



Food Voucher Issuance in Bulgaria: Economic and Fiscal Impact

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Summary

General Economic Impact of Food Vouchers

In not-totally-formal and informal companies the use of vouchers would, to a great extent, gradually displace the use of “cash” payments (to the level of legally allowed voucher payments). In particular, in the case when workers have so far been employed at the social security tax statutory minimum threshold (or the minimum wage, for that matter) any use of vouchers can only substitute the “cash” payment.

Thus, no additional tax benefit is directly derived by either employer or employee, but is rather distributed as a positive impact on the economy. According to the quoted estimates and assumptions, **the “bleach” effect on the shadow contracts and transactions in food purchasing by using food vouchers would be between 17% and 30% of the total cost of the vouchers**, in addition to the direct impact of increasing the voucher user’s income. Part of this impact would lead to an additional increase of the revenues on these transactions and an increase of the VAT revenues to the national budget.

In 2006, for example, about 37.2% of household spending was on food, dropping to 35.4%¹ in 2009. During this period, the average household income increased by 55%, and the average spending on food products rose by 36.3%². Therefore, we can expect that when the use of vouchers leads to an overall increase in income, consumer spending on food will also rise.

According to the typical and statistically established household behaviour for the persons employed at about the average salary level for Bulgaria, **the additional vouchers would lead to consumer spending on food of about 7% by voucher recipients or their households.**

All other conditions being equal, **in 2010, roughly BGN 12 million more will buy food (generating BGN 2.4 million additional VAT income for the national budget).**

Food vouchers affect internal household income redistribution. If, for instance, one partner receives a voucher, its amount releases part of the

¹ See: NSI at www.nsi.bg.

² /W calculations on NSI household budget data, www.nsi.bg.

total household income from buying food. For the sake of simplicity, it may be accepted that this happens according to the traditional income redistribution levels within the family. The World Bank "Poverty Assessment" reports for 1997 and 2002 estimate this redistribution to be about 25% of the cash income.³ **If this ratio is preserved in 2010, the planned BGN 171.6 million amount of food vouchers would release roughly BGN 42.9 million of income,** which households may use on food and non-food products. At first glance, based on the statistical average of some 35% of the household income being spent on food, the result would be BGN 15 million. However, as noted earlier, not all released household income would be used to buy food. In the voucher case, we have a marginal increase of this kind of spending. Only a portion of the released income could be used on food. When estimating the impact on the redistribution within the family, we must take into account ¼ of the above amount of BGN 15 million. In other words, of the above hypothetical amount of BGN 42.9 million, one would expect BGN 3 million to be spent on food, BGN 39.9 million to be allocated to other purposes – to buy other goods and services or go to savings.

The input/output data for 2009 suggest that imported resources account for 14.4% of the value of food industry production, and only 12.1% of total retail value (transport and trade margins included). In comparison, these percentages in the gross value added of the overall economy are 23.3% and 21.7%, respectively.

In other words, **of every BGN 100 consumer spending on the average,** the increase of domestic value added is BGN 78.3, while the same amount **spent on food products increases the value added generated in Bulgaria by BGN 88.9.**

Taking into account comparative data on the share of imported goods in food sales and consumer purchases and that of other goods, **we could reasonably accept a multiplier of 1.2-1.25. This means that every lev spent on food** generates between 20% and 25% more value added in the domestic

³ See: Bulgaria: Poverty During the Transition, Report No. 18411-BUL and Bulgaria: Poverty Assessment, **October 29, 2002 (World Bank Report No. 24516-BUL, this report is accessible at: http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2002/12/06/000094946_02112204044990/Rendered/PDF/multi0page.pdf**.

economy, than the same lev spent “uniformly” across the “average” consumer basket.

Taking into account redistribution within the family and the possible additional spending on food, depending on the value of the multiplier, the additional value added resulting from the use of food vouchers, in 2010, would be between BGN 34.9 and 43.6 million. (The respective additional contribution to the national budget in terms of VAT – BGN 6.9-8.7 million.)

Assuming the total monthly income is increased by the voucher amount of BGN 60, for every new 1000 workers using vouchers, we could expect 24-27 new jobs created in the food and public catering industry. This would mean that every new thousand beneficiaries would generate a new average income (according to the NSI statistics on the average monthly income for December 2009) between BGN 180 and 202.5 thousand with taxes and social security contributions on this income between BGN 56.7 and 63.8 thousand. (Without a special analysis, it is impossible to predict up to what level of expansion of the beneficiary circle, this effect would be preserved.)

Impact on Businesses and Income

Employers using vouchers for their enterprise benefit policy release a resource, which can be redirected to other production purposes. This becomes evident in the following table, describing three generalised scenarios of employee behaviour.

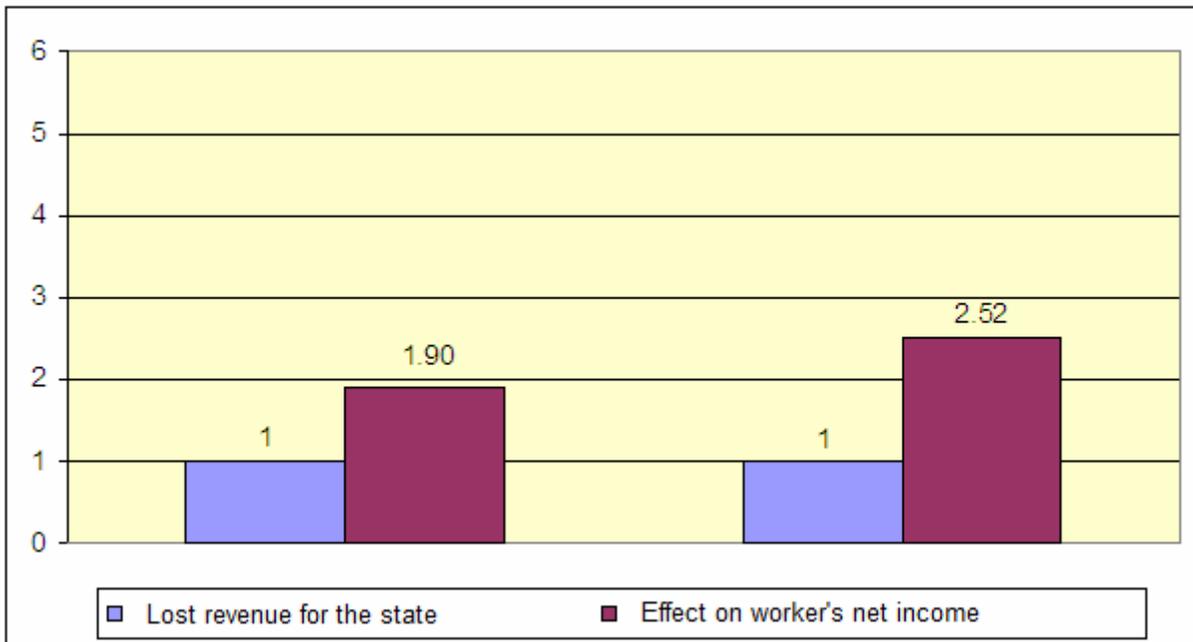
Vouchers and Wages				
Gross wages	600	540	555	600
Voucher	0	60	60	60
Net wages (cash)	474.66	427.194	439.0605	474.66
Employee portion of taxes and social security	125.34	112.806	115.9395	125.34
Employer portion of social security	101.4	91.26	93.795	101.4
Taxes				
	Baseline scenario	Option 1	Option 2	Option 3
Net wages (cash plus voucher)	475	487	499	535
Taxes and social security	227	204	210	227
Total cost of labour	701.4	691.26	708.795	761.4
Tax and social security burden in %	32.3%	29.5%	29.6%	29.8%

Change in Cost of Labour and Wages				
	Baseline scenario	Option 1	Option 2	Option 3
Change in cost of labour	0.0	-10.1	7.4	60.0
Change in net wages		12.5	24.4	60.0

In other words, the table shows that vouchers provide benefits both for employees and employers. This fact also helps explain why employers and labour unions defend the voucher system and reveals the process, through which the voucher tax-reduction effect generates the positive economic impact associated with the general tax-reduction policy.

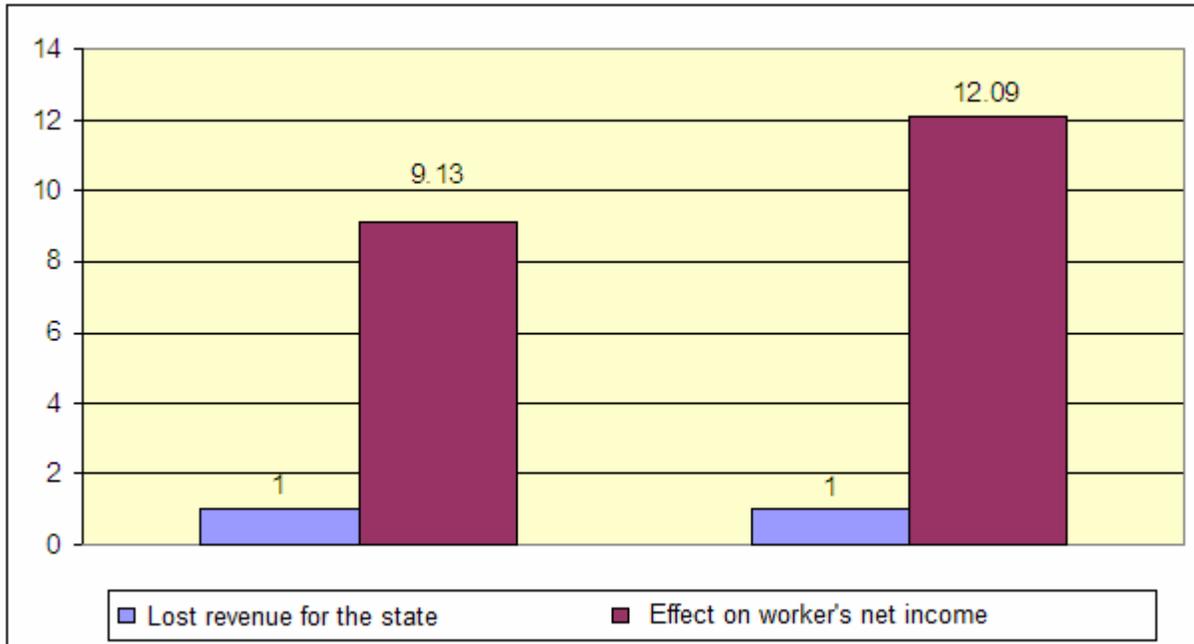
The impact of the program expansion on the workers' net income is positive. Every additional lev, which is not going directly to the national budget as a result of the food voucher system expansion, generates between BGN 1.9 and 12.09 of additional net income for the employed persons.

Minimum and maximum impact on the workers' net income, resulting from BGN 1 lost national budget revenue as a result of increased food voucher quota, assuming vouchers substitute rather than increase existing gross wages



Note: Here, and on the following chart, the lost national budget revenue is measured using either a base option of worker income increase by means of wages (the first two bars on the chart) or by means of in-kind benefits (the last two bars)

Minimum and maximum impact on the workers' net income, resulting from BGN 1 lost national budget revenue as a result of increased food voucher quota, assuming that the voucher represents additional income for the worker on top of their gross wages



Comparison with Other Social Policies

The food voucher impact should help compare this policy with other forms of social policy using tax breaks.

In 2008, the non-taxable income of 44,600 farmers and tobacco growers was BGN 1,092,943,727. The same year, 1,593 farmers utilised remitted tax of **BGN 23,580,889**. This amounts to roughly **BGN 14,900 per recipient**. Apparently, the cost and benefit of this tax break has not been seriously reviewed. The amount is more than 20 times higher than the BGN 720 of food vouchers per employee on an annual basis, and the non-taxable amount – of more than BGN 110 million – is comparable to the lost revenue for the national budget in terms of personal income tax, if the voucher system covered all persons employed in the private sector. Apart from that, these citizens also benefit from direct and indirect subsidy programmes.

Recently, the subsidised employment programme was expanded by another BGN 10 million. Apparently, it would reach BGN 76 million, or BGN 3,300 on the average per beneficiary for the current year.

The point is not to put private-sector employees against beneficiaries of these programmes or farmers and tobacco growers, but rather to provide some context.

For each private-sector and non-subsidised-state-enterprise employee (including farmers) in Bulgaria, there are two citizens, who are either retired, or children and students, or unemployed, or public employees.

Another specific feature of this context is the total government spending. If the planned government spending is reduced by the Bulgarian contribution to the EU budget, and the daily spending is calculated, the total food voucher quota would be equal to three-and-a-half days of government spending. (Under the 2010 Budget Act, this daily spending amount is some BGN 49 million, and, after the budget adjustment, it would probably reach BGN 49.6 million.).

If we assume that the minimum above calculated “bleach effect” on the shadow economy of the effective food voucher programme is 1.17, it would help report more than BGN 29 million of unreported income, i.e. more than half of the daily government spending or significantly higher than the tax remitted to farmers in 2008.⁴

This impact is further strengthened by the VAT payable on the amount of the issued food vouchers – probably around BGN 25 million – and the VAT on the additional consumer spending through redistribution within the family and other indirect impact.

