Gábor Kutasi

Fiscal competitiveness of EU8+2 countries

It is essential for the convergence of the EU8+2 economies that a stable business environment be established as a starting point, which in their case can be achieved by sustainable and balanced fiscal policy. Fiscal balance improves both a country's capital appeal and the chances of euro adoption which would further their competitiveness in the single European market. The positions achieved by the EU8+2 economies in the competitiveness race compared to one another should therefore be looked into. Similarly to a comparative country-based leaderboard among actual competitors, the national fiscal policies of the EU8+2 countries can also be ranked.

Participation in the integration processes of the European Economic Community represents the only realistic chance for Eastern European EU member states to attain convergence to this group of more developed economies. Preparations of the implementation of the single European currency has a side-effect, which enhances the competitiveness and convergence chances of euro-adopting member states. This is none other than a solid business environment achieved by meeting the Maastricht criteria; an economic policy background that ensures stability via balance and predictability, which in turn reduce country risks. Similarly to a comparative country ranking among actual competitors in terms of capital appeal, labour costs, gross domestic product etc., this study provides a leaderboard of EU8+2 countries in terms of fiscal policy, as well. It is the responsibility of fiscal policy to establish a steady business environment for economic growth, and capital investments in particular. As a cascading effect, the latter creates jobs, income, solvency, economic efficiency, and technological progress. Consequently, fiscal competitiveness – or rivalry among fiscal policies – indicates that a national fiscal policy that is able to create a stable and supportive business environment necessary for convergence to the most developed economies in a shorter timeframe or in a more efficient structure is more competitive.

FRAMEWORK OF ANALYSIS

Fiscal policies are ranked on the basis of five main factors, including budget structure, institutional efficiency, sustainability, flexibility, and financial efficacy. Basically, all five factors seek the strengths and weaknesses of a country's budget, or in other words the vulnerability of the budget. The concept of fiscal vulnerability compiles budget weaknesses that originate from the public spending body, the capacity of the institutions, budget control or, in a wider

aspect, from inappropriate government efficiency (Hemming and Petrie, 2000). Fiscal vulnerability means everything that does not meet these requirements – as if being the inverse or negative image of sustainability, stability, covered expenditures, and transparency. The primary focus of vulnerability analysis should be whether fiscal policy manages to meet medium-term and long-term key objectives of sustainability and short-term budget target figures based thereon, and what weaknesses jeopardise these objectives. For instance, when the initial deficit target is high for starters, long-term balance is likelier to be achieved. And if the ratio of automatic revenues stabilisers is low, then the year-end outcome becomes uncertain.

The ranking of countries will be developed as the conclusion of the analyses by establishing sub-indices of ranking upon the results of the five main aspects.

The ranking of budget structure will be averaged on the basis of three sub-indices *(S_i)*, each of which are divided into additional components.

S_1 = expenditures sub-index = *[$s_{1;1}$ (the ranking of expenditure volume) + $s_{1;2}$ (ranking of net balance of social security system) + $s_{1;3}$ (ranking of interest expenditures)]/3;*

S_2 = revenues sub-index = *[$s_{2;1}$ (ranking of revenue demand) + $s_{2;2}$ (ranking of indirect taxes) + $s_{2;3}$ (ranking of property tax) + $s_{2;4}$ (ranking of the reciprocal of the weight of corporate tax)]/4;*

S_3 = sub-index of deficit structure = *[$s_{3;1}$ (ranking of primary balance) + $s_{3;2}$ (ranking of structural balance)]/2.*

The ranking of institutional efficiency also consists of three sub-indices (I_i):

I_1 = ranking of governmental centralisation index; (Gleich, 2003);

I_2 = ranking of corruption perception index; *(Transparency International, Corruption Perception Index, www.transparency.com);*

I_3 = ranking of the average of deviation from deficit target.

