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## Can a Flat Rate Tax Contribute to Growth and Welfare

### Summary

*The paper deals with three empirical aspects of the triple flat rate tax, which is the most notorious and controversial feature of the projected tax reform in Slovenia. The findings of the analysis are straightforward.*

*Firstly, there is no pressing need for a radical reform of the economic system. Indeed, replacing gradualism with a “new*

*paradigm of development” rooted in neo-liberalism and supply-side economics might adversely affect the economic performance and social cohesion of the country.*

*Secondly, there is no empirical evidence supporting the argument that changes in the tax system which would increase the share of profits would in turn guarantee a higher expenditure for R&D.*

*There is also no guarantee that an increase in expenditure on R&D would actually increase growth and employment.*

*Thirdly, there is no evidence that a flat rate income tax would favorably affect the labor market and narrow the existing overall and structural gap between labor supply and labor demand.*

### 1. Introduction

A triple equal flat rate – for VAT, personal income tax, and profit tax - is the most notorious and controversial feature of the tax reform, which is the pillar of the Reform Proposal<sup>1</sup>. Indeed, without the tax reform the rest of the reform package comprising of 70 “actions” can barely be called reform at all. These “actions” consist of empty talks on “competitiveness”, “knowledge based society”, and similar claptraps; they also include some useful as well as some less-than-useful simplifications and corrections of the existing economic system, and the creation of new institutions.

It is impossible to reasonably justify a triple equal flat tax rate<sup>2</sup>, as tax bases differ and so do the effects of taxation. A single rate profit tax is as common as is progressive personal income tax. A single

rate of VAT could also be sensible had it been introduced in 1999 when VAT replaced the sales tax though there are two major objections to abolishing the lower rate – unfavorable redistribution and tax competition. It would adversely affect poorer people and some sectors of the economy. Bole (2005a)<sup>3</sup> thus suggests that any changes in the tax system should deal with tax competition and tax evasion possibilities which increased significantly after the loss of sovereignty over the exchange rate policy in 2004 and will further increase when Slovenia joins euro zone and after new directives on taxing services will be passed by the EU.

Finally, flat rate income tax belongs to the beginning of the 19th century<sup>4</sup>; by the second half of 19th century, the progressive personal income tax had become commonplace and remained (with graduated rates) a standard in all “normal” market

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<sup>1</sup> The discussion is based on the version of the Reform Proposal of October 25th 2005 (Odbor za reforme: Usmeritve ekonomskih in socialnih reform za povečanje gospodarske rasti in zaposlenosti).

<sup>2</sup> If one adopts a life-cycle perspective, the difference between a wage tax and a consumption tax amounts to one of timing in tax collections rather than economic substance. In such a context, flat tax proposal encompasses a wage tax on individuals and a cash flow tax on corporations at the same rate, resulting in an economy-wide single-rate tax on consumption (Zee, 2005,36-37)

<sup>3</sup> Fierce opposition against the abolition of the lower rate in VAT appears to make discussions on it irrelevant.

<sup>4</sup> In the beginning of the 19<sup>th</sup> century, most taxes (obča užitnina, hišnina, desetina) in the regions of nowadays Slovenia had flat rates. The first progressive income tax “pridobnina” with the rates between 2.5 and 20 percent was introduced in 1829.

economies. Indeed, it did not exist in former communist countries in which everybody was considered equal, which might add to explaining why some former communist countries introduced the flat rate tax and others are seriously considering its implementation.

The idea of progressive income tax is consistent with the vertical equity principle (unequal tax treatment of un-equals), the ability to-pay principle (decreasing marginal utility of money), and it is also in accordance with the benefit principle (assuming that most pure public goods benefit rich people more than they benefit poor people). What, however, is the appropriate degree of progressiveness is a matter of society-specific value judgments. This is manifested in enormous differences in rates, exemption thresholds, income classes, allowances and so forth even among the countries that are at the same level of development.

Initially, the reformers claimed that by adopting the triple equal flat rate tax everybody would be better off; only afterwards did they admit that a flat rate on VAT and personal incomes redistributes wealth, which they would »correct« administratively and by new social transfers. This would make the existing fiscal system even more cumbersome, which is contrary to one of their proclaimed and reasonable goals; to simplify the system. The complexity of the tax systems is namely not caused by multiple tax rates, it is caused by tax bases, exemptions, allowances and so on.

This paper deals with three practical aspects, firstly exploring whether the reform of the economic system, which would go beyond normal adaptation and correction is as pressing as claimed. Secondly, the alleged links between the tax reform, expendi-

ture for R&D, growth, and welfare, which rely on the premises of the supply side economics, are examined. Thirdly, the paper deals with the soundness of the proposition according to which a flat rate income tax would have favorable effects on the labor market.