On a **macroeconomic level**, food voucher usage sustains full reporting of household spending. Vouchers may either substitute or increase cash wage income; either way, the relative share of voucher-paid sales is increased, subsequently expanding the tax base.

On a **micro level**, introduction of vouchers favours most retailers and restaurant operators accepting them; these companies are typically larger and duly report their revenues; furthermore, it creates incentives for household consumer spending on domestic products.

We can expect an increase in VAT collection as a direct consequence of the use of vouchers (more revenues reported), with more national budget

⁴ This impact is between BGN 29.1 and 51 million.

revenue from corporate income and payroll taxes in the retail sector as a secondary effect.

Introduction

With this report, KC2 EOOD and Industry Watch present the results of their research on the economic and fiscal impact of the food voucher system in Bulgaria.

We start with the assumption that food vouchers are a reasonable social policy, which can be **transparent** and **has no significant fiscal deficiencies**, compared to other policies.

The food voucher system is based on the tax-break principle and should therefore be compared to other similar policies. In this research, we verified whether and to what extent it effectively leads to a reduction of the tax and social security burden and whether, from a fiscal standpoint, it has fewer negative consequences than the benefit systems for public employees, tobacco growers, and registered farmers, as well as than the existing alternatives supporting local production, small and mid-sized business, and occupational health.

Presently, there are 16 voucher-issuer companies in Bulgaria, three of them had their licences revoked. The total government-set voucher quota for the current year is BGN 171.6 million. Approximately 240,000 employees are eligible to receive vouchers, and the monthly amount per employee is BGN 60. This amount is tax deductible and is withheld from the social security and income tax payable by employers and employees. Legally, it is not allowed to use vouchers for wage reduction, however, the practices vary, since these are affected by the general economic conditions, the labour market, and other factors.

This survey attempts to distinguish the apparent and the actual results of food voucher usage. This approach is especially important within the context of the discussion on the regulatory framework of the system, together with the anti-crisis measures of the government, for there is no existing detailed analysis of the pros and cons of this system in its present form, and in view of the possible changes. As a result, the comments on this measure appeared in a broad range varying from extremely negative to openly cheering.

Industry Watch and KC2 calculations at this point prove that voucher usage has a positive impact on the national consumer spending and economy. The comments to the effect that the system would have only a negative fiscal impact due to lost national budget revenue from taxes and social security overlook some of the impact and are thus incomplete and incorrect.

For instance, the most common assessment of the fiscal loss from the voucher cross-subsidy per employee is BGN 21, i.e. almost BGN 5 million monthly, or BGN 60 million per annum. If we review even the most pessimistic scenarios for the tax revenues, however⁵, this subsidy is almost three times lower. In other words, as made evident by this analysis, this idea is, to say the least, unrealistic and based on a scenario, which fails to take into account the additional impact, which is not apparent. The food voucher system, especially in comparison to other subsidy-based and tax-break-based policies, is characterised by direct and indirect impact, changing incentives for economic actors, leading, or possibly leading, to an increased revenue from other taxes – VAT and income tax – in other parts of the economy.

Within an economy having elastic labour demand and supply, any reduction of the tax burden leads to higher employment, higher income, or both.

The applicability of this general theory to the effect of the Bulgarian food voucher system is verified in the first part of the report. Later on, we deal with the quantitative assessment of the impact, in a near-real environment, taking into account the cost and benefit for the businesses (employers), employees, and the national budget revenue.

History

Food vouchers are used in Bulgaria since 2003. Back then, they were designed to function as an incentive to increase the income of the permanently employed. At that time, the economic environment was characterised by economic growth, budget surplus, and falling unemployment numbers. Like in a number of European countries⁶, the food voucher system became increasingly popular in Bulgaria. The system is being regulated by quotas for the voucher issuing operators. It presently covers more than 200 thousand workers or roughly 7% of all employed persons in the country. Public employees enjoy special bonus systems and, for all intents and purposes, are not represented in the food voucher system.

In order to better understand the impact on the economy and tax revenue, *KC2* and *IV* started this research in the last week of April 2010 and early May 2010. The impact assessment presented here reflects the conditions before the last fiscal and legislative changes of the system. They should inevitably be adjusted, as soon as the proposals for its amending and supplementing become clear.

⁵ See below Table 3 and notes to it.

⁶ Presently, at least 20 European countries employ food vouchers.

Objective

This *Industry Watch* (IW) and *KC2* research aims to present an objective analysis of the food voucher impact on the economic relations and the businesses, as well as on the national budget, which should help anyone trying to understand the system and the proposals for its reform.

We believe our findings should be taken into account when the promised reforms are being developed. This is why these will be made available to the media, the Ministry of Finance (which regulates the voucher issues and allocates the respective subsidies), and the labour and employer unions. They could use the material at their discretion, if and when the food voucher system changes are being discussed.

Methodology and Sources

This research was designed to apply traditional cost and benefit assessment methods to the food voucher system in Bulgaria.

Due to the lack of an official reform proposal and the short timeframe, however, we focus mainly on generalised calculations for the cost and benefit for the national budget and the system beneficiaries, while the economic impact overview mainly outlines the qualitative impact. For this impact, based on economic theory, we formulate various assumptions and attempt to verify to what extent these are applicable to the current conditions in Bulgaria.

The sources used in this research are as follows:

- Authoritative research on the impact of tax breaks on economic activity, employment, and growth;
- Ministry of Finance and National Statistical Institute (NSI) on the scope of the current system and the state of the labour market and income;
- These are also the primary sources for the description of the economic environment for the period starting with the introduction of the system until 2010;
- About 15 interviews with food voucher issuers and enterprises participating in the system helped us understand business behaviour;
- Similar research was carried out in other countries, where similar policies are in place; we are familiar with them, their approaches and conclusions;

our research was helped by the authoritative analyses on the taxation impact on productivity, employment, and business, as well as by the attempts to assess the shadow economy in Bulgaria.

General Description of the Political and Economic Environment, within which the Food Voucher System Operates

Macroeconomics between 2003 and 2010

Until 2009, Bulgaria enjoyed a 12-year period of economic growth – the longest continuous period in the country’s history after 1878. From mid-1997 until November 2008, the index of real gross domestic product (GDP) growth stood about 5%. The years 2006, 2007, and 2009 were especially strong, with the real GDP growth standing at 6.3%, 6.2%, and 6%, respectively. In 2007, DFI were 29.4% of the GDP (a record for new Europe for the last 12 years), falling to 19.2% in 2008. However, in 2009, foreign investment was halved on an annual basis, then, between January 2010 and January 2009, DFI dropped by another 28%, while for the December 2008-December 2009 period, the GDP contraction was 5.9%.

At that time, total investment dropped from 36.9% of the GDP in 2008 to 24.7% in December 2009 (some 30% decrease). In December 2009, consumer spending shrunk on an annual basis by 6.2%. In 2010 Q1, the GDP contraction over 2009 Q1 was 3.6%.⁷

Between 2000 and 2008, according to BNB statistics, Bulgarian GDP more than doubled, while in 2008, investments, gross capital formation, were five times higher in absolute terms than those at the beginning of the period.⁸

Between 2000 and 2008, Bulgarian economy enjoyed a favourable general economic environment, including monetary and price stability, fiscal discipline, steady inflow of external savings, strong external demand (mostly from the EU economies), limited government intervention (with the exception of the permit and licence procedures for the real economy), and a successful conclusion of the NATO (2004) and EU (2007) accession processes. This environment was strengthened by a tax reduction from the roughly 40% nominal corporate and income tax rate to 10%, which, in turn, led to a positive increase of tax revenue.

⁷ See: GDP for the first quarter of 2010. NSI, 9 June 2010, available at: <http://www.nsi.bg/EPDOCS/GDP2010q1.pdf>.

⁸ See: Table in Appendix 3.

Fiscal Behaviour for the 2003 – 2010 Period

Between 2003 and November 2008, Bulgarian government enjoyed effective budget surplus of approx 2% of the GDP on an annual basis, highest in 2007 (3.5%) and 2008 (3%).

At the same time, as a result of the described environment, unemployment fell from double-digit numbers in 2000 to 6.2% at the end of 2008.

As a country with GDP level per capita of about 1/3 of the EU average, Bulgaria participates in the common European subsidy programmes, the planned volume of which was between 2.5% and 3% for the 2007-2013 period.

National Budget Context of the Food Voucher Discussion

Fiscal developments in early 2010 have a direct bearing on the food voucher debate.

The balanced budget tradition was seriously compromised in 2009, when the 3% GDP surplus was reversed to a 3.9% deficit, using Eurostat methodology⁹, or 3.8% of the GDP (4.8% on cash basis), according to the last budget adjustment for 2010. The level of government spending from the previous years remained the same in general, and, in 2010, it will be partially financed by the fiscal reserve. The outlook for an adequate increase of the national budget revenue is uncertain, to say the least, while the reduction of spending is relatively modest and does not affect the social spending commitments made by previous government administrations. In this environment, each reduction in tax liabilities, including using food vouchers, should be viewed in the context of various social policies and their fiscal and economic impact.

In 2010 Q1 (i.e. over March the previous year), the only tax collections increasing national budget revenue were social and health insurance contributions (from 24.3% to 28.6% of total revenue) and personal income tax – from 9.4% to 11.8%, respectively.

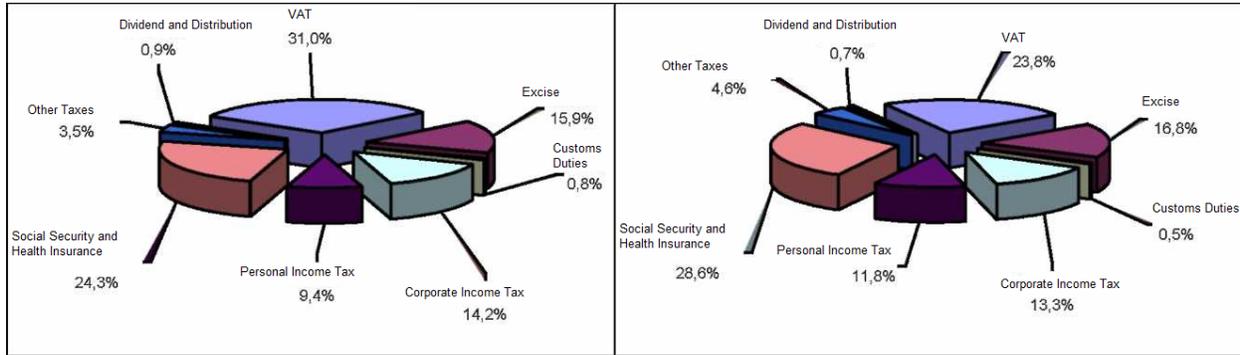
Chart 1: National budget revenue on the eve of the food voucher discussion (March 2010 against March 2009)

March
2009

March 2010

⁹ EuroIndicators, 55/2010, 22 April 2010, p. 4, available at:

http://epp.eurostat.ec.europa.eu/cache/ITY_PUBLIC/2-22042010-BP/EN/2-22042010-BP-EN.PDF.



Source: Ministry of Finance¹⁰.

Total revenue (taxes plus aid) in 2010 Q1 was BGN 1.23 billion less than March 2009. Some taxes exhibit influence of environment factors. For instance, the relative drop of revenue “is a result of the one-time VAT revenue in January 2009, related to the significant public spending in late 2008”¹¹. Still, the problems for the national budget revenue are obvious. The same Ministry of Finance document points out that, for 2010 Q1, the national budget revenue is less than 20% of the plan, while the non-interest-bearing expenses (payments to EU and on national debt remain unchanged) are 26% of the planned for the whole year (an increase of 16.2% over March 2009). With unemployment levels rising (by 2.9 basis points for 2009), the increased revenue from personal income tax is, by the way, an indication for an increased discrepancy between income and productivity, and for a probable market (objective) pressure on employers to adjust this discrepancy.

By late December 2009, outstanding government payables to the private sector (central and local level) were almost BGN 0.8 billion¹². For the first three months of 2010, accumulated deficit stood at roughly BGN 750 million¹³, while the forecast at the end of May was for an additional deficit of BGN 238 million.

It is especially important to point out that, as discussed earlier, the social tax revenue increase is a result of the previous administrations’ policies, which coincides with the period the food voucher system was active. In particular, these are “enhanced” mandated social spending benefits such as: expansion of

¹⁰ See: Monthly budget performance bulletin, March 2010, p. 2 (available at: <http://www.minfin.bg/bg/statistics/>); as of the time of completion of this research, no new data have been published.

¹¹ Ibid., p. 3.

¹² See: <http://www.minfin.bg/bg/statistics/>.

¹³ Monthly budget performance bulletin, March 2010, p. 5, Table 1.

the scope of disability pensions (since 2003), introduction of social security thresholds for various workforce qualifications in 2004, later updated¹⁴, increase of maternity (2008) and unemployment facilities (in 2009 and 2010), plus expansion of quasi-tax benefits for farmers and tobacco growers, and the annual increase of minimum wages and pensions. We believe that national budget transfers to the NSSI, NHIF, and the respective government employee social security in 2010 will rise to more than 10% of the GDP, while all above mentioned social expenses will rise to about 13% of the GDP.

