



International Center for Economic Growth  
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# **NEWS OF THE MONTH**

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## INFORMATION SOCIETY IN THE V4 COUNTRIES

Information society and the use of ICT is inevitable for the European Union to become more competitive and reach the objective of the Lisbon Strategy. Broadband penetration rate significantly increased over the last year in the V4 countries (Czech Republic, Hungary, Poland and Slovakia) simultaneously with other indicators, which could help these countries to catch up with their more developed competitors. Although new member states have recently extended ICT penetration and use there still exists digital divides between old and new members and also within the member states.

### ICT IN HOUSEHOLDS

Telecom infrastructure in households is well developed in the V4 countries. The number of mobile telephone lines per 100 individuals reached or even exceeded 60 lines in 2004 with a maximum in the Czech Republic (106). This number increased dynamically by at least 8 percentage points (by 14 percentage points in Poland) compared to 2003. Parallel, the number of fixed telephone lines is decreasing or stagnating.

The number of PCs in households per 100 individuals increased at a slower pace, as the change of 5.5 up to 15 percentage points went off during three years, between 2001 and 2004. Since the price of a PC is much higher than that of a mobile phone, it is not surprising that the poorer V4 countries are lagging behind old member states concerning this indicator. Only two old members (Greece and Portugal) had less PCs (9 and 13.9) in 2004 and except for Spain (26.6) the number of PCs was above 30 in each old member state with a maximum of 76.1 in Sweden.

**Table 1. ICT penetration and regular use in households**

	2003				2004			
	CZ	HU	PL	SK	CZ	HU	PL	SK
<b>Fixed telephone lines (per 100 people)</b>	36	34.9	31.9	24.1	33.7	36.4	31.9	23.1
<b>Mobile telephone lines (per 100 people)</b>	95	78	46	68	106	86	60	79
<b>Number of PCs in households per 100 people)*</b>	14.7	9.5	8.5	14.9	24	15	19.1	29.5

	2004				2005			
	CZ	HU	PL	SK	CZ	HU	PL	SK
<b>Internet access at home (%)</b>	19	14	26	23	19	22	30	23
<b>Broadband access at home (%)</b>	4	6	8	4	5	11	16	7
<b>Individuals regularly using the internet (%)</b>	25	21	22	40	26	34	29	43

Source: Eurostat

\*data for 2001 and 2004

The proportion of households or individuals having Internet access at home showed different trends in the last two years in the V4 countries. While Hungary exceeded the growth of the EU-25 (from 43% to 48% between 2004 and 2005) and Poland almost reached it, the Czech Republic and Slovakia faced stagnation concerning Internet access at home. The situation is similar concerning broadband access. Hungary and Poland approximated or reached the growth of the EU-25 average (from 15% to 23%), but the Czech Republic and Slovakia showed only slight increase in the broadband penetration rate.

The digital divide between old and new member states exist also in case of the proportion of regular Internet users. The only exception is Slovakia reaching the EU-25 average (38% in 2004 and 43% in 2005). The use of the Internet (see *Table 2.*) is similar to the EU-25 average in the V4 countries.

**Table 2. Use of Internet in 2005**

	CZ	HU	PL	SK	EU-25
<b>Communication* (%)</b>	27	34	30	44	44
<b>Financial services (%)</b>	5	6	6	10	19
<b>Training and education (%)</b>	2	15	5	8	16
<b>Purchasing goods and services (%)</b>	3	5	5	6	17
<b>Seeking health information (%)</b>	3	10	7	9	16
<b>Interacting with public authorities</b>	5	18	13	27	22
<i>obtaining information</i>	3.3	15.1	10.7	23.7	20.7
<i>obtaining forms</i>	2.4	12.3	5.7	13.5	11.3
<i>returning filled in forms</i>	1.4	7.3	2.6	6.5	5.5

\* among internet users

Source: Eurostat

Most of the internet users use it for communication in the European Union. The proportion of individuals using the Internet for other purposes in the V4 countries is lower compared to the EU-25 average. Online financial services, purchasing or online courses are less characteristic in these member states mainly because of the lower ICT penetration. The use of e-Government is also lagging behind old members except for Slovakia achieving between 1 and 3 percentage points better than the average of the EU-25.