## 2. How Pressing is Reform?

The proposed Reform was introduced to carry out the Strategy for Development, a national counterpart of the renewed Lisbon Strategy<sup>5</sup>. In addition, the Reform should put an end to gradualism, which has dominated the transition and development of Slovenia since its independence, and should replace it with a “new paradigm of development” rooted in neo-liberalism and supply side economics.

The most often utilized argument for the Reform, which is accepted also by those who object to most of its content is its urgency. While admitting that Slovenia has been very successful with high and most stable levels of growth accompanied by internal and external balance, low unemployment rate, and decreasing inflation (See Table 1), reformers assert that such development is not sustainable due to the slow restructuring process and bad development policy (Odbor za reforme, p 14).

The hypothesis of slow restructuring<sup>6</sup> can be tested indirectly by comparing structural indicators in Slovenia with corresponding indicators using a benchmark country or benchmark countries<sup>7</sup>. Five benchmark countries are often referred to by reformers: Denmark, Finland, Ireland, Estonia, and Slovakia.

<sup>5</sup> According to the Lisbon strategy, signed in March 2000, Europe should by 2010 become the most efficient knowledge based society, which could compete in the globalization contest. After some years of mantras and the report of the Wim Kok committee at the end of 2004 EU, it became clear not only that EU is far from the goals for 2010, but also heading in the opposite direction. Despite contrary assertions of EU representatives (Peter Mandelson: **Strengthening the Lisbon Strategy: the Contribution of External Trade to the Growth and Competitiveness in Europe**, Stockholm, February 15, 2005; Janez Potočnik: **The Future of EU Research - chances for the new Member States**, Warsaw, February 4, 2005; Neelie Kroes: **Building a Competitive Europe - Competition Policy and Relaunch of the Lisbon Strategy**, Milan, February 7, 2005) European Commission admitted that the strategy failed. The old strategy was therefore in February 2005 replaced by “**Partnership for Growth and Jobs - New Beginning of the Lisbon Strategy**”. The ending year 2010 was abandoned, number of goals was reduced, and responsibilities were turned to the governments of member states. It should be based on the partnership between the Commission and member states, which should create their own “National Lisbon” and become responsible for efficiency, increase of productivity, and employment. The sum of “National Lisbon” should result in common “EU Lisbon”. Though the new strategy was said to be simple, pragmatic, and tangible. (Communication to the Spring European Council, **Working together for Growth and Jobs**, A new start for the Lisbon Strategy, COM (2005) 24, Brussels, 02.02.2005), it easily competes with numerous declarations in former socialist countries. In short, if economic growth depended on rhetoric, it would be high. Because it does not, it is most likely that the new Lisbon strategy will soon turn into a worthless political document.

<sup>6</sup> Indeed, the deliberations about proper structure of an economy, or about what should be exported and what should be imported, belong to the socialist past, while the deliberations about proper social structure are a matter of value judgments.

<sup>7</sup> All indicators used here are those of Eurostat. Cautiousness is, nevertheless, appropriate. First, one can choose indicators supporting his views and neglect those opposing them. Second, it is almost impossible to find a benchmark model, which would last for more than a decade. Thirdly, there are country specific features, which cannot be repeated elsewhere.

**Table 1: General Economic Indicators, 2004**

	GDP growth in %	Average inflation in %	Current account balance, % GDP	General budget balance % GDP	Unempl. rate %	FDI inflows % GDP	GDP per capita PPS*
Czech R.	4.4	2.8	-6.1	-3.0	8.3	3.7	70
Estonia	7.8	5.0	-13.2	1.7	9.2	6.0	51
Hungary	4.2	5.5	-9.0	-5.4	6.0	3.7	61
Latvia	8.3	7.3	-8.2	-0.9	9.8	4.0	43
Lithuania	7.0	2.8	-6.9	-1.4	10.9	2.9	48
Poland	4.4	4.4	-2.0	-3.9	18.8	2.2	47
Slovakia	5.5	6.0	-0.9	-3.1	18.2	3.1	52
<b>Slovenia</b>	<b>4.2</b>	<b>3.2</b>	<b>-0.4</b>	<b>-2.1</b>	<b>6.0</b>	<b>0.1</b>	<b>79</b>
EU-15	1.9	2.1	0.4	-2.6	8.1	-0.1	109