It seems that the prolonged period of economic growth and fiscal comfort has created a political habit of favouring non-productive social groups at the expense of taxpayers – a hard habit to break in 2010, despite the national budget deficits and economy contraction. In this situation, there aren't many ways left to manoeuvre, except fast and sharp reduction of government spending and the above discussed legally established benefits, or postponement of these reductions for a later date with more significant cuts. This is the context around the discussion on the food voucher issuance and allocation policy reform.

The current fiscal administration is, in fact, facing the problem to reduce the spending promised by the previous two administrations. Reasonably enough, there is the desire to reduce national budget financing of those benefits, which do not require legislative action, which is the case of most of the spending listed in the preceding paragraph. Same is the context around the food voucher system discussion.

The analysis below shows the cost and benefit of using vouchers as social policy, including indirect and non-apparent impact.

¹⁴ See: Impact analysis: Impact of raised social security thresholds for the state, the businesses, and the citizens, IME, 2009, available at: <http://ime.bg/bg/articles/efekti-ot-powishenite-osiguritelni-pragowe-za-dyrvawata-biznesa-i-gravdanite/#ixzz0nhWGu4Yv>.

Key Features of the Current Food Voucher and Tax/Regulatory System

Food Voucher Quota and Coverage

Currently, the system operates within the following legal and operational limits:

- The tax deductible monthly amount of food voucher of BGN 60 per employee;
- The amount is deducted from the social security and income tax contributions payable by the employer and the employee; also, from the taxable income, i.e. it is not taxed by corporate income tax;
- The total quota for 2010 is BGN 171.6 million; currently allocated as vouchers for eligible beneficiaries are BGN 158 million; the total quota is equally distributed among licensed food voucher issuers;
- The total number of the workers eligible to use food vouchers is some 238 thousand, mostly workers in private, relatively large enterprises, representing 14% of the total number of private-sector employees (1.7 million); taking into account the current allocation, presently, the beneficiaries of the system are some 222 thousand workers;
- Government employees (as of March 2010, 193,540 public administration, Mol, and army employees) and public employees (246,460 in the judiciary, NSSI, state hospitals, clinics, and schools, radio and television, BAS, etc.), for all intents and purposes, are not covered by the food voucher system – their additional compensation is based on a special wage and in-kind bonus system and their social security taxes are paid by the national budget.

Effective Legislation

In 2010, social expenses implemented using food vouchers up to the monthly BGN 60 per worker are deductible from payroll taxes and personal income tax. Apart from this, since these social expenses reduce the taxable profit, they result in lower corporate income tax.

Under the effective legislation, it is forbidden to decrease workers' gross wages by means of vouchers; however, we believe that it is very difficult to comply with this requirement and to subsequently control such compliance; this is due to the following actual and legal specifics: the price of labour is elastic, wages are

easily negotiated – mostly because of the economic environment, but also because of the regular renegotiation of various benefits, service-based remuneration, etc., as well as because the agreed-upon trailing three-month remuneration is considered to be authoritative for its stability (while any stricter wage regulation would amount to government interference in business matters).

Bulgaria is the only EU country¹⁵, where regulation requires equal distribution of the quota among the voucher issuers. (Initially, similar policy was also applied in Romania, however, upon realising its inefficiency, this quota allocation was abandoned and issuers compete among themselves. See below, “Imperfections of Equal Voucher Issuer Quota Allocation”.)

Applicable Tax Breaks

- The actual tax burden in 2010 is as follows:
- The payroll tax rate for the third category occupational hazard is 28.9%. 5 percentage points go into private pension funds and do not represent revenue for the national budget. Hence, the effective payroll tax rate is 23.9%, which is divided as follows: 9.9% are paid by the employee and 14% are paid by the employer.
- The personal income tax rate is 10%, which is paid after payroll tax on behalf of the employee.
- Social expenses are taxed at 24%. Again, 5 percentage points go to the private pension funds and do not generate revenue for the national budget. The remaining 19% are divided as follows: 8.1% are paid by the employee and 10.9% are paid by the employer.
- Tax on social expenses is 10% which is paid on behalf of the employer.
- Social expenses of the employer are not taxable as income to the employee, if they are in-kind; otherwise, they are taxed as any other income (i.e. by 10%).

¹⁵ See some international comparisons in Appendix 2.

*Current Status of the Bulgarian Food Voucher “market”**Quota Allocation in 2008, 2009, and 2010*

Traditionally, quotas are allocated once a year. In 2009, the allocation was updated. While for the period until 2009, there was a trend towards increasing the total quota, in 2010, it was reduced. On the other hand, the system included newly licensed issuers, while others saw their licenses revoked, with pending appeal proceedings.

An amendment to the food voucher regulation from early 2010 states that, for issuers, who are related entities, one common part of the common quota shall be valid, equal to that of the other groups and individual issuers.

Table 1: Allocated Food Voucher Quotas (2008-2010)

Issuers	2008	(1) 2009	S2 2009	2009	2010	Available 2010*
Sodexo Pass Bulgaria EOOD	23,000,000	15,000,00 0	7,500,00 0	22,500,000	13,200,000	13,200,000
Prisma Lux OOD	23,000,000	15,000,00 0	7,500,00 0	22,500,000	13,200,000	13,200,000
Viabel EOOD	23,000,000	15,000,00 0	7,500,00 0	22,500,000	13,200,000	13,200,000
Etap-Address AD	16,000,000	15,000,00 0	7,500,00 0	22,500,000	13,200,000	13,200,000
Billa Service EOOD	11,000,000	15,000,00 0	7,500,00 0	22,500,000	13,200,000	13,200,000
Fiducia EAD	11,000,000	11,000,00 0		11,000,000	13,200,000	13,200,000
VM Finance Group AD	11,000,000	11,000,00 0		11,000,000	13,200,000	13,200,000
Tombow Bulgaria OOD	23,000,000	15,000,00 0	7,500,00 0	22,500,000	13,200,000	13,200,000
Liberty Food Services EOOD					13,200,000	13,200,000
CBA Asset Management AD					13,200,000	13,200,000
Poultryproducts EAD	11,000,000	11,000,00 0		11,000,000	13,200,000	13,200,000
Accor Services Bulgaria AD**	23,000,000	15,000,00 0	7,500,00 0	22,500,000	6,600,000	6,600,000
Accor Services Ticket Restaurant EOOD					6,600,000	6,600,000
Cheque Dejeuner OOD	23,000,000	15,000,00 0	7,500,00 0	22,500,000	4,400,000	0
Cheque Dejeuner Bulgarie EOOD					4,400,000	0
Mymenu EOOD					4,400,000	0
Total	198,000,00 0			213,000,00 0	171,600,00 0	158,400,000

Source: Food voucher issuers

Comments: *Because of above mentioned appeal procedures, part of the 2010 quotas currently remain unused.

**In early June, the company was renamed to Edenred.

Until 2009, the practice was to calculate the total quota as a result of the accumulation of cash volumes of tax breaks over the previous years. This practice was understandable considering the budget surplus and explains the actions of food voucher issuers and the differences between 2008 and 2009. Later registered issuers accumulated smaller individual quotas for the respective period. In June 2009, each active issuer quotas were increased by BGN 7.5 million (with three licensed issuers at that time determined to be “inactive”). The respective policy amendments in 2009 confirmed the equality principle in quota allocation and updated the quota accumulation over the previous years. This practice, as discussed earlier, was changed in 2010, and, presently, one quota is available to a business group or an individual issuer.

Imperfections of Equal Voucher Issuer Quota Allocation

Romania’s motives to abandon two years ago the equal food voucher issuer quota allocation are typical for the quota regulation and are also evident in Bulgaria.

- This regulation practice inevitably leads to lobbying for new licences, for more tax breaks, for “market” repositioning, and for the inclusion of more beneficiaries without competition, which is able to find niches within the system and to develop new fields of voucher service, including service not dependent on direct subsidies.
- The allocation of the total quota equally among the licensed issuers, regardless of their readiness to fill their prescribed share, leads to licence right trading and attempts by the more efficient voucher issuers to fill the niches. The more efficient ones frequently find themselves punished by revoked licence.
- To avoid this, the controlling body always, or almost always, finds itself in the position of a deal-approving institution, since it has the information on the actual level of total quota utilisation, and is possibly forced to reallocate unutilised quotas, also on equal basis.

- Thus, control becomes more expensive – additional analysis is needed to determine to what extent. We believe the controlling body knows the answer to this question.
- The control leads to elimination of development opportunities for the more efficient issuers and to the extension of de-facto privileges to the more inefficient ones.
- The cost of voucher issuance is increased, because individual issuers quite often maintain a technology platform enabling them to deal alone with the possible reallocations of the total quota.
- This creates mistrust in the system – among the issuers and between them and the tax authorities and the regulator (Ministry of Finance).
- Part of all this are the suspicions for invisible preferences for certain issuers and the lobbyist groups maintained to “level the playing field” for all issuers;
- Eventually, the potential of the system remains unused, which leads to dissatisfaction among potential beneficiaries, who realise they are unable to achieve the desired increase of their disposable income.

Major Presumed Impact of the Use of Food Vouchers

Theory and Possible Effects in the Present Bulgarian Environment

Tax Reduction through Food Voucher Usage: Impact on Employment and Income

As it was discussed earlier, presently, food vouchers are tax exempt up to a monthly threshold of BGN 60 per worker.

Since wages are being taxed with social security and health insurance, economic theory states that **the equilibrium on the labour market has sub-optimal wages and size of employment** (the optimal levels would be achieved when full bargaining freedom and no taxation on these contracts exist). Therefore, **in theory, any reduction of the tax burden will lead to either higher income, or higher employment, or (most probably) both.**

A recent study of this phenomenon in 85 countries, including Bulgaria¹⁶, has shown that a 10% cut in payroll taxes (i.e. social security and income tax) may lead to a 3.5% increase in the employment rate. The impact is dependent on the elasticity of supply and demand of labour. There are strong reasons to believe that, in the current Bulgarian conditions, both are elastic, i.e. that changes in one variable (in our case – payroll taxes) lead to other effects, with a magnitude higher than one.

The macroeconomic evidence supporting this assumption is the following:

- The production capacity utilisation rate was about 65% in January 2010, with its highest level during the economic expansion hovering about the 75% threshold in 2007 and 2008¹⁷.
- The employment rate stood at about 61% (for 15-64 age group) in the last quarter of 2009¹⁸, with its peak level of 65% in the third quarter of 2008.

¹⁶ See: Djankov, Simeon, Tim Ganser, Caralee McLiesh, Rita Ramalho, and Andrei Shleifer (2008), The Effect of Corporate Taxes on Investment and Entrepreneurship, NBER Working Paper No. 13756, Cambridge, Massachusetts, NBER, January, 2008 (updated March 2009), p. 50; available at: <http://www.nber.org/papers/w13756.pdf>. [Simeon Djankov, Tim Ganser, Caralee McLiesh, Rita Ramalho, and Andrei Shleifer. The Effect of Corporate Taxes on Investment and Entrepreneurship, National Bureau of Employment Research Working Paper No. 13756, Cambridge, Massachusetts, NBER, January, 2008 (updated March 2009), p. 50.] The research uses data for 2003-2005; it states that the effects on entrepreneurship (business creation) and investment (including direct foreign investment) are similar.

¹⁷ See: Survey of business trends in industry data, www.nsi.bg.

- These levels are about 2-3 percentage points lower than the EU 27 average, and more than 10 percentage points lower than those in Netherlands, Denmark, and Sweden (i.e. the countries with the highest employment rate in the EU).

Basically, relatively high production capacity utilisation rate and relatively low employment rates create incentives for working people to use the tax-released portions of their disposable income on consumer spending and/or redistribution within the family¹⁹.

Incentives for Companies

From a business perspective, it is obvious that **the entrepreneur will increase wages, as long as the marginal** (i.e. the additional utility per unit of) **product of labour exceeds the marginal cost of labour**. The most probable realistic scenario, when the system is used, is for a portion of the increase to be in vouchers (up to the limited monthly amount), and the rest to be in cash – as a wage raise²⁰.

On the other hand, workers will increase the labour supply, provided the income (net wage, labour cost minus taxes) is higher than the perceived disutility (lack of productivity and/or dissatisfaction) of labour.

When a tax break (reduction) is introduced, it effectively reduces the marginal cost of labour or increases worker's income, or both, depending on the elasticity of the production factor markets.

A 2007 *IW* research²¹ found, for instance, that employees in the medium skill range would increase their work hours by 20%, if their net income is increased

¹⁸ See: NSI: Workforce survey data, www.nsi.bg

¹⁹ The redistribution within the family is an additional, rarely accounted for, multiplier of the effects of introducing and using food vouchers. Below, in formulating the second hypothesis, we focus on this economic impact subtype.

²⁰ Even if, as discussed earlier on the fiscal behaviour in 2010, the nationwide income statistics show income growing faster than productivity, there is no indication that this is the case in the private sector, where the wages are traditionally lower. Private employers, however, probably feel a certain pressure to raise wages, especially for skilled staff, as a result of the higher wages in the public sector. It is also possible for the pension raises to reduce to some extent the redistribution within the family. Unfortunately, these effects have not been studied in Bulgaria after 2001.

²¹*IW*: Largest Cities Review, Q4 2007, Sofia.

by 10% to 16%. I.e., there is empirical evidence that labour supply in Bulgaria is elastic. The employer is able to pay higher net wages at any level of gross cost of labour. Taking into account the theoretical reasoning above, this would be the case until a new cost-benefit equilibrium is reached.