### ICT IN ENTERPRISES

The digital divide seems to be smaller in case of enterprises.

**Table 3. ICT penetration and use in enterprises**

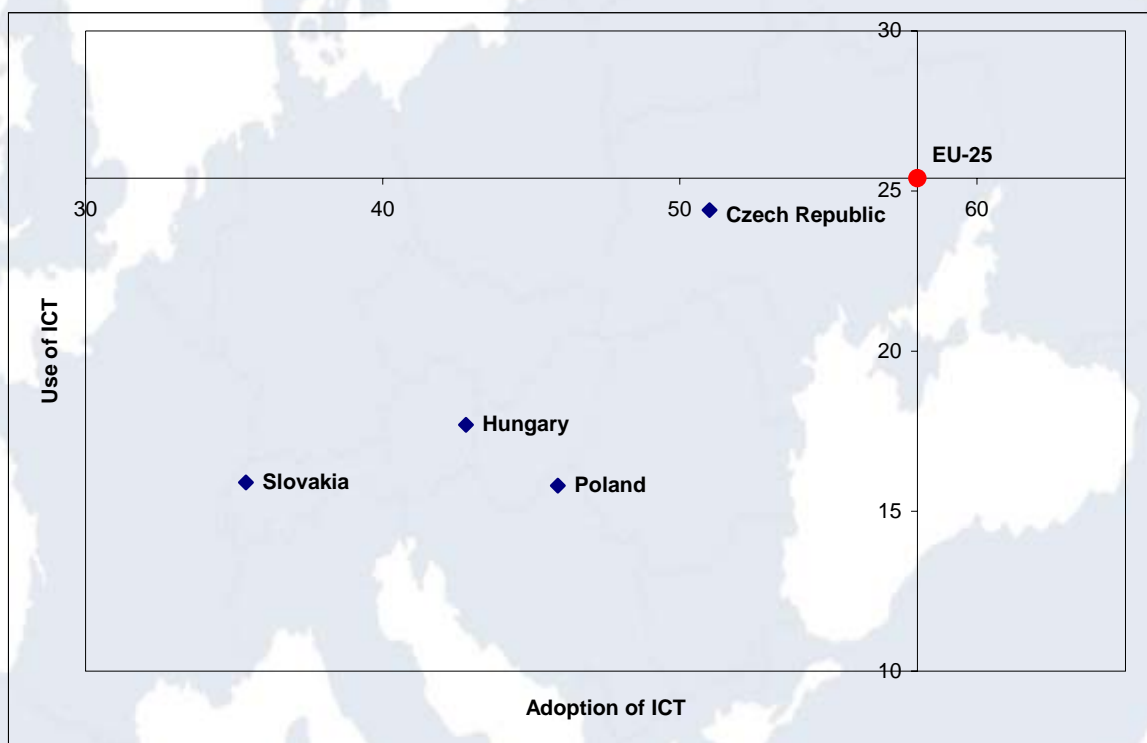
	2004				2005			
	CZ	HU	PL	SK	CZ	HU	PL	SK
<b>Enterprises using a computer (%)</b>	96	91	92	77	96	88	93	97
<b>Enterprises having access to the Internet</b>	90	78	85	71	-	-	-	-
<b>Enterprises with a broadband access</b>	38	-	28	25	52	48	43	48
<b>Enterprises having a website</b>	61	35	44	47	67	40	49	61
<b>Employed using computers with Internet connection</b>	23	26	21	19	26	17	27	26
<b>Enterprises using e-learning for training employees</b>	-	10	36	27	-	14	23	39
<b>Enterprises using Internet for banking and finance</b>	74	46	55	57	80	49	59	76
<b>Using Internet for interacting with public authorities</b>	75	35	74	47	79	67	64	57
<i>obtaining information</i>	68	34	57	42	73	63	52	50
<i>obtaining forms</i>	55	31	47	41	65	61	47	51
<i>returning filled in forms</i>	24	23	68	18	32	35	60	16