\*EU25=100

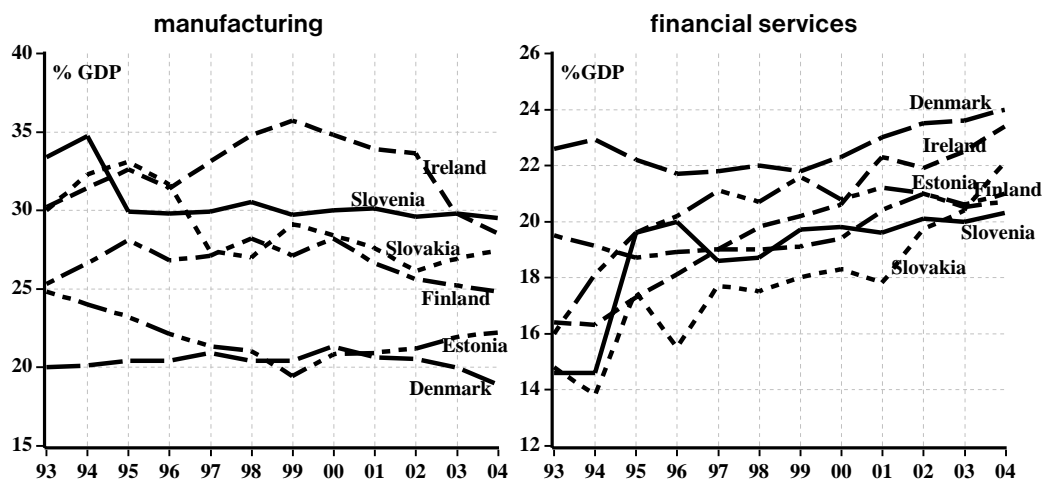
Source: Eurostat, online support.

A high share of labor intensive manufacturing in GDP and a low share of financial services in GDP are proposed as evidence of slow restructuring (Odbor za reforme, 15). However, in the observed period between 1993 and 2004, the share of manufacturing in GDP in all the benchmark countries, though at different levels, remained rather stable. In Slovenia, after a drop at the beginning of the period, the share level stabilized at the level of 30 percent, thus, at the level of Ireland. It is considerably higher than in Denmark and Estonia and it does not differ significantly from the share level in Finland and Slovakia. The reasons for the high share of manufacturing in Slovenia can most likely be found in the relative strength of the sector before transition, privatization model, and constant support by (the non stabilization anchor role of) the exchange rate policy.

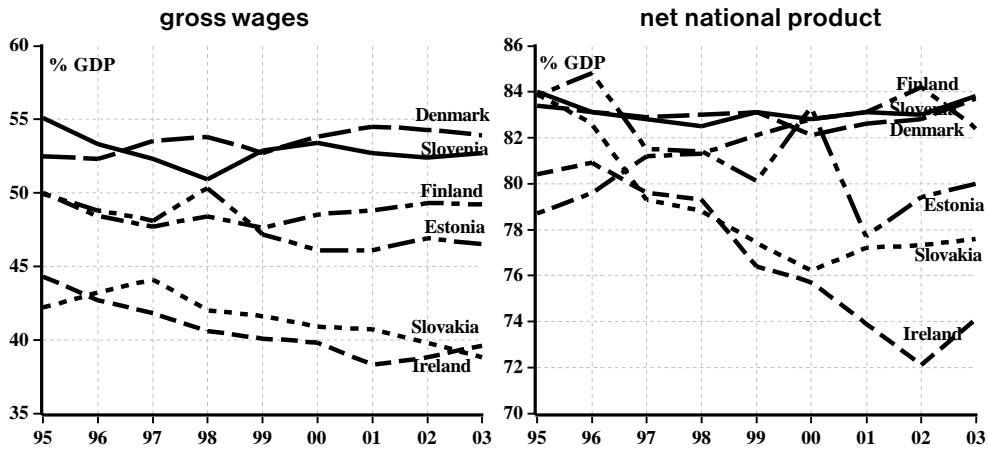
The share of financial services in GDP is claimed to be too low. Again, it does not differ considerably from the corresponding share levels in the benchmark countries, while its expansion resembles the patterns observed in other new EU member countries. A notable difference between Slovenia and the others is its ownership structure. While in Slovenia a relatively high share of the financial sector remained domestically owned, in other former socialist countries the entire financial sector was sold off to foreigners.