In different economic conditions, the balance may and must change: if, for instance, the profitability and/or productivity of a given enterprise changes, or the labour market conditions deteriorate (as was the case in 2009 and early 2010) or improve (like during the 2000-2008 period), or when changes occur on cyclical or seasonal basis in some sectors or in the overall economy.

Regulatory Implications

We already mentioned that the Labour Code states that food vouchers and other so-called social benefits may not decrease the agreed-upon gross (monthly) wages.

In other words, it is assumed that, without a serious effort to reshape all existing labour contracts in each individual company, vouchers can be extended only as an increase of the total amount of the worker's remuneration package.

Taking into account the above described conditions in the discussion on effective legislation, it is possible, however, to use vouchers as a substitution of cash wages, i.e. the wages being decreased by amendments to contracts by the same amount as that of the voucher, or when both parties somehow subscribe to this philosophy. This happens as a result of the impact of the business environment and other factors as discussed earlier.

Thus, for newly-employed workers, it is possible that the amount of the vouchers to be extended is already considered in the remuneration package calculation and bargaining. In reality, considerable shifts in the conditions and the usage of food vouchers to decrease contractual gross wages are not to be expected, simply because the majority of the employment contracts (all other things being equal) are already established and, of course, because many of those contracts are signed at the minimum-wage level. These are a significant part – according to various estimates, ranging between 25% and 28%²². This fact alone makes them hardly adjustable

²² See the assumptions on the percentage of informal Bulgarian economy below.

downwards. Therefore, at least **one fourth of the vouchers effectively raise the gross wages.**

The remaining 70%-75% are affected by considerations related to the market environment, the state of the business, the sales, the profits and the labour market, the three-to-four-month stability of remuneration, and the choice between different incentives and benefits within the company policy and within the provisions of the individual and collective employment contracts.

(Below, we make assumptions, taking into account these environmental phenomena and try to formulate credible hypotheses on the economic and fiscal impact of food voucher issuance in Bulgaria.)

The general assumption is that an introduction of a tax break on workers' pay (such as a tax-deductible food voucher) effectively increases the incentives for employers to expand employment and raise wages. Therefore, the issuance of vouchers may be considered a tool leading to an overall growth in labour income. The impact will be limited to the maximum volume of vouchers issued. We expect the impact, expressed in higher gross wages, to be statistically significant.

At the same time, because the system works towards increased income and productivity, in situations of economic upturns and downturns (cycles), the regulation on food vouchers should ensure cost-efficiency, transparency and flexibility.

Expected Quantitative Impact on the Economy

Introduction

Our model to calculate the various economic and fiscal impacts is based on accumulating all foreseeable effects described in the report so far.

All effects are marginal, i.e. they represent the change in respective variables as a result of a marginal increase of vouchers in use. This way, we can establish the net impact of the present state of development of the voucher system (i.e. the BGN 171.6 million limit for the vouchers)²³, as well as that of any new (additional) increase in the volume of vouchers.

Some of the important parameters, factored in the model, are expert estimates. Therefore, we provide the range of these estimates with the bands of the range serving as “optimistic” and “pessimistic” scenarios.

Assumptions

The following assumptions must be noted:

1. We **focus on the developments in the private sector**; it is unlikely that the status and the payment systems for the public employees will be changed somehow by the food voucher system in place (even if the public employee bonus systems are amended, as it is being planned²⁴).
2. The share of the food products in the consumer basket of those workers, who typically receive vouchers, is at least 30% of the country average per household, because they earn higher-than-average income. This share for the whole population, according to the NSI, is 35% and is used to calculate the consumer price index for 2010. This assumption is quite conservative, as it is between 10% and 15% lower than the national average consumer sentiment, according to the NSI data on household income and consumer spending.
3. **Workers’ total income will increase, if additional volumes of tax breaks by vouchers at a company or national level are introduced.** This opens the following possibilities: On the one hand, any labour-related tax reduction

²³ For the sake of calculation simplicity, we assume that this amount will not be changed and will be fully utilised.

²⁴ See finance minister presentation on the matter at: <http://www.minfin.bg/bg/presentation> .

leads to rising wage or employment levels, or both, if labour supply and demand are elastic, which is the case in Bulgaria. On the other hand, as mentioned earlier, any full or even partial substitution of cash remuneration by vouchers (within the set limits) is facing difficulties in terms of regulations and feasibility. These were not taken into account when calculating the static tax and fiscal impact. **However, when we later discuss the marginal dynamic fiscal impact, the real process of choice between different alternatives is included in the estimates.**

4. **Thus, we assume, that, in these dynamic estimates, the workers' gross wages are increased by at least 25% (i.e. for every BGN 100 increase in the value of vouchers, the sum of wages will rise by BGN 25). This estimate is based on the relative share of employees, who are supposedly paid wages at or close to the minimum social security threshold.** If employers decide to use food vouchers, they increase total remuneration. As an alternative, we can consider a more optimistic scenario, where wages in aggregate rise by half the value of additional vouchers used.
5. The share of **unreported wage "cash" payments** to be substituted by vouchers **is least 28%**, based on the findings of the survey on the number of employees, who admit they receive higher income than their reported wages²⁵. Using more pessimistic estimates on the informal economy in Bulgaria than the ones below, **a scenario may be developed, where the substitution rate is 40%**²⁶.
6. Last but not least, we assume that **the share of unreported transactions in the retail and restaurant industry is between 30% and 40%. This assumption is based on various observations²⁷, identifying these sectors of the economy as most exposed to unreported income (subsequently, tax evasion).** We use this range to calculate the additional turnover to be taxed with VAT and other taxes, when vouchers are used as a cash substitute in sales.

²⁵ *Vitoshka Research*, Center for the Study of Democracy (CSD), Index of the Hidden Economy in Bulgaria, Sofia, CSD, 2009

²⁶ Study of Incentives, Characteristics and Strategies of Firms Operating 'in the Shadows' (Bulgaria, Romania and Serbia), Sofia, IME, 2004

²⁷ See e.g. Center for the Study of Democracy, Policy Brief, pp. 6-7.

Employers' Fiscal Behaviour

Formal Economy

We assume that the usage (or increased volume) of food vouchers for tax-reduction purposes creates the following two types of general incentives for the businesses.

- For companies deciding to increase overall employees' pay by extending vouchers, this, in fact, creates a regressive income and social security taxation – i.e. **the last (marginal) lev of the income is not taxed**, while the rest of the income is taxed at the regular rate.
- Companies may aim to substitute cash payments by vouchers for a relatively long-term period (i.e. dynamically). **If the wage income they aim to substitute is duly reported and fully taxed, the food voucher system would create a net tax reduction for the company to the extent of the social and income tax savings.** This option however is facing serious obstacles in terms of regulation and feasibility: renegotiation of executed employment contracts, reallocation of future possible wage raises (e.g. instead of a BGN 100 all-cash income increase, the company may extend BGN 40 cash and BGN 60 in vouchers).

These cases, however, take into account only the companies reporting wages in full, and, therefore, subject to payroll taxes. For such companies, the incentive to reduce the tax burden is also derived from the fact that, in Bulgaria, in 2010, according to World Bank and **PricewaterhouseCoopers** annual survey, the ratio of labour-related taxes to commercial profit is relatively high – 229%.²⁸

Shadow Economy

In reality, we have strong reasons to believe that the level of informal employment is quite substantial. The above quoted survey by Djankov et al. found (based on the assessment on the informal shares of the GDP of the

²⁸ See: World Bank, *PricewaterhouseCoopers*, Paying Taxes in 2010, Washington DC, IBRD, 2009, p. 86, available at: <http://www.doingbusiness.org/documents/FullReport/2010/Paying-Taxes-2010.pdf>. Bulgaria is not an exception – in many EU and OECD countries (excluding US, UK, Luxembourg, Norway, and New Zealand), the situation is either similar or worse.

countries surveyed by the Global Competitiveness Report of the World Economic Forum for 2003-2007²⁹) that, for the middle-income countries (the group, to which Bulgaria belongs), the applicable **percentage of the informal economy is between 27.3% and 32.3% of the GDP**³⁰.

The numbers for the share of informal economic activity differ widely in the different surveys attempting to quantify it.

In 2001, IME multinational team established it at 40.8%³¹

Later, Friedrich Georg Schneider, authority on the subject, in 2005, estimated the overall size of the shadow economy in Bulgaria in 2003 to be 38.3 % of the official GDP³². In May 2008, the Centre for the Study of Democracy (CSD)³³ (based on a similar *Vitosha Research* survey of the Hidden Economy in Bulgaria Index) claimed that the size of the informal economy was between 20% and 35% of the GDP. In late 2009, the CSD³⁴ found that labour costs are unreported mostly in the service and the retail industry. The same study³⁵.

²⁹ This refers to *PricewaterhouseCoopers* tax experts' assessment in the countries surveyed, see: archive at:

<http://www.weforum.org/en/initiatives/gcp/Global%20Competitiveness%20Report/PastReports/index.htm>

³⁰ See NSI: Djankov, Ganser, McLiesh, Ramalho, and Shleifer, Op. cit., pp. 39-40, Tables 3 and 4.

³¹ It is a report created by the IME including the Harvard University and the Agency for Economic Analysis and Prognosis: IME, AEAP Harvard University, *The Shadow Economy in Bulgaria*, Sofia, IME, April 2001, available at: <http://ime.bg/en/articles/the-shadow-economy-in-bulgaria> and which reflects the state of the country following the economic crisis of 1996-1997; same assumptions are verified by international comparisons, see: Krassen Stanchev (editor), *Survey of the Incentives, Characteristics and Strategies of Firms Operating in the Shadows* (Bulgaria, Romania and Serbia), Sofia, IME, 2004, available at: www.ime.bg, as well as from migration incentive research, see: Krassen Stanchev (editor), *Migration in Bulgaria: Incentives and Constellations*, Sofia, OSI, 2005, available at: http://ime.bg/Bulgarian_Migration_Report_ENG.pdf.

³² Schneider, Friedrich, "Shadow Economies around the World: What Do We Really Know?" *European Journal of Political Economy*, 2005, Vol. 21 (No. 3), pp. 598-642, this survey is available at: http://www.iaw.edu/RePEc/iaw/pdf/iaw_dp_16.pdf.

³³ Roundtable: Hidden economy, trends and challenges, Centre for the Study of Democracy, 27 May 2008, Sofia

³⁴ Centre for the Study of Democracy, Op.cit., pp. 6-7.

³⁵ *Vitosha Research*, Centre for the Study of Democracy, *Hidden Economy in Bulgaria Index*, Sofia, CSD, 2009. *Vitosha Research* had similar findings in 2004 (on the eve of the introduction of the voucher system in Bulgaria), see extended summary at: <http://www.vitosha-research.com/fileSrc.php?id=1146>.

concluded that approx. 6% of all employed persons have no contract at all and that roughly ½ of all second job holders have no employment contract. Another finding was that 28.4% of the total number of employed persons state that they receive higher remuneration than the one stated in the contract. Almost half of them (or 12.9% of the total) acknowledge that their formal wage is equal to the statutory minimum established for social security purposes, and the unreported difference is paid cash.

The minimum share of the informal segment in Bulgarian economy is possible to calculate using the most reliable quantitative method, known as “contract-intensive-money” (CIM), introduced by Christopher Clague, Philip Keefer, Stephen Knack, and Mansur Olson in 1997.³⁶ **Our estimates, based on BNB’s monetary statistics, put CIM for Bulgaria at 17% minimum.**

According to the quoted *Policy Brief* by the Centre of the Study of Democracy, “the economic crisis has led to an increase of informal employment and the level of unreported work”. These findings are similar to our own observations and reports on the shadow economy in Bulgaria, conducted in the aftermath of the previous (1996-1997) crisis in Bulgaria and on the eve of the introduction of the food voucher system in the country.³⁷

³⁶ CIM is determined as a ratio of the money held outside banks to the total money supply. See: Christopher Clague, Philip Keefer, Stephen Knack and Mansur Olson, Contract-intensive Money: Contract Enforcement, Property Rights, and Economic Performance, Working Paper No 151, University of Maryland at College Park, IRIS, 1997, p. 8. The CIM method, however, does not take into account the in-kind income, which is estimated by Anton Marinov in 2007 to be 25%-30% for Bulgarian households in rural regions (see: Anton Marinov, *The Shadow Economy in Rural Regions of Bulgaria*, Springer Verlag, April 2008). In turn, these households, based on latest (2009) NSI data, are furthermore a significant part of the population (28.6%) (see: <http://www.nsi.bg/otrasal.php?otr=19&a1=376&a2=377&a3=386#cont>). It is not possible for the in-kind income of this part of the population not to play any role in the urban population and workers’ income redistribution, however, its research is a special task falling outside the scope of this research. (Below, we try to assess this effect in the overall assessment of the shadow economy.)

³⁷ Those surveys were led by the Institute for Market Economics and included: IME, AEAP Harvard University, *The Shadow Economy in Bulgaria*, Sofia, IME, April 2001, available at: <http://ime.bg/en/articles/the-shadow-economy-in-bulgaria>, Krassen Stanchev (editor), *Survey of the Incentives, Characteristics and Strategies of Firms Operating in the Shadows (Bulgaria, Romania and Serbia)*, Sofia, IME, 2004, available at: www.ime.bg, and Krassen Stanchev (editor), *Migration in Bulgaria: Incentives and Constellations*, Sofia, OSI, 2005, available at: http://ime.bg/Bulgarian_Migration_Report_ENG.pdf.