Source: Eurostat

More than 90% of enterprises used a computer in 2005 (except for Hungary) while the EU-25 average was 96%, increasing by 1 percentage point compared to the previous year. Based on the 2004 data it can be concluded that more than two thirds of the companies have an Internet access as well, which is not far from the average of the EU-25 (89%). Broadband penetration was extended rapidly between 2004 and 2005: at least 15 percentage points compared to 11 percentage points of the EU-25 average. Thus the digital divide between old and new member states slightly decreased concerning broadband access in the last year. This trend can be expected to continue as broadband access is becoming cheaper and the area covered by this type of connection will reach regions with less potential users as well. The proportion of companies having a website got also closer to the EU-25 average (58% in 2004 and 61% in 2005). As a result of higher ICT penetration the proportion of companies using the Internet for training or finances is much higher compared to households and individuals. Widespread computer and Internet use enable public authorities as well to lower bureaucracy and fasten administrative processes.

The European Union worked out a set of indicators for measuring e-Business readiness of the member states. The readiness index has two components: adoption of ICT and use of ICT. Adoption of ICT is calculated based on the share of enterprises having Internet access, broadband access, a home page, at least two security facilities, LAN and Intra- or Extranet and the proportion of employees using a computer as normal work routine. Scores for the use of Internet are the result of the proportion of companies receiving orders and purchasing via Internet, using it for banking and financial services, selling products on internet market places and have integrated IT systems. *Chart 1* presents the index values published in 2005. Compared to the average of the EU-25, a digital divide exists between old member states and the V4 countries, but it is much slower than in case of households and individuals.

**Chart 1. The e-Business readiness in 2005**



Source: Eurostat

## **EXPECTATIONS**

The Czech Republic, Hungary, Poland and Slovakia need to catch up with old members of the European Union. Despite governmental programs and increased efforts in many fields the digital divide still exists between old and new members. Concerning competitiveness the V4 countries have a better position as the difference in ICT penetration between them and the EU is slower than in case of households and individuals. As the adoption of ICT is nearing saturation the V4 countries managed to slightly decrease the digital divide, but concerning the use of ICT there is still much to achieve. As old members of the EU are still at the beginning of improving the use of ICT new member states will need much bigger efforts in order to catch up with the EU-15. Nevertheless, this situation offers an advantage for the newcomers: using the experiences of the front runners they can avoid expensive mistakes and can immediately implement successful policies.

Besides e-Business the V4 countries need to improve ICT penetration in households, where they face an even bigger digital divide. This divide does not exist only between member states but also within countries, between companies and individuals/households, and bigger and smaller enterprises. In order to achieve a balanced improvement of information society, individuals and small companies need to be connected to ICT circulation as well.

## REVENUE REDISTRIBUTION IN HUNGARY – ANALYSIS OF GOVERNMENT INCOME AND SPENDING

The most employed topic of the current Hungarian economic debate is the state of public finances and thus the role and the size of the state.

The structure of public finance should be derived from the different tasks of government with the spending items as well. The answer of welfare economics is: the state should intervene in those sections, where market failures arise, and conduct an active redistribution policy.

Hungarian tax centralization is 39.1% which is almost equal to European average (39.3%), but significantly higher than countries with the same standard of level. In the NMS-10 countries only Slovenia have a higher rate, the other ones are lower. The government income and spending should be analyzed separately. Two important groups can be made in terms of redistribution.