An overly high share of gross wages in GDP is one of the justifications for the reforms. However, with an initial decline from 60 percent to a rather stable share of 53 percent after 2000, Slovenia resembles Denmark and Finland while the share level is lower and decreasing in Ireland, Slovakia,

**Graph 1: The Shares of Manufacturing and Financial Services in GDP**



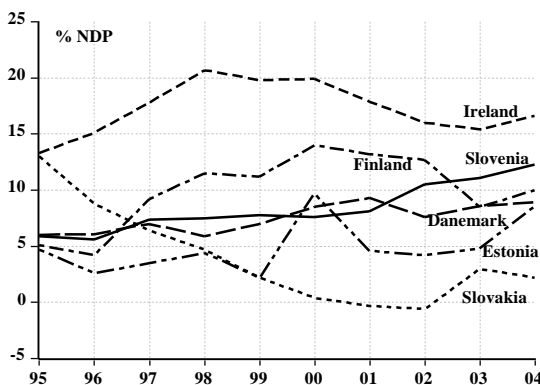
**Graph 2: The Shares of Gross Wages and Net National Product in GDP**



and Estonia<sup>8</sup>. The share of net national product in GDP<sup>9</sup> in Slovenia has been with 83 percent on a par with Denmark and, after 2000, that of Finland. The share level is much lower and decreasing in Ireland, Slovakia, and Estonia. The explanation for the difference can most likely be found in the different shares of inward FDI<sup>10</sup>

In looking at the share of net savings in the disposable net national product Slovenia again resembles Denmark and Finland but lags behind Ireland. The share of net savings is much higher

**Graph 3: Net National Savings in Net Disposable Product**



than in Slovakia and Estonia. Steady growth in the share level indicates that Slovenia can enhance productive assets without relying on foreign capital.

Innovativeness can be measured by the number of patent applications to the EPO (European Patent Office) per million inhabitants. Slovenia lags considerably behind three old EU member countries but it is well ahead of new EU member countries and certain old EU members at a similar level of development. The figures<sup>11</sup> are the following: Slovenia 52, Denmark 217, Finland 307, Ireland 80, Estonia 7, and Slovakia 8. The values of the lifelong learning indicator<sup>12</sup> which is in The Lisbon Strategy considered an important indicator for potential development are: Denmark 27.6, Finland 24.6, Slovenia 17.9, Ireland 7.2, Estonia 6.7, and Slovakia 4.6.

Various equality or inequality coefficients serve for measuring social cohesion. The two most often used are the income quintile share ratio and risk of poverty rate. The latest values of the income quintile share ratio are 3.0 in Slovenia, 3.6 in Denmark and Finland, 5.1 in Ireland, 5.4 in Slovakia, and 5.9 in Estonia while the values of the risk of poverty rates after social transfers are 10 in Slovenia, 11 in Finland and Denmark, 18 in Estonia, and 21 in Ireland and Slovakia.

<sup>8</sup> The assertions that low share of wages and corresponding high shares of profits assure economic growth again belong to the beliefs of 19<sup>th</sup> century classical and Marxian economics, by which workers consume their wages while capitalists invest their profits.

<sup>9</sup> Net national product (NNP) is most likely a better indicator of welfare than gross domestic product (BDP).

<sup>10</sup> This casts some doubts in the creed of only positive spillover effects of inward FDI for the welfare of the inhabitants (Mencinger, 2003).

<sup>11</sup> Source: Eurostat: The data are for 2002, as data for more recent periods are provisional.

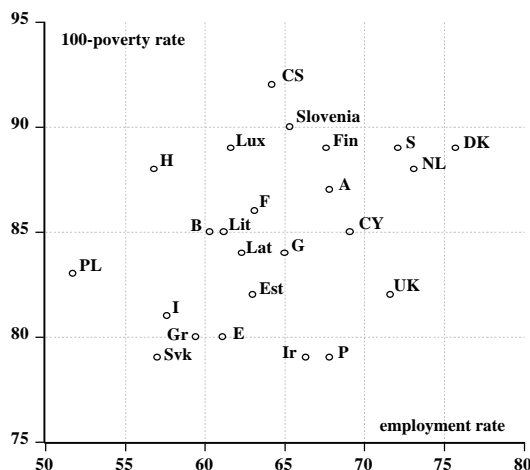
<sup>12</sup> Life-long learning refers to persons aged between 25 and 64 who received education and training in the four weeks preceding the survey among the total population in the same age group.

The data on economic development and structural indicators certainly weaken the claims that restructuring in Slovenia has been slow. Furthermore, they indicate that the existing economic and social structure of Slovenia more closely resembles the corresponding structures in the Scandinavian countries with an above average employment rate and an above over average social cohesion (which is on Graph 4 shown as the difference: 100 - risk of poverty rate) rather than the structures found in other new and old EU member countries. One might therefore doubt whether the replacement of gradualism with the new paradigm of development is really as urgent as claimed. Indeed, the Reform might not only end the era of gradualism but also endanger favorable economic situation and existing social cohesion of the country; the latter being one of the preconditions for economic development.