It seems probable that, in not-totally-formal and informal companies, the use of vouchers would, to a great extent, gradually displace the use of “cash” payments (to the level of legally allowed voucher payments). In particular, in the case when workers have so far been employed at the social security statutory minimum threshold (or the minimum wage, for that matter), any use of vouchers can only substitute the “cash” payment. Thus, no additional tax benefit is directly derived by either the employer or the employee – it is rather distributed as a positive impact on the economy. According to the quoted estimates and assumptions, **the “bleach” effect on the shadow contracts and transactions in food purchasing using food vouchers would be between 17% and 30% of the total cost of the vouchers**, in addition to the direct impact of increasing the voucher user income. Part of this impact would lead to an additional increase of the revenues on these transactions and to an increase of the VAT revenues to the national budget (see below).

Cost of Informal Payments

“Cash” payments to workers have some serious shortcomings.

First, there are the indirect flaws of this company policy, e.g. long-term worker disincentive due to precariousness and income unpredictability. The organisational cost to implement such payment schemes also creates difficulties for the entrepreneur, while the risk of being caught is always hard to quantify.

The effective tax rate³⁸ of 32.3% on the cost of labour for most employment categories (according to *IW* and *KC2* calculations) on formal wages is obviously a strong incentive to use such practices. In order to implement them, the employer needs to ensure cash flow, which is either unaccounted within the company, or is accounted but not reported, and which needs to be higher than the unreported volume.

The only other alternative is to report sales in full, pay corporate income (profit) tax and dividend tax in full, and extend “cash” handouts out of the net profit after tax. This is “cheaper” for the employer than wage payment per employment contract (the overall corporate income and dividend tax is 14.5% compared to the average tax burden on the cost of labour of 32.3%).

³⁸ A measurement of a division of the paid taxable income tax is taken.

In most businesses, except the micro-companies having 10 workers or less, the latter scheme is quite difficult to handle, so it is safe to assume that they predominantly use unreported sales as a source to finance additional “cash” payments for their workers. This, in turn, is a major problem for corporate governance, access to bank financing, and, in fact, company growth. **We can assume that some companies in this situation would choose to use vouchers and start to report part of their sales (probably up to the amount of the vouchers) which will lead to higher VAT-taxed revenues.**

Change of Consumer Behaviour

The use of food vouchers will effectively increase the households’ disposable income, if the above assumptions on the size of the shadow economy and the costs (risks) of the “cash-payment practices” are true.

At the individual household level, there are three distinct options:

- The income is increased by the amount of the vouchers;
- The income is increased only by a part of the amount of the vouchers;
- The income remains the same (vouchers substitute income that was previously paid by other means).

With the last option, it is highly unlikely that the availability of the food voucher system will increase consumer spending on food. Since the total income remains the same, the household will simply use vouchers to pay for purchases previously paid in cash.

When the overall income increases, consumer spending on food (and on other consumer goods) also increases, though not in direct proportion. When their income rises, people tend to spend more on durables, services, and, in most cases, they save (or invest) more.

In 2006, for example, about 37.2% of household spending was on food, while in 2009, it dropped to 35.4%³⁹. During this period, the average household income was increased by 55%, and the average spending on food products rose by 36.3%⁴⁰. **Therefore, we can expect that, when vouchers usage leads to an overall income increase, consumer spending on food will also rise.**

³⁹ See: NSI at www.nsi.bg.

⁴⁰ /W calculations on NSI household budget data, www.nsi.bg.

If the above household behaviour continues, for the persons employed at about the average wage level for Bulgaria⁴¹, the additional vouchers would lead to an increase of roughly 7% of the consumer spending on food by the recipients or their households.

All other conditions being equal, this means that, in 2010, some additional BGN 12 million will be spent on food (generating BGN 2.4 million VAT on these additional purchases).

It is also quite likely for the extension of vouchers to lead to a certain change in beneficiary behaviour and consumer spending.

The food vouchers affect the internal household income redistribution. If, for instance, one partner receives a voucher, its amount releases part of the total household income from buying food. For the sake of simplicity, it may be accepted, that this happens according to the traditional income redistribution levels within the family. The World Bank "Poverty Assessment" reports for 1997 and 2002 estimate this redistribution to be roughly 25% of the cash income.⁴² **If this ratio is preserved in 2010, the planned BGN 171.6 million amount of food vouchers would release some 42.9 million of income,** which the households may use on food and non-food products.

At first glance, based on the statistical average of some 35% of the household income being spent on food, the result would be BGN 15 million. However, as noted earlier, not all released household income would be used on food. As is the case with the vouchers, we have a marginal increase of this type of spending. Only a portion of the released income could be used on food, and, when estimating the impact on the redistribution within the family, we must take into account ¼ of the above amount of BGN 15 million. In other words, of the above hypothetical amount of BGN 42.9 million, one would expect BGN 3 million to be spent on food, BGN 39.9 million to be allocated to other purposes – to buy other goods and services or go to savings.

⁴¹ Based on NSI preliminary data it was BGN 625 in December 2009, see: Bulgaria Key Indicators, NSI, April 2010, p. 2, available online at: <http://www.nsi.bg/EPDOCS/KeyInd2010-04.pdf>.

⁴² See: Bulgaria: Poverty During the Transition, Report No. 18411-BUL and Bulgaria: Poverty Assessment, **October 29, 2002 (World Bank Report No. 24516-BUL, this report is accessible at:** http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2002/12/06/000094946_021122_04044990/Rendered/PDF/multi0page.pdf.

Some workers (predominantly the young and the single), who would otherwise choose the fast-food booths, may now prefer the company cantina (if available), a restaurant, accepting vouchers, or simply buy groceries and other products regularly in stores, accepting vouchers.

This impact is hard to quantify; we can only assume that this will occur in some cases and the changes would happen gradually.

Increase of Value Added

Any shift in consumer behaviour, that increases (on a relative basis) the demand for food products and restaurant services (i.e. the hospitality industry), will marginally increase the domestic value added produced. Given the basic structure of the Bulgarian economy, the fact that the voucher usage is restricted to food, and the limited monthly amount released for other purposes, as well as climate and tradition, it can be reasonably expected that the food industry and food retail in the general and the non-commercial sectors, as domestic-resource-driven activities, would benefit most from the system. **Even more probable is this outcome for the restaurants and the overall hospitality industry.**

Food vs. Other Sectors

NSI data⁴³ on the structure of production supports such hypothesis.

The input-output data for 2009 suggests that imported resources account for merely 14.4% of the value of the food industry production, and only 12.1% of the total retail value (transport and trade margins included). For comparison, the numbers for the gross value added are 23.3% and 21.7%, respectively.

In other words, of every BGN 100 spent on the average on consumer goods, the increase of the domestic value added is BGN 78.3, while the same amount spent on food products increases the domestic value added by BGN 88.9.

Other data can provide supportive evidence as well.

Imports of Consumer Goods

⁴³ See: <http://www.nsi.bg/otrasal-publikacii.php?otr=62>.

In 2009, for instance, the imports of consumer goods were BGN 6.7 million⁴⁴, while total household consumer spending, excluding energy and fuel, was BGN 17.3 million⁴⁵.

The ratio of imports to total domestic consumer spending was 39%. At the same time, imports of food products in 2009 reached BGN 1.7 million, while domestic consumer spending was BGN 6.9 million, or a ratio of imports to domestic consumer spending of 24.6%.⁴⁶

In 2008, the imports of food products represented 19.4% of the total consumer goods imports. In the same year, the retail sales of food products were 33% of the total retail sales (excluding vehicles and fuels).

All these data and insight suggest that, all other things being equal, a relative increase in the consumer spending on food (directly, or at restaurants) will have a net positive impact on the domestic value produced in Bulgaria. **Income spent on food generates a higher-than-average multiplication effect in the domestic economy.**

Taking into account comparative data on the share of imported goods in food sales and consumer purchases and that of other goods, **we could reasonably accept a multiplier of 1.2-1.25. This means that every lev spent on food** generates between 20% and 25% more value added in the domestic economy, than the same lev spent “uniformly” across the “average” consumer basket..

Taking into account the redistribution within the family and the possible additional spending on food, depending on the value of the multiplier, the additional value added resulting from the use of food vouchers in 2010, would be between BGN 34.9 and 43.6 million. (The respective additional contribution to the national budget in terms of VAT – BGN 6.9-8.7 million.)

Food Industry, Service Sector, and Employment

An increase of gross household income and the subsequent growth in consumer spending will have an overall positive impact on employment. We can, therefore, expect a growth in job numbers on a macroeconomic level.

⁴⁴ See: BNB foreign trade statistics www.bnb.bg.

⁴⁵ See: NSI CPI consumer basket for 2010, based on data on consumption for 2009

⁴⁶ Ibid.

Even if we accept that the food voucher system has only a moderate impact on the overall wage levels, the shift in consumer behaviour towards a relative increase of the demand for food-related services will have a positive effect on employment levels.

Restaurants and hotels, retailers, transportation and logistics, and other related services are typically labour-intensive. In other words, the labour productivity in these industries is lower than the average for the economy. 2009 NSI data⁴⁷ demonstrates that sector productivity in services (retail and wholesale, transport, logistics, restaurants and hotels, communications) was BGN 13,200 of value added per employee, or 11.5% lower than the average BGN 14,900 per employee for the overall economy.

A breakdown by Eurostat⁴⁸ shows that, in Bulgarian hotels and restaurants, productivity in 2007 was as low as 51.3% of the national average (BGN 6,413 per person employed in the sector, compared to the BGN 12,494 national average), in other words, it takes 95% (almost twice) more workers in this sector to produce the same amount of value added.

That being said, we can expect that a **relative increase in household spending on food-related services (both retail and restaurant) will have a positive net impact on domestic employment in Bulgaria.**

Assuming a monthly total income increase to the extent of the voucher amount of BGN 60, for every new 1000 workers using vouchers, we could expect 24-27 new jobs to be created in the food and hospitality industry. This would mean that for every new thousand beneficiaries, a new average (according to the NSI statistics on the average monthly income for December 2009⁴⁹) income between BGN 180 and 202.5 thousand is generated, and the taxes and social security on this income are between BGN 56.7 and 63.8 thousand⁵⁰. (At this level of analysis, it is impossible to predict the level of expansion of the circle of beneficiaries up to which this effect would be preserved.)

⁴⁷ See: NSI Gross domestic product data, www.nsi.bg.

⁴⁸ See: Eurostat, Structural Business Statistics, <http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/themes>

⁴⁹ See: NSI, <http://www.nsi.bg/KeyInd/KeyInd2010-04.pdf>

⁵⁰ See the applicable tax break relief overview above

Tax Compliance in Retail and Services

As explained in the paragraph on the incentives, the use of vouchers may lead to either an increase of the gross income of the employees or to a substitution of cash payments by voucher payments (or a combination of both).

In both cases, however, any increase to the amount of vouchers changes the payment structure in household spending. The share of vouchers in the total disposable income is increased. This means that a growing share of sales will be paid in vouchers instead of cash.

For the suppliers (retailers, restaurant operators, etc.), this revenue will have to be reported and, therefore, fully taxed. For cash payments, the retailer has the incentive not to issue a tax receipt (i.e. to report revenue) and to report the sale, respectively.

This way, no VAT and income tax is paid. In turn, the unreported revenue allows the retailer (restaurant owner) to pay, at least partially, wages in cash, avoiding payment of personal income tax, social security and health insurance.

The assessments above and elsewhere on the share of the informal economy in Bulgaria, for the period after the food voucher system was introduced, support the assumption that its share in retail and hospitality industry within the overall economy is significant. This would mean that tax breaks on consumer spending (i.e. a preference, reducing the income and payroll tax) increase the overall tax payments, which is, by the way, supported by Bulgarian history of income-tax collection since the gradual tax reduction started after the end of the 1990s.

Within the above context, **any transparent, simple, competitive, and cost-effective use of food vouchers should drive an increase in tax compliance.**

On a **macroeconomic level**, it would maintain household spending, which is fully reported. Vouchers may either substitute or increase cash wage income; either way, the relative share of voucher-paid sales is increased, and, therefore, the tax base is expanded.

On a **micro level**, the introduction of vouchers favours most retailers and restaurant operators, accepting them; these companies are typically larger and duly report their revenues; furthermore, it creates incentives for

household consumer spending on domestic products. The “bleach” effect would probably be more strongly expressed at smaller businesses and restaurants, however, a special analysis is needed to determine when exactly, in what conditions, and to what extent this will happen.

We can expect an increase in VAT collection as a direct consequence of the use of vouchers (more revenues reported), with more national budget revenue from corporate income and payroll taxes in the retail sector as a secondary effect.

Attempting to Quantify the Economic and Fiscal Impact

Food Voucher Cost and Benefit

The impact assessments may be idealistic or realistic. These are closer to reality when they answer the question who wins and who loses from a certain policy and when they take into account all side effects and make an attempt to review the unforeseen consequences.