The ranking of budget sustainability is also comprises of three sub-indices (F_i):

F_1 = sub-index of primary gap (Blanchard, 1990);

F_2 = sub-index of tax gap (Blanchard, 1990);

F_3 = IFS 2005 (60;0) sub-index (Croce and Juan-Ramon, 2003).

Fiscal flexibility ranking is based on the FFI *(fiscal flexibility index)* used by Standard and Poor's (2007).

The sub-index of financial efficiency is identical to the tax gap ranking of 2006.

The ranking of sub-indices is established on the basis of the following aspects:

- expenditure + interest expenditure + revenue demand + tax gap – the smaller in terms of GDP, the better;
- net balance of social security + primary balance + structural balance – the bigger the deficit, the worst; and the bigger the surplus, the better;
- weight of indirect taxes within tax revenues + weight of property tax + reciprocal of the weight of corporate tax – the bigger, the better;
- |IFS| the lower, the better;
- the more the actual figure deviates for the deficit target, the worse; the bigger the deviation into the positive territory, the better.

ANALYSIS OF BUDGET STRUCTURE

When the aim is to assess fiscal policy in international comparison, the strengths and weaknesses of the applied budget and the conditions that define it should be found. Analysing the budget deficit and the changes in public debt in terms of GDP is not sufficient, because these are just final figures and do not reflect what measures should be taken at which points in order to achieve balance and sustainability targets. The source of weaknesses – or the neces-

sary points of change – will be found in the composition of the budget and the institutional structure. The system of structural indicators helps identify the composition.

On the expenditures side, first to be analysed is the size of actual tax burdens and the extent at which they are spread evenly across various strata of the society. The former is called effective tax, the calculation of which is important because official tax rates defined by national tax laws are misleading, because differences in the calculation of taxable amounts, various tax allowances and reduction could significantly modify the total of taxes received by the treasury relative to official tax rates.

In the case of budget deficit, the factors causing the gap should be analysed apart from scrutinising whether the overspending meets the Maastricht criteria and the long-term balance target as defined in the SNP. The factors are to be divided into two groups: structural and economic (cyclical) factors. Both groups represent risks on balance objectives at a different extent. Economic factors modify tax revenues in line with economic cycles, meaning lower tax revenues in the recession phase of a cycle will be offset by higher tax income in the upswing stage. In this case it's not necessarily cycle-driven revenues and expenditures – acting as automatic stabilisers – should be adjusted but economic fluctuations are to be dampened. Structural deficit stems from faults in the fiscal system that increase expenditures or reduce tax revenues irrespective of economic cycles. In this case structural changes are the only way to improve fiscal balance.

Based on the expenditures structure of the EU8+2 countries, the following facts can be discerned:

- The largest financial redistribution is operated in Hungary where the government spent 52.96 per cent of GDP in 2006, financing 9.2 per cent in terms of GDP on loans. Hungary spends more than the other EU8+2 countries do in the following ESA' 95 expenditure groups: social transfers, employer compensation, interest expenditures, capital transfers to be paid.
- As for the extent of expenditures level, Hungary's outrageous ranking is followed by a group consisting of the Czech Republic, Poland, and Slovenia, where the factors causing substantial overspending are the same as in Hungary. The third group comprises of Bulgaria, Slovakia, and Latvia, where the structure of expenditures greatly differ from the countries mentioned earlier. Governments with the smallest expenditure rate in 2006 were operated in Estonia, Lithuania, and Romania *(see Chart 1)*
- In terms of GDP, Hungary has the biggest extent and ratio of interest payment obligation, not surprisingly, as it is the consequence of excessive public debt.
- Statistical data compiled in line with COFOG classification indicate that the absolute majority of expenditures is spent by the central government in each country. The most significant expenditure items are related to social security and public services.
- Social security systems generate considerable deficits in each country surveyed, but Slovenia, Poland, and Hungary struggle with serious structural problems in comparison to the average *(see Table 1)*.