can only marginally affect long run growth. Economists have long recognized that fiscal policy may affect economic growth (Tanzi, 1997) and there has been a broad support for the hypothesis that the high income taxes and size of government are detrimental for growth. Some recent theoretical and empirical studies have however supported even the opposite hypothesis. In short, one could say, at least, that many issues on the relationship between the size of the government and economic growth remain ambiguous (Rivas, L.A. 2003)<sup>13</sup>. Furthermore, there are convincing opinions that in a democratic and financially developed country long run growth cannot be attained by increasing inequality (Rasmussen, P.N. 2005)<sup>14</sup> or by reduction of public spending (Wolf, 2005).<sup>15</sup>

### 3. How Reliable Are the Links Between Tax Reform and Welfare?

Graph 4: Employment Rate and Social Cohesion



The major feature of the Reform, of the Strategy for Development, and of the Lisbon Strategy is the reliance on the supply side, which implies the production function<sup>16</sup> being their “scientific” pillar. Though the production function can have many different forms, its essence is causality - output being the dependent variable while labor, capital, and technological change are independent variables. Implied causality is certainly most relevant for the determination of potential output; it is, however, not very relevant for the determination of actual output in an economy in which companies are much more concerned with how to sell the products they produce rather than with how to produce them. Nevertheless, aggregate demand is totally neglected by the Reform, which seems to be, together with the assumed perfect adaptation of economic subjects, the Achilles’ heel of the Reform and of both strategies. Indeed, one can argue that increased production will decrease the costs per unit of production, so that prices will fall, which will increase demand, and also, that increased supply in itself creates demand for

The belief that tax restructuring will spur “competitiveness” is not supported by empirical data. According to Bole (2005b), most empirical studies show that tax restructuring without tax reduction (not replaced by an increase of deficit)

<sup>13</sup> Indeed, without observing the composition of government spending the claim that taxes and large size of government are detrimental to growth is an ideological statement.

<sup>14</sup> »Our high international ranking is due to virtuous circles where various factors reinforce each other. These include budget surpluses, transparency and honesty in public management, and high investment in education, public health and state-of-the-art infrastructure. Contrary to what the other Mr. Rasmussen believes, there is no evidence that high taxes are adversely affecting the ability to compete effectively in world markets, or to deliver extremely high living standards. .... In short, cutting income tax would do nothing to boost Denmark’s already high competitiveness, whereas cuts in welfare would harm Denmark’s competitiveness. (»Reforms« that will harm Denmark’s competitiveness», **Financial Times**, November 29, 2005)

<sup>15</sup> »What is then of the idea that higher spending (and so taxes) must also spell a lack of competitiveness? The short answer is that it is nonsense for the reasons elaborated in my book, *Why Globalization Works* (Yale University Press, 2004)« »More public spending does not lead to slower growth, **Financial Times**, March 23, 2005)

<sup>16</sup> If it has a Cobb-Douglas form  $Y = A \cdot K^a \cdot L^b$ , it simply says that one must work (L) and have machinery (K) to produce (Y) with a and b indicating how changes in K and L affect Y. Growth, which cannot be explained by the increases of K and L is attributed to technological change or total factor productivity, embodied in A.

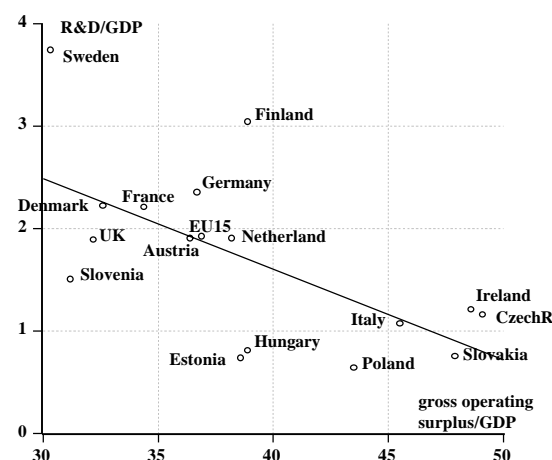
other goods and services. This is true in a “frictionless and timeless” world but far less true in reality.

Technological change, or total factor productivity, is generally acknowledged to be the driving force behind long run growth and welfare, while shallowness of the capital market and inflexibility of the labor market are believed to be their major impediments. Let us disregard the issue of aggregate demand and focus only on the links between flat rate income tax and welfare. The reformers claim that the reduction in labor costs, which will be achieved by the abolition of the tax on wage bill<sup>17</sup> and by the introduction of a flat rate income tax, will increase profits, which in turn will be used for further expenditure in R&D, investments and increased employment. Let us also disregard that the difference between existing tax burden and tax burden with a flat rate income tax is marginal compared to the burden reduced by the abolition of the tax on wage bill, and consider the validity of the assertions that a reduction in the tax burden will increase expenditure in R&D and that the latter will increase output, employment, and welfare.

