decreases tax wedges, because they are largely tax free. [14]

Table 6: Federation of B&H – overview of tax wedge range

	Average wage		Lowest wage	
	Without personal deductions	With personal deductions	With personal deductions	With personal deductions
				Special sectors
Gross wage, in BAM	1,429 BAM	1,429 BAM	521 BAM	521 BAM
Net wage, in BAM	782 BAM	828 BAM	305 BAM	356 BAM
Tax wedge, in BAM	646 BAM	600 BAM	216 BAM	165 BAM
Tax wedge, in percentage points	***45.3***	***42.0***	***41.5***	***31.8***

[12] Coal mines, textiles, the leather and footwear industry and low-accumulation traditional guild craft sectors.

[13] We calculated the paid vacation allowance as 69% of an average wage in FB&H, in compliance with the General Collective Agreement.

[14] Meal allowances, which are also tax free, were not included in this calculation because the authors were not able to gain access to data on the percentage of employees who received monetary meal allowances, and their amounts. The assumption is that only a small number of employers pay meal allowances in cash, and that including this payment in these calculations would not yield an accurate picture.

With vacation allowance:				
Vac. all. (amount per one month)	48 KM	48 KM	48 KM	48 KM
Tax wedge, in BAM	646 KM	600 KM	216 KM	165 KM
Tax wedge, in percentage points	***43.8***	***40.7***	***38.0***	***29.1***

Notes:

- Data for an average gross wage from December 2012 according to the Federal Institute of Statistics. Statistical data on the gross wage in FB&H did not include social contributions. Therefore, social contributions were factored into the FB&H average wage, to allow for accurate comparisons with RS.
- We estimated the lowest gross wage to be 2.96 BAM/hour.
- Personal deductions for those paying at least 1200 BAM annual interest on a housing loan and supporting two children were made by calculating 50% of basic personal deductions for the eldest and 70% for the second child.
- We estimated that employers pay meal allowances of 69% of an average wage in FB&H, in compliance with the General Collective Agreement.

7.1.2. Republic of Srpska

The tax wedge in the Republic of Srpska in 2012 ranged from 39.7% gross for an employee with an average wage to 27.1% for a minimum wage employee in the textile[15] sector who was personally approved for social contribution deductions[16]. Apart from those working in the textile, clothing, leather and leather products sectors, however, we can conclude that tax wedge for the vast majority of employees falls within a relatively narrow range, from 39.7% to 35.3%.

It should be noted that before 2011 tax wedges in RS were lower, but social contribution rates were raised and tax-free income abolished that year, leading to a higher tax wedge for all categories. Vacation allowances in RS are subject to income tax and social contributions, so their payment does not affect tax wedge levels.

Table 7: Republic of Srpska – overview of the tax wedge range

	Average wage		Lowest wage	
	Without personal deductions	With personal deductions	With personal deductions	With personal deductions
				Textile sector
Gross wage	1,349 BAM	1,349 BAM	572 BAM	439 BAM

[15] The tax basis for persons employed in the textile, clothing, leather and leather products sectors is calculated by multiplying an average gross wage by 0.25.

[16] Personal deductions in RS in 2012 could be claimed if an employee was supporting a close family member (900 BAM per each close family member supported), paying interest on loans for their primary housing unit, and paying contributions for voluntary pension insurance (up to 1200 BAM).

Net wage	813 BAM	838 BAM	370 BAM	320 BAM
Tax wedge	536 BAM	511 BAM	202 BAM	119 BAM
Tax wedge, in percentage points	***39.7***	***37.9***	***35.3***	***27.1***

Notes:

- Data for an average gross wage in December 2012 (Source: RS Institute of Statistics).
- Personal deductions claimed by persons supporting two close family members and paying interest of 1200 BAM on a housing loan.
- Lowest wage data based on the 2010 General Collective Agreement.

7.2. Average tax wedge

In the previous section we examined tax wedge ranges in FB&H and RS. Individual tax wedge amounts depend on whether employees have the right to claim personal deductions, whether they work in specially designated sectors and whether they receive vacation allowances (in FB&H). But what is the average amount of tax wedge in FB&H and RS? The average tax wedge is an important indicator of the real (effective) burden of labor costs.