### DIRECT AND INDIRECT TAXES, SOCIAL CONTRIBUTIONS

According to proportion of total taxes, indirect taxes' share reaches 42%, direct taxes 22%, and social contributions 36%. Receipts from indirect taxes are far the highest, which are mostly the consumption taxes. This is a characteristic of weak attitude to taxation, because indirect taxes are easier to collect, than direct taxes.

**Table 4. Hungarian Tax to GDP 2000-2004**

	2000	2001	2002	2003	2004
<b>Indirect Taxes</b>	16.3	15.5	15	15.8	16.3
VAT	8.7	8.2	7.9	8.3	9.0
Excise Duties	3.9	3.6	3.6	3.7	3.4
Other	3.7	3.7	3.5	3.8	3.9
<b>Direct Taxes</b>	9.8	10.2	10.2	9.7	9.3
Personal Income Tax	7.2	7.6	7.6	7.1	6.7
Corporate Tax	2.2	2.3	2.3	2.2	2.1
Other	0.4	0.3	0.3	0.4	0.5
<b>Social Contributions</b>	13.1	13.7	13.7	13.5	13.5

*Source: Structure of the Taxation Systems in the European Union 2006*

Thanks to the changes made in indirect taxation, it has an impact of –1.4% on the inflation rate in 2006 – according to calculation of NBH. But this measure doesn't contain the increase of preferential VAT rate from 15% to 20%, as it should mean approximately HUF 150 billion (~EUR 550 million with 270 HUF/EUR exchange rate) additional income, so all in all this could turn the negative sign to positive. The decreasing of normal VAT rate by 5% favors the companies, and the increase of the 15% rate burdens the private sector, and does not affect enterprises (it's even worse for the poor, whose consumer basket contains more products of the preferential rate).

In order to raise the proportion of direct taxes, tax increase should be evitable, it would be better to improve the attitude to taxation and widen the tax base. The average income in Hungary (about net HUF 150 thousand ~ EUR 550 with 270 HUF/EUR exchange rate) is

taxed by the highest rate of personal income tax, which is rather unequal. To stop this, the present tax bracket will be doubled by the year 2010.

Social contributions are about European average, but the standard of Hungarian healthcare is way below than West-Europe, so there should no hesitation about the question of health reform. Renewing the system is inevitable, as at present time, it only reproduces the deficit.

### TAXATION ACCORDING TO ECONOMIC SITUATION

From an economic point of view – which rather important in terms of revenue redistribution – tax burdens can be made on consumption, labor and capital, as below in the *Table 2*.

**Table 5. Tax Proportions to Total Taxes in the V4 Countries according to Economic Function in 2004**

	Consumption	Labor	Capital
Hungary	39.5	49.8	8.0
Poland	35.9	42.0	16.8
Slovakia	34.6	46.9	16.5
Czech Republic	31.2	49.2	17.3
EU-25	28.0	50.4	14.4
NMS-10	36.0	46.2	13.8

*Source: Structure of the Taxation Systems in the European Union 2006.*

Taxes on capital are at low level in Hungary compared to almost all European countries, as *Table 2* shows. It stays under 10%. Taxes on labor is at the average level of the EU-25 – both of them are high – but that doesn't mean that personal tax incidence is the same, as implicit tax rates can be different – thanks to the rate of activity. One can see, that in Hungary, this rate of activity is very, the grey- and black economy is big, tax base are relative small, so implicit tax rates are higher. Decreasing labor taxes parallel with forcing back the black economy and simplifying the tax system in the meantime would all create the possibility of lowering tax rates without lowering the whole tax revenue.

Capital taxes should be emphasized more, as they are rather low in Hungary. In order to increase the proportion, the gain on exchange will be taxed from 1<sup>st</sup> of January 2007. Other capital taxes will be harmonized, like taxes on dividend and taxes on interest, with both three one at 10%, and from 1st of January 2010 at 18%.