Firstly, what guarantees that employers benefiting from reduced labor costs and flexible firing laws will use the accrued profits for expenditure in R&D, and not for increasing their own personal incomes, the dividends of owners and often unreasonable mergers and acquisitions? The data do not confirm that an increase in the share of profits in GDP will increase expenditure in R&D. Time series for 16 EU countries for the period 1993-2004 do not indicate that there exists a positive relationship between the share of gross operating surplus and expenditures for R&D. Indeed, negative relationship prevailed in majority of countries. A negative relationship between the share of gross operating surplus and average expenditures for R&D in most of EU countries (time series) or a negative relationship between the averages across countries certainly do not imply that increasing the share of gross operating surplus would lessen expenditures for R&D<sup>18</sup>.

They only suggest that one should be rather cautious before accepting the assertions that redistribution in favor of employers will automatically increase expenditures for R&D.

**Graph 5: Gross Operating Surplus and Expenditures for R&D 1993-2004 Averages**



Secondly, even if accrued profits were used for expenditure in R&D, this does not automatically ensure growth and job creation. For example, in the observed period, Ireland attained by far the fastest average growth in the EU, while its expenditure in R&D was among the lowest, slightly more than 1 percent of GDP, and decreasing. The EU and two countries with rapidly increasing expenditure in R&D, Denmark and Finland attained rather modest and declining growth. Again, a negative relationship can certainly not be considered a proposition that expenditures in R&D hinder economic growth; it only indicates that they do not ensure it.

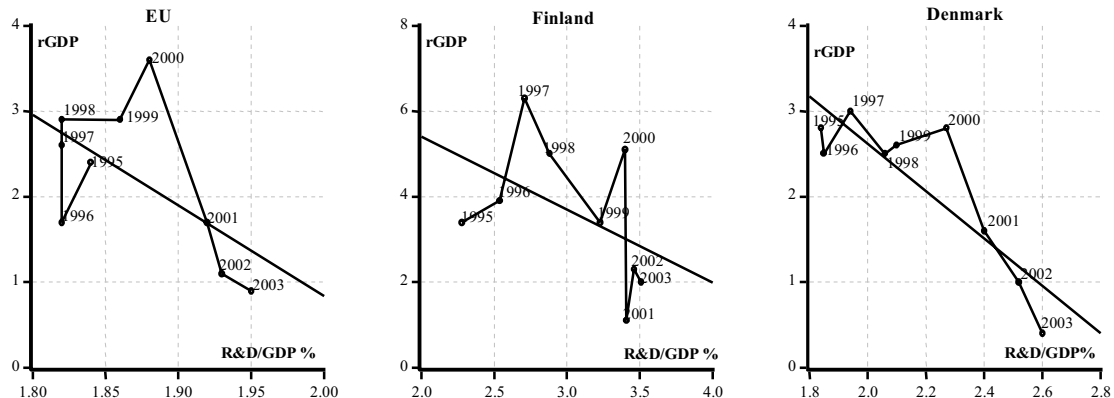
Finally, technological change undoubtedly increases productivity and leads to better jobs; it, however, at least directly, does not create more jobs<sup>19</sup>. Indeed, technological change is in most cases labor-saving and new jobs created by it in an industry where change is taking place, are most likely fewer in number than the jobs which are eliminated. Only some workers who lose their jobs can find new jobs in the same industry or in other related industries producing material goods with a higher value added. Some of them move to the service sectors with the same, higher or lower value added jobs, while some of them move to an activity with zero value added jobs, i.e. unemployment. Technological changes however indirectly enable the creation of new jobs in services, the public or private sector, with the same, higher (public

<sup>17</sup> The tax on wage bill was introduced in 1996 in order to reduce the flat rate contributions to health fund and to ease the tax burden of labor intensive industries with low wages while progressively taxing high wage industries. The abolition of this tax would decrease the existing progressiveness substantially.

<sup>18</sup> The experience of the author is that his doubts in conventional truths are often considered as the confirmative statements.

<sup>19</sup> There is a very old debate, going back to Ricardo, whether technical change and productivity growth has neutral, negative or positive impacts upon employment.

**Graph 6: Expenditures for R&D and Economic Growth 1995-2003**



servants, lawyers, etc.) or lower (waitresses, garbage collectors etc.) value added. This does not imply that R&D hinders job creation; it only warns that R&D, which increases output and the standard of living, does not inevitably create new jobs and reduce unemployment<sup>20</sup>. The overall outcome is a result of different effects, some reducing, others increasing employment<sup>21</sup>.

In short, the assertions that a flat rate income tax will increase expenditure in R&D and that this will increase growth and employment are very close to religious beliefs.