We have determined the average tax wedge in FB&H and RS on the basis of statistical data on average gross and net wages (see lower table). The average tax wedge in FB&H amounts to 41.4%, without vacation allowances. Assuming that vacation allowances have been paid to all employees in compliance with the General Collective Agreement, the average tax wedge is 40% (demonstrating again that tax-free vacation allowances significantly impact tax wedge levels in FB&H). An average tax wedge in RS is somewhat lower, amounting to 39.4%.

By comparing this data with data on tax wedge ranges, we see that an average tax wedge in FB&H falls within the middle range. In case of RS, the average tax wedge is only 0.3 percentage points below the upper limit of the range, suggesting that personal deductions and special sector-based calculations for contributions play a smaller role in relieving the burden of labor tax costs.

Table 8: Average tax wedge in FB&H and RS (December 2012)

	FB&H		RS
IN BAM:	Without vacation allowance	With vacation allowance	
Gross wage	1,429 BAM	1,477 BAM	1,349 BAM
Net wage	837 BAM	885 BAM	818 BAM
Vac. all. (amount for 1 month)	-	48 BAM	-
Tax wedge	**591 BAM**	**591 BAM**	**531 BAM**
In percentage points:			
Gross wage	100	100	100
Net wage	58.6	60	60.6
Vac. all. (amount for 1 month)	-	3.3	-
Tax wedge	**41.4**	**40.0**	**39.4**

Notes:

- Statistical data on gross wages in FB&H did not include wage contributions, only wage deductions. Data on wage contributions was therefore added for the sake of comparability.
- Vacation allowances were calculated according to the General Collective Agreement amount of 69% of an average wage in FB&H.

7.3. Possible tax wedge decrease

In this section we answer the following question: If the VAT rate were to increase by 1 percentage point, by how many percentage points could the tax wedge be decreased? This question implies that any additional VAT revenues resulting from the increased VAT rate would compensate for the decrease of revenues from a cut in income or social contribution taxes

This calculation is based on 2012 data, according to the following basic assumptions:

- income neutral reform, i.e. the increase in revenues from VAT is equal to the decrease in revenues from income and social contributions taxes
- additional revenues from VAT are distributed to the Brcko District as well, applying the agreed coefficient for the distribution of indirect taxes
- the tax bases for VAT, income and social contributions taxes are calculated at 2012 levels

This calculation shows that increasing the VAT rate by 1 percentage point would enable a decrease in the tax wedge of 1.62 percentage points in FB&H and 1.54 percentage points

in RS. Therefore, a VAT rate increase would enable a 5.3% income tax cut, or a social contributions rate decrease to 21.2% of income in FB&H (see table below).

In the case of RS, revenues generated from a 1 percentage point VAT increase would be more than enough to allow the tax-free portion of income in the amount of 300 BAM a month to be reinstated, while the remaining portion of income could be used for an additional tax wedge decrease.

Table 9: Calculation of the tax wedge decrease enabled by a 1 percentage point VAT increase

Revenues realized in 2012 (in BAM)	**FB&H**	**RS**	**B&H**
Income tax	250.398.130	263.685.648	514.083.778
Pension insurance	1.471.975.266	705.297.223	2.177.272.489
Health insurance	1.058.744.754	520.460.345	1.579.205.099
Insurance from unemployment	119.747.378	36.823.489	156.570.867
Children's protection		54.604.822	54.604.822
Employment of disabled persons		3.614.403	3.614.403
TOTAL INCOME TAX AND CONTRIBUTIONS	2.900.865.528	1.584.485.930	4.485.351.458
VAT			3.162.800.000
Rates in 2012 (in %)			
Tax wedge - average	40.0	39.4	
Income tax rate	10.0	10.0	
Rate of contribution for pension insurance	23.0	18.0	
Rate of contribution for health insurance	16.5	12.5	
VAT increase by 1 percentage point enables:			
Increase of VAT revenues (in BAM)	117.339.880	62.102.508	186.047.059
Tax wedge - average	38.4	37.8	
Income rate (option 1)	5.3	7.6	
Rate of contribution for pension insurance (option 2)	21.2	16.4	
Rate of contribution for health insurance (option 3)	14.7	11.0	

Notes:

- Sources of data on revenues: Ministry of Finance of FB&H, Tax Administration of RS, Department for Macroeconomic Analyses within the Managament Board of the Indirect Taxation Administration of B&H
- The tax wedge amount for FB&H and RS was calculated on the basis of statistical data on gross and net wages for December 2012, while in case of FB&H vacation allowances were included (see previous chapter for more details).
- Income tax and social contribution rates are defined by law, with exceptions for special sectors.
- In the case of FB&H, contributions paid for and from wages were viewed as a whole.
- The increase in VAT revenues was distributed between the entities based on a database of temporary coefficients for the distribution of revenues from indirect taxes in the first quarter of 2012 (taken from the UINO (ITA) website).

If calculated in relation to net wage, it would therefore be possible to increase the net wage by 2.8% in FB&H and 2.5% in RS, while gross wages would remain the same.

If additional VAT revenues would be used to decrease tax wedges for certain vulnerable population groups only, tax relief on their wages could be significantly higher. For example, if tax relief targeted the lowest 1/3 of employees in terms of wage levels, it would be possible to decrease their tax wedge by approximately 9.7% in FB&H and 9.3% in RA. In terms of net wage, this would enable a decrease of costs paid by the employer amounting to 16% of net wage in FB&H and 15.8% in RS (with net wage remining the same), or an increase of net wage by 16% in FB&H and 15.8% in RS for the employees (with gross wage remaining the same). [17]

8. Are income neutral reforms sufficient?

This question emerges because the ratio of expenditure and GDP in B&H is over 48% (for example, in Bulgaria and Romania this ratio is around 36%), which tells us that there is a relatively large space to achieve fiscal savings without jeopardizing the existing level and quality of services that the public sector is offering citizens. Those fiscal savings would liberate funds that could substitute the portion of revenues lost in the short term by lower labor taxation. The more such savings are realized, the less the need for increasing the VAT rate. Fiscal savings can be realized, above all, in the area of the extremely high public sector expenditure on wages. Problems of over-employment and inadequate wage-setting in the public sector are well known and well documented. [18] Every instance of tax relief on labor financed through such reforms and not through VAT rate increases would be very welcome.

Increasing the VAT rate leads to a certain amount of price growth that places added pressure on socially disadvantaged population groups – especially on those who (in short

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[17] This calculation was based on the assumption that for the lowest paid 1/3 of employees, 1/6 of the total amount of collected income taxes and social contribtions were paid and that the tax wedge for this group was equal to the average (effective) tax wedge for all employees.

[18] For example, see: 'Do we have effective and cheap public sector and what are the priorities in its reform?' Quarterly Economic Monitor by the RS Association of Economists SWOT (author of the analysis: Center for Research and Studies GEA, March 2012.

term at least) would not benefit from the tax relief on labor (for example, the unemployed and pensioners). The lower the level of VAT rate increase, the lower its potentially negative social effects. This problem points to the need for a thorough restructuring of the social welfare systems in FB&H and RS, which are largely based on the principle of realized rights rather than needs, and are therefore regressive in character. In other words, they help to increase differences between the rich and the poor, rather than decreasing them. [19]

It should also be noted that, all else remaining the same, each significant one-time increase of the VAT rate is likely to result in less than proportionate increases in revenues in relation to the growth of VAT. This is due to both increases in tax evasion and retail price growth prompted by the VAT increase, which causes changes in purchasing habits. On the other hand, decreasing labor taxation as discussed would stimulate the legalization of unreported employment and additional employment, which would boost the tax basis and revenues. Therefore, it is necessary to take into consideration both of these measures and evaluate their anticipated effects and dynamics before making final decisions in the implementation of these reforms.

9. RECOMMENDATIONS

We have documented critical aspects of the labor market – low activity, low employment, high and long-term unemployment. We have analyzed the high tax burden and a structure of taxes that does not ensure the efficient use of public funds while discouraging employment. By studying tax policy trends in EU countries, we have noticed tendencies heading towards fiscal consolidations resulting in a greater reliance on taxes with minimal impact on growth and employment.