The appropriate tendency would be the decreasing of labor taxes parallel with the increasing of capital taxes. Of course in normal frames, that it should help to solve the problems of labor market (low rate of activity and low rate of employment) but do not discourage capital markets, investments and companies.

### PUBLIC SPENDING ACCORDING TO FUNCTIONS

Measuring governance functions are made by COFOG (Classification of Functions of Government), which has 4 categories:

- State existence function: foreign affairs, defense, public order and safety
- Welfare function: education, health, social protection



- Economic function: sectoral economic affairs (agriculture, transport, energy supply)
- Governance-debt: debt service

Welfare functions are relative high both proportional or to GDP, it's 28.1% as a share of GDP in 2001. Most importantly, social spending should be re-thought, as on purchasing power, Hungarian spending are above the Swedish or Danish ones, and the system doesn't help to improve the failures of labor market. Social expenditures reach 20% as a share of GDP.

State existence function is an absolute actual topic, as the government is now constrained to start a reform of administration. Expenditures on this function will probably decrease, as lay-offs and restructuring are probable in order to cut spending.

Debt service is a about 4-4.5% as a share of GDP, and will be at this level for a couple of more years from now.

### **PROBLEMS AND OPPORTUNITIES FOR PUBLIC FINANCE**

There are several problems related to public finances:

- High tax rates on average earnings
- Tax base should be widened
- Changing the structure of government finance, and lowering spending are more important than increasing tax rates
- Forcing back the grey- and black economy
- Higher role for local taxation: a greater autonomy of local government should help decentralization and more effective spending of taxes
- Restructuring social spending
- Reform of public health

The Hungarian public finance should be reformed at the current situation. The government follows short-run aims to stabilize the economy and to create the opportunity of launching the euro in 2010. Albeit, that there's a great social demand, there are no appropriate conditions yet, for a „smaller governance”.

## ESTONIAN TAX-SYSTEM DEVELOPMENTS

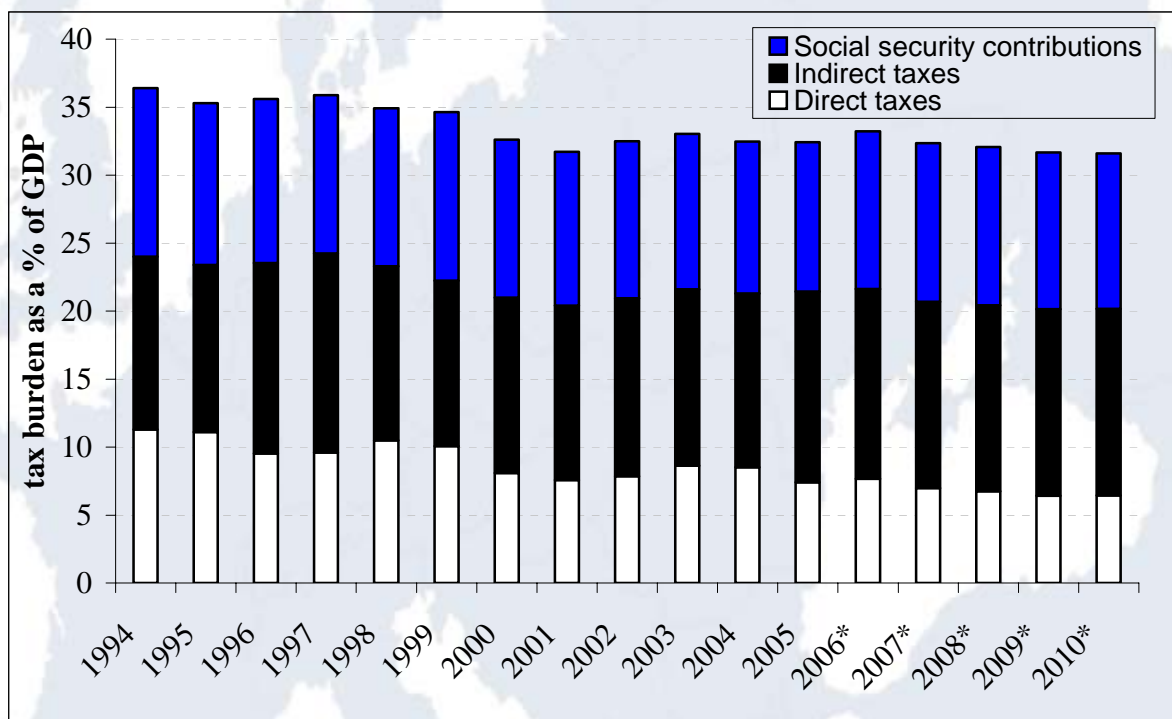
The Estonian economy one of the most successful countries of transition, as it is managed to establish stable growth rates, monetary and fiscal discipline and also democratic political life. As of facts, in 2005 Estonian GDP grew in real terms by 9.5% and the Ministry of Finance predicts 8.2% for the current year. The main monetary indicator consumer price index rose 4.1% in average during 2005 and it is expected by ICEG EC to finish in 2006 with a 3.4%. Regarding to fiscal discipline, Estonian general government balance has been in surplus for years (1.7% in 2004, 1.8% in 2005) and it will not change by our expectations (0.6-1% in 2006). The public debt is infinitesimally low. However, the external balance is considerable: the current account is in two digit deficit that is mainly covered by FDI inflows.