#### 4. Flat Rate Income Tax and the Labor Market

One of the major goals of the flat rate income tax is supposed to be a reduction of labor costs for skilled and educated workers, which would become increasingly attractive for companies along with their innovativeness and capability for producing technologically advanced goods (Odbor, 11).

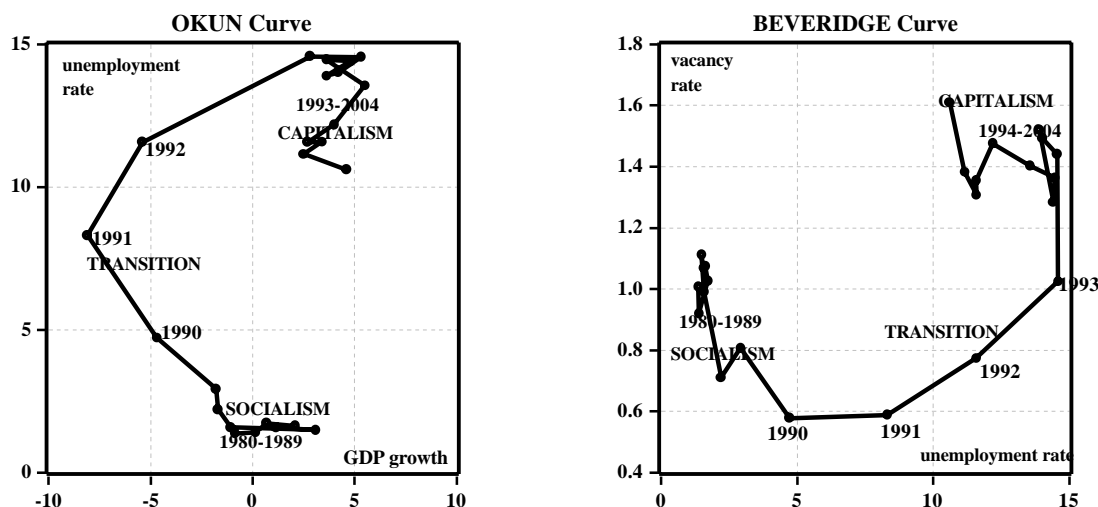
Let us first observe the supply side of the proposition. At least in theory, changes in personal income tax

would affect the work incentive of the income recipients. If jobs are available, the decision to work more or less depends on the wage elasticity of the labor supply. Most empirical studies have shown that the wage elasticity of the labor supply is extremely low (Zee, 2005) because it is a result of two conflicting effects: substitution effect and income effect, which may cancel each other out. Namely, if taxes were lowered and incomes increased, one would be willing to work more and substitute leisure by work (substitution effect) while at the same time feeling richer and therefore willing to work less (income effect). It is impossible to say which effect would prevail at different levels of income, but it is reasonable to assume that income effect might prevail at higher rather than lower levels of income. Indeed, the discussion is not very relevant because the reality is shaped by labor market regulations and persistent unemployment. It is also unclear whether the reformers even considered the adaptation on the supply side, at all. In fact, while they proclaim that their objective is to benefit the higher income groups (implying that the substitution effect prevails over income effect), they would administratively "correct" the effects of the flat rate income tax by keeping net salaries unchanged. This, indeed, is one of the many strange and unrealistic propositions of the reform package, which would

<sup>20</sup> Namely, average R&D expenditures in Finland in the 1993-2004 period were 3.04 percent of GDP, they were 2.22 percent in Denmark and 1.50 percent in Slovenia while standardized unemployment rates in 2003 were 9 percent in Finland, 5.6 percent in Denmark, and 6.5 percent in Slovenia. Though the data on age structures of unemployed are not fully comparable, they however indicate that high expenditures for R&D are not enough to favorably affect age structure of unemployment. In Finland, unemployment in the age group 15-24 increased from 8.9 in 1990 to 21.6 percent in 2003, in the age group 25-54 from 2.1 to 7.3 percent, and the age group 55-64 from 2.7 to 7.7 percent. In Denmark, unemployment rate in the age group 15-24 decreased from 11.5 to 9.8 percent, in the age group 25-54 from 7.9 to 5 percent, and in the age group 55-64 from 6.1 to 3.9. In 2002, in Slovenia the unemployment rate in the age group 15-24 was 15 percent, in the age group 25-49 it was 5.2 percent and in the age group over 50 years 3.6 percent (CESifo DICE).

<sup>21</sup> In the last decade, practically all new jobs in EU-25 were created in services. In the period 1997-2005, 13 millions jobs were created in EU-25, 16 millions jobs were created in services; 2 millions jobs were lost in industry, and 1 million jobs were lost in agriculture. The share of employment in services therefore increased from 66 to 69.7 while the shares of employed in industry lessened from 28.0 to 25.2, and agriculture from 6.0 to 5.1 percent.