Current studies on B&H, international research, EU country practices and our own findings suggest that it would be possible and desirable to decrease labor tax burdens while

[19] For more information, see: *Bosnia and Herzegovina - Challenges and Directions for Reform: Public Expenditure and Institutional Review*, World Bank, 2012.

increasing consumption taxes as necessary. Although the experiences of other countries are useful, policy recommendations must focus on the problems specific to B&H. Proposed measures could become a part of the a "B&H 2020" (or "FB&H 2020" and "RS 2020") strategy determining a future vision for fiscal restructuring to be achieved in the medium term of 5 to 7 years.

Considering all the political and institutional complexity of implementing these proposed measures, broader public discussion and coordinated action is needed at several levels. This study has been conducted with the aim of initiating and nurturing dialogue among the various stakeholders.

The basic recommendations of this study are as follows:

i. **Decrease labor taxation (income taxes and social contributions) alongside an increase in taxation on consumption (fiscal devaluation).**

   In chapter 7 we estimate that a 1 percentage point VAT rate increase would enable a decrease in the tax wedge of roughly 1.62% in FB&H and 1.54% in RS. In terms of income tax decreases, this would enable a 5.3% income tax decrease in FB&H and 7.6% in RS. VAT rate increases of over 1 percentage point could also be implemented of course, enabling proportional labor taxation decreases. The example given represents an income neutral reform – additional VAT revenues would substitute the decrease in revenues from income taxes and social contributions. Therefore, this measure alone does not require a decrease in allocations for healthcare and pension funds. We have already stated the expected results of this measure:

   - Stimulated employment resulting from lower total labor losts for employers.
   - An increase in domestic economy competitiveness resulting from lower labor costs and higher taxation on imported products (increased VAT rate).
   - Increased personal income of employees, if a portion of tax wedges are used for this purpose.

The chronic problems of B&H's labor market are long term and require strategic approach. To better predict business costs, it would be possible to draw up a **contingent long-term plan for adjusting social contribution rates, depending on the success of increasing VAT revenues.**

ii. Decrease taxation on labor for certain target population groups. For example:

- **Decrease labor taxation for persons with low education levels (elementary school or less) and other groups with relatively low income.**

  For example, contributions to pension insurance funds or income taxes could be structured so that the total tax burden for the lowest wages decreases by a certain target percentage. This measure aims to lower the price of employing these groups, while at the same time allowing for an increase in their net wages. It also aims to increase the competitiveness of B&H's labor-intensive economic sectors.

  For purposes of illustration, if revenues realized from a 1 percentage point VAT increase were allocated for tax relief for the lowest 1/3 of employees in terms of wage levels, it would be possible to increase this group's net wages by around 16% (with gross wage remaining the same). If this measure were to be implemented, the above-mentioned proposal for labor taxation for all employees need not be implemented. This would represent a compromise between two policy measures. Namely, the more we decrease labor taxation for all employees, the less space there would be to apply progressive tax decreases for specifically targeted vulnerable groups, if we want to realize income neutral reform (i.e. reforms that do not affect the total amount of collected revenues, only their overall structure). This is also true of the following policy measure.

- **Decrease the social contributions rate for workers who have been seeking employment for longer than a specific period (for example 24 months).**

This measure aims to stimulate the employment among those with fewer job prospects. Employing a worker who has been in the register of unemployed persons for 24 months or more could be encouraged with a decreased tax burden on their wage for a limited time period, for example.

Gender-based taxation

Some authors (see *Alesina, Ilcho* 2007) recommend a new approach in gender-based taxation. Starting from the well-known attitude in public finance that optimum taxation means tax rates with reversely proportional elasticity of the taxable basis, they suggest that different taxes for men and women would represent an optimum tax policy. Considering the low economic activity of women in B&H, this could be a possible policy option. For example, income tax rates paid by women could be lower than rates paid by men. Or it would be possible to introduce a tax credit on realized income for women, i.e. to continue to apply tax deductions for supported family members, even after one spouse finds employment (in FB&H only). The authors discuss the possible broader cultural and inner-family consequences of implementing such policies (which may impact, for example, the time parents spend with their children and average overall school success), suggesting that this interesting and potentially effective idea requires additional, detailed research before inclusion in a concrete proposal.

iii. Consider decreasing income tax and social contribution rates above the income neutral level.