Realistic assessments assume that it is not a “win-or-lose” choice, but rather a case of marginal benefit and cost for the national budget and the system participants. Idealistic assessments show borderline scenarios where all benefits go to the beneficiaries and all costs are borne by the state. Their role is to present the limits of system usage, and by doing so, to facilitate development of realistic methods to reform the system.

The remaining part of our analysis focuses first on the closer-to-reality types of cost/benefit allocation, then it moves to describe the borderline scenarios, and finally, compares food vouchers to other forms of social policy.

For the workers, the impact seems positive, in terms of higher disposable income, due to the tax deduction of vouchers, as well as better nutrition and health conditions.

For the national budget, there is a system, which is transparent and relatively easy to control, shrinking the realm of the shadow economy, due to the lower taxable revenues as a direct effect of the vouchers. All payments, made by the workers in food stores and restaurants, are reported to the government for fiscal and statistical purposes, which makes the income reported and taxed. The transparency of the system, as shown earlier, contributes to a smaller share of shadow economy and reduces the real costs to the national budget.

Realistic Scenarios for Cost/Benefit Allocation, Taking into Account Bargaining Options

Net Benefit for Employers

In order to analyse the impact of the food voucher system, three basic types of payment change should be distinguished, if a company decides to use additional vouchers:

1. change in the total cost of labour,
2. change in worker's net wages, and
3. change in the tax/social security burden (the difference between the total cost of labour and the net wages).

Here, the different possibilities, illustrated by the income and tax breakdown for the individual worker, are presented.

The baseline scenario represents payment of BGN 600 gross monthly wage without a voucher, used here instead of the NSI-reported BGN 625 monthly wage (for December 2009), in order to both simplify calculations and preserve the conservative nature of estimates.

At this gross wage level, the employer has a total cost of labour (including employer's social security contribution) of BGN 701. At the same time, the worker's net wage is BGN 475. The difference between the two is the tax and social security burden or the income tax plus all social security withholdings.

With Option 1, we assume a BGN 60 voucher substituting BGN 60 of the gross wages. In this case, the result is an increase of the net wages (including voucher) by BGN 12,5 and a reduction of the cost of labour by BGN 10,1. This possibility, in fact, shows the development in case the entrepreneur manages somehow to fully substitute the cash payment by a voucher. And in the opposite case, if the voucher system is abandoned, the employer must fully (i.e. by BGN 60) substitute the amount of the previously extended voucher by cash income.

Option 2 shows the development in case the employer only partially (e.g. 75%) substitutes the cash payment by the voucher amount. Thus, the total remuneration – wage plus voucher – is raised by BGN 15. In the opposite case, if

the voucher system is abandoned, we assume that the employer will offset the lost voucher by a BGN 45 cash wage raise. A slight increase of the cost of labour by BGN 7,4 is observed, while the net wage increase is higher than that in Option 1.

Option 3 shows the development in case the employer adds the full voucher amount to the total income of the worker, i.e. the agreed-upon cash wage is preserved, and the BGN 60 monthly voucher is added on top of it. Therefore, if the voucher system is abandoned, the worker's cash income remains the same.

Table 1: Employer Voucher Usage Scenarios

Vouchers and Wages				
	Baseline scenario	Option 1	Option 2	Option 3
Gross wages	600	540	555	600
Voucher	0	60	60	60
Net wages (cash)	474.66	427.194	439.0605	474.66
Employee portion of taxes and social security	125.34	112.806	115.9395	125.34
Employer portion of social security	101.4	91.26	93.795	101.4
Taxes				
	Baseline scenario	Option 1	Option 2	Option 3
Net wages (cash plus voucher)	475	487	499	535
Taxes and social security	227	204	210	227
Total cost of labour	701.4	691.26	708.795	761.4
Tax and social security burden in %	32.3%	29.5%	29.6%	29.8%
Change in cost of labour and wages				
	Baseline scenario	Option 1	Option 2	Option 3
Change in cost of labour	0.0	-10.1	7.4	60.0
Change in net wages		12.5	24.4	60.0

Assuming unchanged labour supply and demand, there are two borderline scenarios:

1. The worker bears the full tax burden (at zero labour supply elasticity). In this case, if a voucher is introduced, the net wages will rise without

changing the total cost of labour. As a result, the gross wages become BGN 549, the net wages grow to BGN 494, while the cost of labour remains unchanged.

2. The employer bears the full burden (at infinitely elastic labour supply). In this case, if a voucher is introduced, the gross wages become BGN 525 (i.e. decreased by more than the voucher amount), the net wages remain unchanged, while the cost of labour is decreased to BGN 674.

Without any restrictions, the effect would be **a reduction of the gross wages (not counting the voucher)** in all cases. In the example shown, this would lead to a drop from the BGN 600 base wages to between BGN 525 and BGN 549, after introducing the voucher. The following charts illustrate the results of these calculations.

Chart 2: Marginal Impact at Real Bargaining Conditions

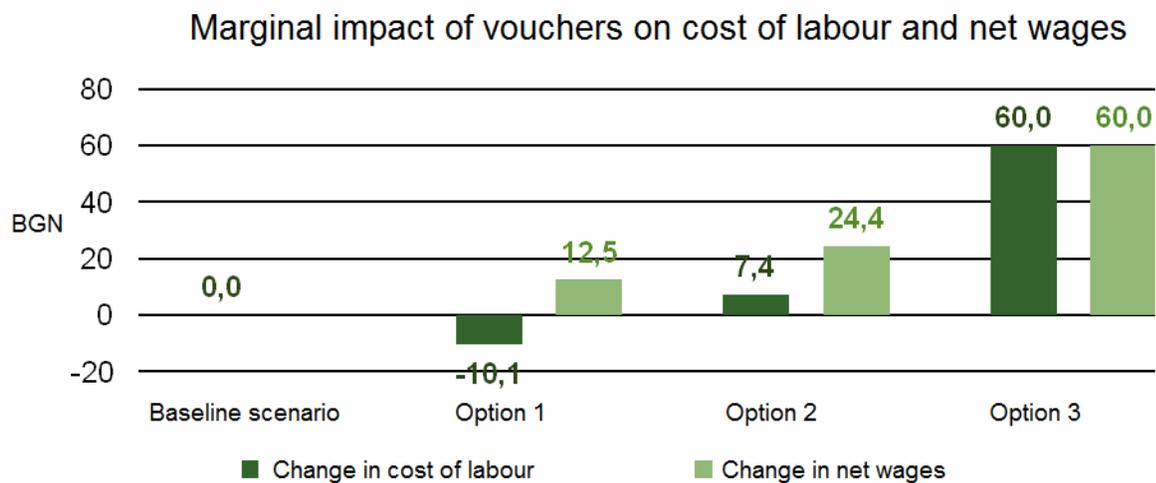


Chart 3: Employer's Cost of Labour



Net Benefit for the Individual Worker and Fiscal Cost – Generalised Examples

These examples illustrate the “cost” to the national budget when vouchers are used at different assumptions for the achieved net income increase per worker. The calculation is based on the following assumptions:

- The quota is hypothetically increased by one additional worker;
- The worker’s income is increased by different values, the three options are used for illustrative purposes;
- The cost to the national budget, measured in terms of lost revenue, is calculated in comparison to the possibility to allocate the same cost of labour to the employer as wages or in-kind benefits;
- The other assumptions are identical with the ones used in the previous calculations.

The result of these calculations is that the impact of a program expansion on the workers’ net income is positive. Every incremental lev, not paid to the national budget as a result of the food voucher system expansion, generates between BGN 1,90 and 12,09 incremental net income for the employed persons.

Option 1: The worker's net income is increased by BGN 12.5

Here, we review the effects of the quota increase by 1 person, comparing the expected benefit for this person with the lost revenue for the national budget.

There are two basic options: if the monthly amount of BGN 60 was allocated as wages, and if the same amount was allocated as in-kind benefits.

If the BGN 60 amount was allocated as wages instead of voucher, the monthly lost revenue to the national budget per worker would be BGN 6.57. The worker's monthly net income, however, is increased by BGN 12.5

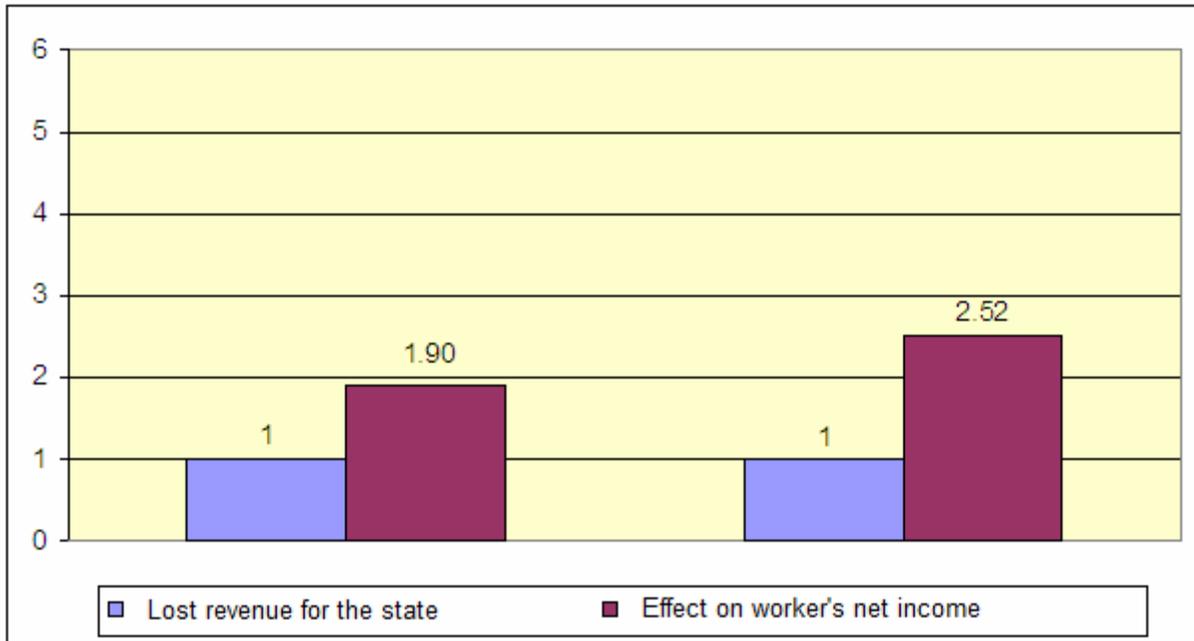
This way, for each 1 lev, not paid to the national budget (could be viewed as 1 lev cost to the state), as a result of the existence of food vouchers, workers gain net BGN 1.9, which would raise their living standard and would be used on food.

If the BGN 60 amount was allocated as in-kind benefits instead of voucher, the lost monthly revenue to the national budget per worker would be BGN 4.96. The worker's monthly net income, however, is increased by BGN 12.5.

This way, for each 1 lev, not paid to the national budget (could be viewed as 1 lev cost to the state), as a result of the existence of food vouchers, workers gain net BGN 2.52, which would raise their living standard and would be used on food.

Therefore, with this option, 1 lev lost revenue to the national budget generates between BGN 1.9 and 2.52 net income for the workers.

Chart 4: Minimum and maximum impact on workers' net income, resulting from BGN 1 lost revenue to the national budget as a result of increased food voucher quota



Note: Here, and on the following chart, the lost national budget revenue is measured using either a base option of worker income increase by means of wages (the first two bars on the chart) or by means of in-kind benefits (the last two bars).

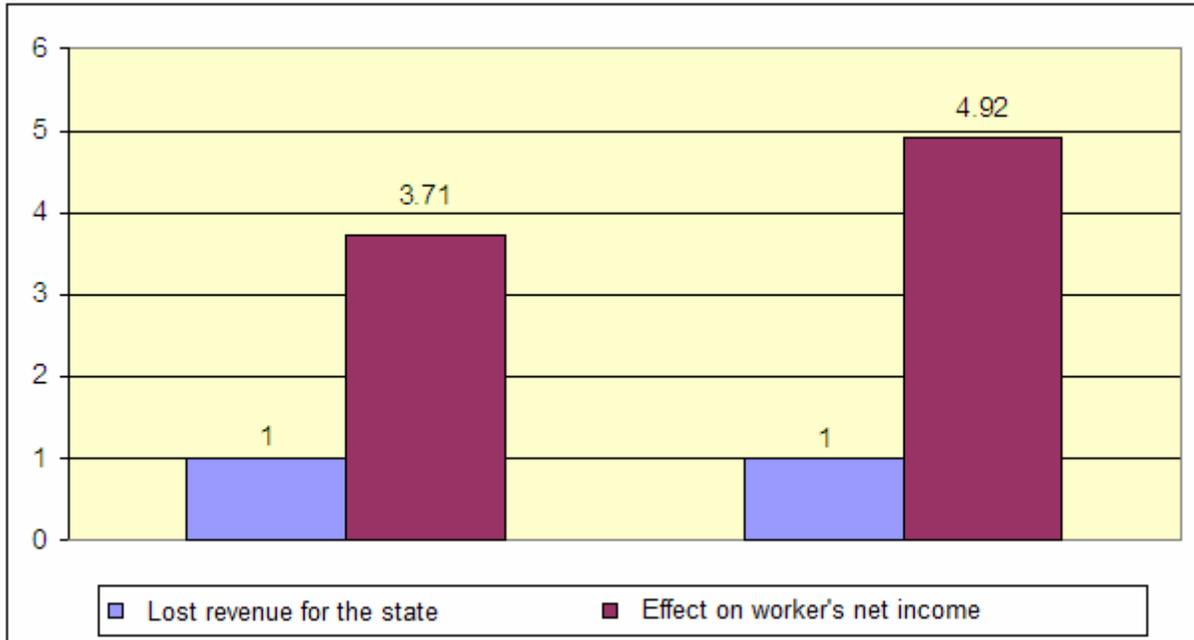
Option 2: The worker's net income is increased by BGN 24.4

Here, we analyse the effects of the quota increase by 1 person, comparing the expected benefit for this person with the lost revenue for the national budget. There are two basic options: if the monthly amount of BGN 60 was allocated as wages, and if the same amount was allocated as in-kind benefits.