Graph 7: Shifts of the Okun's and Beveridge's Curves



bring about a great deal of confusion if actually implemented.

On the demand side, it can be assumed that companies balance the benefits of having good workers with their costs, and that they adapt the skill structure of workers to their product structure. Indeed, an engineer could more than likely successfully manage the job of an unskilled worker. However, it is highly unlikely that a company would hire an engineer for the job, which can be managed by an unskilled worker. Only changes in the product demand and adjustments of production

structure to them can lead to changes in labor demand and not vice-versa.

The improvement in the labor market by a change in relative wages implies that the labor supply structure can easily adapt to the labor demand structure. This would immediately imply that most of the existent unemployment is structural rather than cyclical. However, the shifts in the position of the Okun curve show that the "equilibrium" unemployment rate in Slovenia shifted from a very low level, which was in accordance with the "socialist social contract" (a combination of self-

Table 2: The Skill Structure by Economic Activities

Skill sector	PhD Ms/Ma	university	non-univ.	second. school	highly skilled	skilled	semi-skilled	unskilled
A-C	0.20	6.80	6.71	22.60	0.68	40.50	7.76	15.58
D	0.21	7.11	5.34	20.43	0.90	35.06	11.24	19.48
E	0.21	12.74	8.27	29.39	3.11	33.70	3.73	8.27
F	0.04	4.49	5.21	19.00	2.47	39.21	5.55	23.59
G	0.15	8.00	6.93	33.59	1.44	43.11	0.95	5.57
H	0.06	4.46	4.30	24.16	0.61	43.85	5.91	16.37
I	0.15	7.49	7.76	38.44	2.42	36.51	2.08	4.65
J	0.69	23.03	15.00	56.72	0.10	3.08	0.18	0.63
K	2.09	23.84	10.14	30.89	0.25	15.40	2.04	15.00
L	1.17	30.18	12.75	46.79	0.24	5.72	0.39	1.98
M	6.05	54.98	5.26	19.08	0.19	7.15	1.18	6.76
N	1.32	20.10	12.84	40.22	0.21	10.61	5.38	8.73
O	0.57	21.64	10.05	34.78	0.53	19.62	2.73	9.03
Average	0.93	16.16	7.63	29.08	0.93	27.42	5.24	12.25

A-C - agriculture, mining; D - manufacturing, E - electricity, gas and water supply, F - construction, G - trade, H - hotels and restaurants, I - transport, storage and communications, J - financial intermediation, K - real estate, renting, L - public administration, M - education, N - health and social work, O - other services.



management and soft budget constraint) to a new much higher level consistent with a "neo-European social contract". While the former was characterized by low elasticity of employment to economic activity and high asymmetry between hiring and firing (in favor of hiring), the latter is characterized by an increased elasticity and reversed asymmetry (Mencinger, 2000).<sup>22</sup>

The shifts of the Beveridge curve depicting the relationship between the unemployment rate and vacancy rate show that only a small proportion of unemployment can be attributed to structural differences between labor supply and labor demand.

This is indirectly confirmed by recent growth of unemployment among persons with university education and also by the difference between formal and necessary level of education. At the end of 2004, the ratios between professional attainments (formal education) and professional skills (necessary level of education) were: 1.35 (3842:2845) for PhD level, 2.06 (6902:3336) for M.Sc./M.A.level, 0.86 (92533:106570) for university education, 0.96 (48393:50221) for non-university degree, 1.03 (190804:185077) for secondary education, 0.91 (5658:6186) for highly skilled workers, 1.099 (179796:180836) for skilled workers, 0.51 (17798:34556) for semi-skilled, and 2.134 (108010:80803) for unskilled workers. According to these ratios, the largest discrepancies are in three labor sub-markets: for top education, semi-skilled and unskilled workers. A large excess supply exists in the top formal education level and among unskilled workers. Excess demand for university degree workers is partly covered by workers of top formal education, while unskilled workers are managing jobs of semi-skilled workers. One might therefore doubt that changes in relative wages would be of any significance for improving the functioning of the labor market. Table 2 indicates that the skill structure is mainly activity specific.

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<sup>22</sup> Different theories which might be divided into two sets (hysteresis and structural explanations) might explain high and persistent unemployment in Slovenia and the EU. The »insider-outsider« hypothesis stressing the inequality of outsiders, the high-unemployment benefits hypothesis emphasizing labor market inflexibility, or the capital-shortage hypothesis stressing the absence of job-creating investments are not mutually exclusive.