We conclude that the best solution for helping to address B&H's chronic unemployment problem would involve a decrease in public expenditures as a portion of GDP (on the level comparable to new EU members by 2020, for example), which could be ensured by implementing fiscal consolidation. This would enable significant labor tax relief without the need for any drastic VAT rate increases. However, if the second best solution – fiscal devaluation – is realized, it will represent significant progress in the positive restructuring of the existing tax system.

In this study we do not analyze the possibility of increasing property taxes, adopting necessary tax administration reforms and decreasing employment in the public sector –

topics that should surely receive more attention in the context of Bosnia & Herzegovina's fiscal reform process. The issue of unemployment and wage-setting policy in public sector are huge problems that will need to be addressed, sooner or later. We cannot emphasize enough that every tax relief measure financed through such reforms, rather than VAT rate increases, would be very welcome.

ANNEX

Table 1: Employment rates in new EU members

GEO/TIME	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
EU27 - European Union (27 countries)	62.6	63.0	63.4	64.4	65.3	65.8	64.5	64.1	64.3	64.2
BG - Bulgaria	52.5	54.2	55.8	58.6	61.7	64.0	62.6	59.7	58.4	58.8
CZ - Czech Republic	64.7	64.2	64.8	65.3	66.1	66.6	65.4	65.0	65.7	66.5
EE - Estonia	62.9	63.0	64.4	68.1	69.4	69.8	63.5	61.0	65.1	67.1
CY - Cyprus	69.2	68.9	68.5	69.6	71.0	70.9	69.0	68.9	67.6	64.6
LV - Latvia	61.8	62.3	63.3	66.3	68.3	68.6	60.9	59.3	60.8	63.1
LT - Lithuania	61.1	61.2	62.6	63.6	64.9	64.3	60.1	57.8	60.3	62.2
HU - Hungary	57.0	56.8	56.9	57.3	57.3	56.7	55.4	55.4	55.8	57.2
MT - Malta	54.2	54.0	53.9	53.6	54.6	55.3	55.0	56.1	57.6	59.0
PL - Poland	51.2	51.7	52.8	54.5	57.0	59.2	59.3	59.3	59.7	59.7
RO - Romania	57.6	57.7	57.6	58.8	58.8	59.0	58.6	58.8	58.5	59.5
SI - Slovenia	62.6	65.3	66.0	66.6	67.8	68.6	67.5	66.2	64.4	64.1
SK - Slovakia	57.7	57.0	57.7	59.4	60.7	62.3	60.2	58.8	59.5	59.7

Table 2: Employment rates for women in new EU member countries

	Employment rate (age 15 to 64)									
GEO/TIME	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
European Union (27 countries)	54.9	55.5	56.1	57.2	58.2	58.9	58.4	58.2	58.5	58.6
Bulgaria	49.0	50.6	51.7	54.6	57.6	59.5	58.3	56.4	55.6	56.3
Czech Republic	56.3	56.0	56.3	56.8	57.3	57.6	56.7	56.3	57.2	58.2
Estonia	59.0	60.0	62.1	65.3	65.9	66.3	63.0	60.6	62.8	64.7
Cyprus	60.4	58.7	58.4	60.3	62.4	62.9	62.3	63.0	62.1	59.4
Latvia	57.9	58.5	59.3	62.4	64.4	65.4	60.9	59.4	60.2	61.7
Lithuania	58.4	57.8	59.4	61.0	62.2	61.8	60.7	58.7	60.2	61.9
Hungary	50.9	50.7	51.0	51.1	50.9	50.6	49.9	50.6	50.6	52.1
Malta	33.6	32.7	33.7	33.4	35.7	37.4	37.6	39.3	40.9	44.2
Poland	46.0	46.2	46.8	48.2	50.6	52.4	52.8	53.0	53.1	53.1

Romania	**51.5**	**52.1**	**51.5**	**53.0**	**52.8**	**52.5**	**52.0**	**52.0**	**52.0**	**52.6**
Slovenia	**57.6**	**60.5**	**61.3**	**61.8**	**62.6**	**64.2**	**63.8**	**62.6**	**60.9**	**60.5**
Slovakia	**52.2**	**50.9**	**50.9**	**51.9**	**53.0**	**54.6**	**52.8**	**52.3**	**52.7**	**52.7**

Source: Eurostat

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