It is worth to investigate in short the tax system of Estonia that reflects priorities, directions and market approach of an operating economy.

### AGGREGATES OF THE TAX SYSTEM

To achieve sustainable, socially and regionally balanced economic growth Estonian tax system consists of state taxes (excise duties; income taxes; gambling tax; value added tax; land tax; social tax; customs duty; heavy goods vehicle tax) provided and imposed by tax acts and local taxes (sales tax; boat tax; advertisement tax; road and street closure tax; motor vehicle tax; animal tax; entertainment tax; parking charge) imposed by a rural municipality or city council in its administrative territory pursuant to law.

**Chart 2. Development of tax burden and its structure 1994-2010**



Source: Estonian Ministry of Finance

Having a look on the development of the tax burden (*Chart 1.*) one can observe a slight decline in the period of 1995-2001, and later stabilization on around 32.5% in the period of

2002-2005. By estimations of Ministry of Finance a further slow elimination of redistribution is expected.

As concerning the structure developments of tax burden a permanent decline of direct taxes (personal income, corporate income, social, land, heavy goods vehicle and gambling tax) and a stable other ones can be observed over the time series. The indirect tax (VAT, excise duty on alcohol, tobacco, energy products and packaging) burden jumped with the EU enlargement mainly in connection with VAT rate changes. This means a shift from the consumption to income and work friendly tax system.

Investigating the structure of tax revenues collected by the general government in 2005 (Table I.), by and large the most important contributors to the state budget are the social tax (34%), VAT (27%) and personal income tax (18%) and the excise duties (12%).

**Table 6. State Budget Tax Revenue 2005**

	Value collected (million EURO)	Share (%)
<b>State taxes</b>	<b>3 417.6</b>	<b>99.78</b>
<i>Direct taxes</i>	<i>2 018.2</i>	<i>58.92</i>
Personal income tax	621.2	18.14
Corporate income tax	159.6	4.66
Social tax	1 158.9	33.84
Unemployment insurance	46.4	1.35
Land tax	32.2	0.94
<i>Indirect taxes</i>	<i>1 399.4</i>	<i>40.86</i>
VAT	938.1	27.39
Excise duties	417.0	12.17
Heavy vehicle tax	3.6	0.10
Customs tax	22.2	0.65
<i>Local taxes</i>	<i>7.5</i>	<i>0.22</i>
<b>TOTAL</b>	<b>3 425.2</b>	<b>100.00</b>

Source: Estonian Ministry of Finance

Estonia's tax structure is quite similar to international ones. During recent years, social taxes and indirect taxes both accounted for a little over a third of total tax revenue, and income taxes about a quarter, analogously like in Latvia and Lithuania. Estonia and the other Baltic countries in comparison with EU-15 rely relatively more on indirect taxes and social tax. Estonia's indirect tax share has been increasing, and Estonia now has one of the highest ratios of indirect to direct taxes among advanced economies. This ratio will increase as income tax reductions are phased in 2006 and 2007.