If the BGN 60 amount was allocated as wages instead of voucher, the lost monthly revenue to the national budget per worker would be BGN 6,57, while the worker's monthly net income, however, is increased by BGN 24,4.

This way, for each 1 lev, not paid to the national budget (could be viewed as 1 lev cost to the state), as a result of the existence of food vouchers, workers gain net BGN 3.71, which would raise their living standard and would be used on food.

Chart 5: Minimum and maximum impact on the workers' net income, resulting from BGN 1 lost revenue to the national budget as a result of increased food voucher quota



If the BGN 60 amount was allocated as in-kind benefits instead of voucher, the lost monthly revenue to the state per worker would be BGN 4.96. The worker's monthly net income, however, is increased by BGN 24.4.

This way, for each 1 lev, not paid to the national budget (could be viewed as 1 lev cost to the state), as a result of the existence of food vouchers, workers gain net BGN 4.92, which would raise their living standard and would be used on food.

Therefore, with this option, 1 lev lost revenue to the national budget generates between 3,71 and 4,92 net income for the workers.

Option 3: The worker's net income is increased by BGN 60

With this option, we analyse the effects of the quota increase by 1 person, comparing the expected benefit for this person with the lost revenue for the national budget. There are two basic options: if the monthly amount of BGN 60 was allocated as wages, and if the same amount was allocated as in-kind benefits.

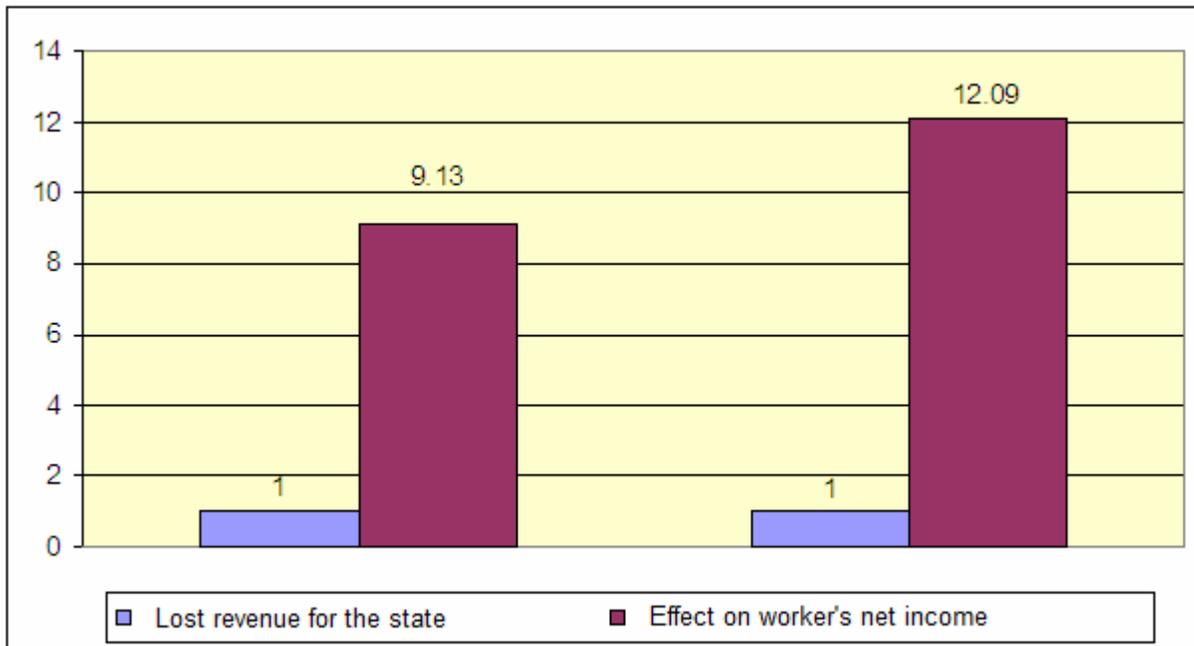
If the BGN 60 amount was allocated as wages instead of voucher, the lost monthly revenue to the national budget per worker would be BGN 6.57. The worker's monthly net income, however, is increased by BGN 60.

This way, for each 1 lev, not paid to the national budget (could be viewed as 1 lev cost to the state), as a result of the existence of food vouchers, workers gain net BGN 9.13, which would raise their living standard and would be used on food.

If the BGN 60 amount was allocated as in-kind benefits instead of voucher, the lost monthly revenue to the national budget per worker would be BGN 4.96. The worker's monthly net income, however, is increased by BGN 60.

This way, for each 1 lev, not paid to the national budget (could be viewed as 1 lev cost to the state), as a result of the existence of food vouchers, workers gain net BGN 12.09, which would raise their living standard and would be used on food.

Chart 6: Minimum and maximum impact on the workers' net income, resulting from BGN 1 lost revenue to the national budget as a result of increased food voucher quota



Therefore, with this option, 1 lev lost revenue to the national budget generates between 9.13 and 12.09 net income for the workers. In other words, currently, food vouchers generate a positive multiplication effect on workers' net income

between BGN 1,9 and 12.09 per each lev lost revenue to the national budget, which makes it a successful social program, totally transparent for both the government and the stakeholders.

General Fiscal Effect Assessment

Fiscal Effects of the Current Quota at Different Options of Employer Behaviour

The goal is to assess how the current voucher quota affects the national budget, taking into account the three options of employer behaviour, reviewed in Table 1. The general assumptions on the dynamic effects of the system's impact are:

- Employers are free to choose their social policies – in terms of wages, in-kind benefits, or vouchers;
- All workers pay the social security contribution level on third category occupational hazard for persons, born after 1959;
- The share of the shadow economy is 30% of the wages and the consumer spending;
- The actual consumer spending depends on the reported and unreported income;
- Workers use 90% of their income on consumer spending;
- The profit margin at food stores and restaurants is 20% of revenues.

Table 2: Fiscal impact of a quota of BGN 171.6 million

	Base option	Option 1	Option 2	Option 3
Taxes (employer)	17,564,990	5,513,699	9,904,946	23,078,688
Taxes (employee)	12,420,957	3,898,973	7,004,212	16,319,930
Tax on social expenses	0	0	0	0
Personal income	11,028,304	3,461,815	6,218,891	14,490,119
Corporate	-	-	-	-
VAT	10,403,692	14,360,000	16,960,923	24,763,692
VAT	18,565,931	31,871,415	36,512,898	50,437,346
Total	49,176,490	30,385,902	42,680,024	79,562,392

Source: KC2 and IW calculations.

Table 3: Fiscal effects of a quota of BGN 171.6 million

	Base option	Option 1	Option 2	Option 3
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Revenue to the national budget	49,176,490	30,385,902	42,680,024	79,562,392
Difference from the base option*	-	18,790,589	-6,496,466	30,385,902

Source: KC2 and IW calculations.

Note*: The negative sign means lost revenue, while the positive sign means additional revenue to the national budget.

The assessments with the above assumptions show that the net lost revenue to the national budget would be, at the most pessimistic scenario for employer behaviour, some BGN 18.8 million. If the vouchers' effect leads to an increase of the total income with option 2, the net impact would be about three times lower. If we assume that the system leads to full transfer of benefit to the workers, then the total fiscal effect, taking into account all probable indirect and dynamic changes in the economy, would be some positive BGN 30.4 million. Compared to the baseline scenario, this represents roughly 60% increase of the revenue to the national budget.

Option 1 is a borderline and completely unrealistic scenario. If the lost revenue is divided by the number of months in the year and the number of beneficiaries, the result would be BGN 6.57 lost monthly revenue to the national budget per food voucher user. This is more than three times lower than the most popular estimate of the monthly cross-subsidy for the vouchers. Option 2 is probably most realistic: with this option, the resulting monthly subsidy is BGN 2.23, i.e. nine times lower than the initial assumption.

Fiscal Effects of a Quota Increase at Different Options of Employer Behaviour

The goal is to assess the fiscal effects with the different employer behaviour options, if the total voucher quota is increased. This represents a "marginal" effect, which gives an idea on the expected changes in national budget revenue upon a decision to increase or decrease the quota, respectively. For illustration purposes, let's consider a quota increase of BGN 10 million. The general assumptions on the dynamic effects of the system's impact are:

- Employers are free to choose their social policies – in terms of wages, in-kind benefits, or vouchers;

- All workers pay the social security contribution level on third category occupational hazard for persons, born after 1959;
- The share of the shadow economy is 30% of the wages and the consumer spending;
- The actual consumer spending depends on the reported and unreported income;
- Workers use 90% of their income on consumer spending;
- The profit margin at food stores and restaurants is 20% of revenues.

Table 4: Fiscal impact of a BGN 10 million quota increase

	Base option	Option 1	Option 2	Option 3
Taxes (employer)	1,023,601	321,311	577,211	1,344,912
Taxes (employee)	723,832	227,213	408,171	951,045
Tax on social expenses	0	0	0	0
Personal income	642,675	201,737	362,406	844,413
Corporate	-606,276	-836,830	-988,399	-1,443,106
VAT	1,081,931	1,857,309	2,127,791	2,939,239
Total	2,865,763	1,770,740	2,487,181	4,636,503

Source: KC2 and IW calculations.

Table 5: Fiscal effects of a BGN 10 million quota increase

	Base option	Option 1	Option 2	Option 3
Revenue to the national budget	2,865,763	1,770,740	2,487,181	4,636,503
Difference from the base option*	-	-1,095,023	-378,582	1,770,740

Source: KC2 and IW calculations.

Note*: The negative sign means lost revenue, while the positive sign means additional revenue to the national budget.

The assessments with the above assumptions show that the net lost revenue to the national budget would be, at the most pessimistic scenario for employer behaviour, some BGN 1 million for each BGN 10 million total admissible quota increase. If the vouchers' effect leads to an increase of the total income with option 2, the net impact would be about three times lower. If we assume that the system leads to full transfer of benefit to the workers, then the total fiscal effect, taking into account all probable indirect and dynamic changes in the economy, would be some positive BGN 1.77 million for each incremental BGN 10 million quota increase.

Pessimistic (Conservative) Scenario from a Fiscal Standpoint

Earlier, we reviewed the various dynamic effects, assuming these will be manifested in the economy if a food voucher system exists with the current parameters, and taking into account the specifics of the labour market, the informal activity, and the present business condition in Bulgaria.

In this section, we focus in more detail on a conservative approach from a fiscal standpoint, where any possible and probable effects increasing revenue to the national budget are being ignored. Such scenario is hardly probable, yet it helps outline the potentially most negative (most pessimistic) development in terms of risks for public finance management. Again, we focus on two cases – effect of the current quota, and effect (marginal) of a quota increase.

Pessimistic Scenario: Current Quota

It is assumed that, at **the current food voucher quota** in Bulgaria, i.e. a total quota of BGN 171.6 million and 238,333 beneficiaries of the system in 2010, and tax-exempt monthly amount of BGN 60 per worker, there are three options:

1. the amount is distributed as wages to workers
2. the amount is distributed as in-kind benefits
3. the amount is distributed as vouchers.

In accordance with the above estimates for the informal sector, we believe that 70% of workers' income is reported, the remaining 30% being "cash" payments, which are neither reported, nor taxed. (The situation with the income utilisation at food stores and restaurants should be similar – 70% of the expenses are reported and the other 30% are in the shadow economy.)

The net revenue loss for the national budget has been calculated as the difference between all the contributions and taxes paid by employers and employees and the contributions and taxes paid by employers, when food vouchers exist, and all their payments to the budget, when food vouchers do not exist. This estimate includes not only those workers and employers, who benefit directly from the food vouchers, but also the indirectly affected employers and workers in the food stores and restaurants, where the vouchers are used or could be used.

As discussed earlier, this estimate does not take into account the fact that the food vouchers do not generate revenue for the national budget, which is taken into account when calculating the net fiscal impact. By spending at food stores and restaurants, employees directly generate revenues in terms of VAT, personal, and corporate income taxes. This result – growth of reported sales of food stores and restaurants, hiring more personnel etc. – is not taken into account. In the table below, the lost revenue reflects the difference in national budget revenue, when the voucher system exists and the employers have the choice either to

allocate the cost of labour as wages (lost revenue in terms of payroll taxes), or to extend these to workers as in-kind benefits (lost revenue in terms of payroll and benefit taxes).