The tax system is relatively simple and an almost flat income tax system is operating.

### **DIVERSE TAXES BEHIND THE AGGREGATES**

**Personal income tax.** The personal income tax is the most important classical direct tax in Estonia with its 18% share in total tax revenues. The tax rate in 2006 23% and it is planned to cut it every year by 1% till the level of 20%. The rate on pensions and capital gain is 11.8%. The Income Tax Act disposes of non taxable minimum of EUR 1534 in 2006 that increased

from the EUR 767 in 2003. The amount received by local governments is 11.8 % of taxable income (deductions are not taken into account), the excess amount is received by the state.

**Corporate income tax.** While by the value of ensured revenues it is not, by the relation to business sector it is an important tax with its rate of 23% that is parallel with its personal pair planned to reduce to the level of 20% till 2009. In 2000 a crucial reform happened related to CIT: the timing of tax payment changed, as it is postponed until the moment of profit distribution and also strict rules were implemented for avoidance of tax evasion by off-shoring, transfer-pricing. Due to these reforms after one year decrease in CIT revenues, the authorities managed to increase the revenues more than 3 times till 2006.

**Social tax.** The most remarkable amount of money was extracted from social taxes in 2005 as it reached almost 34% of all revenues. The tax rate is 33% and the tax bases are wage income paid by employers and business income of sole proprietors, 13% of which goes to health insurance system and 20% to different pillars of pension system depending on personal obligation. In nominal terms the budget managed to collect five times higher amount out of this tax.

**Value-added tax.** This tax bears first place in the group of indirect taxes by amount collected in 2004. The tax consists of three rates: 18% standard rate, 5% reduced rate for books, medicines etc. and a zero rate for export, intra-Community supply, vessels and aircrafts used on international routes, including equipment and fuel, goods and services for consumption supplied on board of vessels and aircrafts.

**Excise duties.** The targeted products as usually are: tobacco, fuel, alcohol. The ranking of these products in total collected excise duties by 2005 data is led by fuel products 51.4%, followed by alcohol's 29.7% and closed by tobacco's 18.9%. By the expectations of Ministry of Finance the share of fuel related excise duty receipts will increase further as a natural result of fuel price developments.

## **FUTURE OF ESTONIAN TAX SYSTEM**

The plan of Estonian government in connection of tax system is based on the general trend represented by the intention to lower labor related and to increase consumption related indirect taxes, like VAT and excise duties and to decrease income taxes as it was mentioned above.

The indirect tax increase has no remarkable long term effect in terms of inflation as it is expressed in temporary influence on consumer prices. However the labor related taxes intensively affects the employment and in the case of income taxes the consumption and the savings.

There are rationales behind the relatively and by expectations even higher indirect tax burden and further decrease of direct one.

- In post socialist countries the administrative capacity and efficiency is low, thus indirect taxes seem to be collected and administered easier than direct taxes, like income taxes.
- In advancing economies the direct taxes play significant role in competitiveness, capital accumulation.

- This structure is economically more neutral and a result of less redistributive more competitiveness and performance based approach.

This relocation of tax burden however will cause revenue gap in budget that can be filled by new measures in the area of indirect taxes. By the Estonian government the tax revenue has to stay on 33% of GDP. However, tax revenue is projected to decline to 31.2 percent of GDP by 2007. Thus further steps are projected to be done among indirect taxes.