Table 6: Impact without accounting for any secondary effects (BGN)

Options	Revenues	Lost revenue
Option 1: Wages	49,176,490	-18,790,589
Option 2: In-kind benefits	44,574,526	-14,188,624
Option 3: Vouchers	30,385,902	

Below, we review different scenarios for national budget revenue at the above assumptions and with the same three options for employer behaviour – full payment of wages, in-kind benefits, and food vouchers.

Table 7: Cash Expression of Employers' Social Policy (BGN)

	Wages	In-kind benefits	Vouchers
Payroll taxes (employer)	17,564,990	13,888,564	5,513,699
Payroll taxes (employee)	12,420,957	10,201,992	3,898,973
Tax on benefits	0	9,710,590	0
Personal income tax	11,028,304	2,074,453	3,461,815
Corporate income tax	-10,403,692	-10,334,132	-14,360,000
VAT	18,565,931	19,033,059	31,871,415
Total	49,176,490	44,574,526	30,385,902

Even at these borderline assumptions, the comparative advantages of food vouchers are evident.

If these were the only social policies of employers, the national budget revenues in terms of VAT are significant compared to the other options. In other words, even in this case, vouchers perform relatively well from a fiscal standpoint, since they provide the most reliable source of revenue. In terms of social taxes, these are as neutral as with the hypothesis of full calculation of the benefits in the wages. The losses for the national budget would be most significant in terms of corporate income tax, however, it is the source of revenue which is hardest to control.

Table 8: Lost Revenues for the National Budget, Comparison between Vouchers and the Other Two Options

	Vouchers or Wages	Vouchers or In-Kind Benefits

Payroll taxes (employer)	-12,051,291	-8,374,865
Payroll taxes (employee)	-8,521,984	-6,303,020
Tax on benefits	0	-9,710,590
Personal income tax	-7,566,489	1,387,362
Corporate income tax	-3,956,308	-4,025,868
VAT	13,305,484	12,838,356
Total	-18,790,589	-14,188,624

The same is evident in a comparison of the losses for the national budget at combinations of different forms of employer social policies. The combination of vouchers and wages, even if resulting in relatively higher direct losses, is more reliably controlled by both the government and the worker, than the combination of wages and in-kind benefits.

Pessimistic Scenario with a Quota Increase

This scenario is based on the above assumptions, however, it also assumes a quota increase of additional BGN 10 million, while preserving the food voucher monthly limit of BGN 60 per worker. The fiscal effects are summarised in the following table.

Table 7: Fiscal effects at present tax breaks with a BGN 10 million quota increase and no dynamic effects

Options	Revenues	Lost revenue
Option 1: Wages	2,865,763	-1,095,023
Option 2: In-kind benefits	2,597,583	-826,843
Option 3: Vouchers	1,770,740	

Based on this estimate, the lost revenues would vary between BGN 826 thousand and BGN 1.095 thousand. This does not take into account the dynamic impact of revenue and wages, which would be reported and taxed. Therefore, it is assumed, that there will be no effect of reporting existing unreported revenue as a result of voucher usage.

The findings on the general fiscal behaviour of the system are preserved, when the employer's choice is taken into account. In order to make the calculations, however, some assumptions are necessary. Namely:

- Employers are free to choose their social policies – in terms of wages, in-kind benefits, or vouchers;

- All workers pay the social security contribution level on third category occupational hazard for persons, born after 1959;
- The share of the shadow economy is 30% of the wages and the consumer spending;
- The actual consumer spending depends on the reported and unreported income;
- Workers use 90% of their income on consumer spending;
- The profit margin at food stores and restaurants is 20% of revenues.

Food Vouchers Compared to Other Social Policies

The food voucher impact should be used to compare this policy with other forms of tax-break-based social policy. For the time being, the most comprehensive research of these preferences was made in 2009 by the Institute of Market Economy (IME)⁵¹.

It shows that, based on NRA data, in 2008 alone, the non-taxable income of 44,600 farmers and tobacco growers was BGN 1,092,943,727. The same year, 1,593 farmers utilised remitted tax of BGN 23,580,889. This amounts to roughly BGN 14,900 per recipient. Apparently, the cost and benefit of this tax break has not been seriously reviewed. Still, it is obvious that the amount is more than 20 times larger than the BGN 720 of food vouchers per employee on an annual basis, and the non-taxable amount – more than BGN 110 million – is comparable with the lost revenue for the national budget in terms of personal income tax, if the voucher system covered all persons employed in the private sector. Apart from that, these citizens also benefit from direct and indirect subsidy programmes.

On 5 May 2010, the Ministry of Labour and Social Policy announced that it has increased the subsidised employment programme by BGN 10 million on the premise that it has “a proven quick overall effect on the employment of socially disadvantaged unemployed persons.” With this, the subsidised employment programme reached a total of BGN 76 million or BGN 3,300 annual average per

⁵¹ See: Petar Ganev. Gaps in Tax Laws Lead to Half a Billion Leva Losses. (Tax preferences in Bulgaria). Sofia, IME, October 2009, available at: http://ime.bg/uploads/068cd0_TaxExemptions_IME.pdf.

beneficiary. The increase was made on the grounds of rising unemployment⁵². However, just some ten days later, a drop of unemployment was announced.

The point is not to put the private-sector employees against the beneficiaries of these programmes or farmers and tobacco growers, but rather to provide some context.

For each private-sector and non-subsidised state enterprise employee (including farmers) in Bulgaria, there are two citizens, who are either retired, or children and students, or unemployed, or public employees.

Another specific feature of this context is the total government spending. If the planned government spending is reduced by the Bulgarian contribution to the EU budget, and the daily spending is calculated, the total food voucher quota would equal three-and-a-half days of government spending. (Under the 2010 Budget Act, this daily amount of spending is almost BGN 49 million, and, after the budget adjustment, it would probably reach BGN 49.6 million.).

If we assume that the minimum above calculated “bleach effect” on the shadow economy of the effective food voucher programme is 1.17, it would help report more than BGN 29 million of unreported income, i.e. more than half of the daily government spending or significantly higher than the tax remitted to farmers in 2008.⁵³

This impact is further strengthened by the VAT payable on the amount of the issued food vouchers – probably around BGN 25 million – and the VAT on the additional consumer spending through redistribution within the family and other indirect impact.

Presently, it is impossible to track and compare the effects of combining a social policy such as the food vouchers with the minimum wage increase, which,

⁵² See details at: <http://www.mlsp.government.bg/bg/news/news.asp?newsid=1343&catid=1>. Applied since 2004, Bulgarian Subsidised Employment Programmes are Far from Best Standards. Without going to much detail, we could recommend the State of Washington WorkFirst Programme, see: <http://www.workfirst.wa.gov>, Adriana Mladenova’s review of these programmes’ deficiencies in Bulgaria (Adriana Mladenova. Subsidised Employment – But What are the Effects? Economic Policy Brief, 12.12.2008, at: <http://ime.bg/bg/articles/subsidirana-zaetost-a-kakwi-sa-efektiite>), as well as the account of the city of New York’s experience with similar programmes, made by one of the WorkFirst employment programme pioneers, Jason Turner (see: <http://www.heritage.org/Research/Reports/2003/05/Universal-Engagement-of-TANF-Recipients-The-Lessons-of-New-York-City>).

⁵³ In fact, the range of this impact is between BGN 29.1 and 51 million.

apparently, is planned for 2010 H2. In general, it could be reasonably assumed that, presently, the relatively assured usage of vouchers to increase income is in the contracts made at minimum wage. Historically, since 2003, Bulgaria maintains a minimum-wage level of about 40% of the average wage. Probably, this level creates competitive problems for Bulgarian businesses and the overall economy, having productivity level of about 30% of that in Germany. The second common negative effect is on the employment level: probably, the minimum wage, together with the social taxes and some restrictions in the bargaining freedom (for instance, the difficulties in executing temporary or hourly employment contracts), contribute to a higher-than-possible unemployment. The planned increase of the minimum wage in 2010 will expand the shadow segment of the economy. Food vouchers do not cause such negative impact.

Conclusion

Below, we formulate briefly the most significant conclusions of the above analysis.

In Terms of Macroeconomic Impact

At the presently effective food voucher issuance system in Bulgaria, there is an apparent acting **multiplier with a value between 1.2 and 1.25**. This means that **every lev spent on food** generates between 20% and 25% more value added in the domestic economy, than the same lev spent “uniformly” across the “average” consumer basket.

This is true for several reasons:

- The impact of tax reduction in Bulgaria is similar to that in other developed economies and it is well explained in literature;
- The “bleach” effect is mainly in industries where the domestic component of the value added is most significant;
- Vouchers have impact on the redistribution within the family, where a significant share of the disposable income is released, part of which is spent on food, and another part – on other consumer spending or in savings.

In Terms of Voucher System Participants

Vouchers bring benefit both for workers and employers. This is why employer and labour organisations defend the voucher system.

The impact of a program expansion on the workers’ net income is positive. Every additional lev, not paid to the national budget, as a result of the food voucher system expansion, generates between BGN 1.9 and 12.09 incremental net income for the employed persons. The positive impact on businesses is evident in terms of positive macroeconomic developments (all other conditions being equal).

In Terms of National Budget Revenue

The assessments with the above assumptions show that the net lost revenue to the national budget is, at the most pessimistic scenario for employer behaviour, some BGN 18.8 million. If the vouchers' effect leads to an increase of the total income, the net impact is about three times lower. If we assume that the system leads to full transfer of benefit to the workers, then the total fiscal effect, taking into account all probable indirect and dynamic changes in the economy, would be some positive BGN 30.4 million. Compared to the baseline scenario, this represents roughly 60% increase of the revenue to the national budget.

If the lost revenue in the borderline scenario is divided by the number of months in the year and the number of beneficiaries, the result would be BGN 6.57 for the national budget per food voucher user. This is more than three times lower than the most popular estimate of the monthly cross-subsidy for the vouchers (generally estimated at BGN 21). Probably, the most realistic value for the subsidy is BGN 2.23 a month, i.e. nine times lower than the initial assumption.

The effects of a possible marginal increase of the total quota by additional BGN 10 million (i.e. by about 1/10 of the current volume), while preserving the monthly food voucher limit of BGN 60 per worker, at most pessimistic assumptions, seem relatively modest. Based on this estimate, the lost revenues would vary between BGN 826 thousand and BGN 1.095 thousand. This does not take into account the dynamic impact of revenue and wages, which would be reported and taxed.

In Terms of Comparison with Other Social Policies

Food vouchers are a more reliable way to conduct social policy and report its effect than such policies as subsidies (tax breaks) for farmers and other groups of producers, maintaining employment programmes, and minimum wage increases.

Appendix 1: Applicable Tax Conditions

Table: Payroll Tax Rates for the National Budget on the Three Options for Cost of Labour Distribution by Employers

Payroll taxes	Employee	Employer
Wages	9.90%	14.00%
Benefits	8.10%	10.90%
Vouchers	0.00%	0.00%

Table: Total Payroll Tax Rates on the Three Options for Cost of Labour Distribution by Employer

Payroll taxes	Employee	Employer
Wages	12.10%	16.80%
Benefits	10.30%	13.70%
Vouchers	0.00%	0.00%

Table: Tax Rates Relevant for the Assessment

Tax	Rate
Corporate income tax	10%
Personal income tax	10%
Tax on benefits	10%
Value added tax	20%

Appendix 2: Characteristics of the Voucher Systems in Some Countries

Bulgarian system can and should be compared to the ones in other EU countries, with approximately the same population and workforce characteristics for 2009.

Austria has a population of 8.3 million, 3.6 million in working age; minimum wage of 1,000 euros and roughly 1/3 of the population covered by the food voucher system. The reasons for the small coverage should be sought in the diversity of other policies and the high minimum wage. Similar is the scope of the system in the UK.

The Czech Republic has a population of 10.6 million, with 4.7 million in working age. Of these, roughly 21% are covered by the food voucher system; the minimum monthly wage is 237 euros, and the average is 594. Approximately the same percentage of the workforce uses voucher-issuer services in **Romania**. Another country, having this indicator close to that in the Czech Republic and Romania, is **Luxembourg** (16%).

Hungary is close to the Czech Republic in terms of population – 10 million, 41% of them in working age. 80% of the working population is covered by the system. The minimum monthly wage is 277 euros, and the average is 751.

Slovakia has a population of 5.2 million, slightly more than half of them in working age. The voucher system covers 9.1% of the workforce, the minimum monthly wage is 295.5 euros, while the average is 750.

Appendix 3: Additional data

Table . GVA, GDP, End Consumer Spending and Gross Capital Formation (2000-2009)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
GVA (BGN million)	23,697	26,356	28,107	29,604	32,437	35,220	40,350	46,401	54,851	55,502
GVA (Real growth, %)	5.0	3.9	5.4	4.2	4.8	5.3	6.6	6.3	6.1	-3.8
GDP (BGN million)	26,753	29,709	32,402	34,628	38,823	42,797	49,361	56,520	66,728	66,256
GDP (Real growth, %)	5.4	4.1	4.5	5.0	6.6	6.3	6.3	6.2	6.0	-5.0
End consumption (BGN million)	23,291	25,818	28,894	30,922	34,070	37,742	42,964	48,209	56,343	54,033
Gross capital formation (BGN million)	4,894	6,141	6,405	7,511	8,976	11,971	15,667	20,798	25,586	17,348

Source: BNB