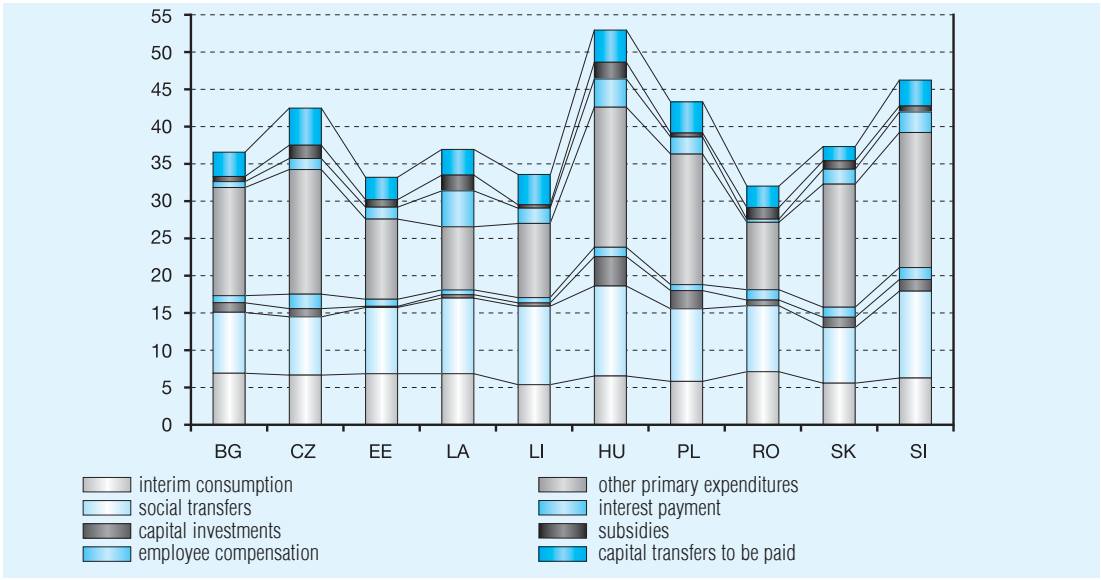
Based on the tax revenues structure in 2005 *(see Tables 2 and 3)*, the following can be discerned:

- Regarding the total tax burden, the extent of taxes and contributions was exceptionally high in Slovenia (40.5 per cent), Hungary (38.7 per cent), the Czech Republic (36.3 per cent), Bulgaria (35.9 per cent), and Poland (34.5 per cent), close to the continental social model. In Slovakia, Romania, and the Baltic States, this ratio was between 28 per cent and 30.8 per cent, similar to liberal social models.
- Even though indirect taxes on consumption look like the most beneficial from a num-

Chart 1

COMPARISON OF EXPENDITURES STRUCTURE IN EU8+2, 2006

(in percentage of GDP)



Source: EUROSTAT

BG - Bulgaria, CZ - Czech Republic, EE - Estonia, LA - Latvia, LI - Lithuania, HU - Hungary, PL - Poland, RO - Romania, SK - Slovakia, SI - Slovenia

ber of aspects (easier to collect than corporate tax because the tax subject and the tax payer are not the same; do not affect labour costs as opposed to Personal Income Tax; rein consumption unlike taxes on interest, dividend and stock market gains), Bulgaria has been the only one to record more than 50 per cent of its tax revenues out of indirect taxes. The rest of the countries see typical ratios in this scope between one-third and one-fourth.

◗ Capital taxes in terms of GDP were extremely high in the Czech Republic (7.1 per cent) and Poland (8.4 per cent), but far the lowest in the Baltic States (2.5 to 3.3 per cent). However, less than 20 per cent of tax revenues originated from capital taxes in all the other EU8+2 countries except for Poland.

◗ As far as capital taxes were concerned, Hungary (with 4.5 per cent) was more competitive than Slovakia (4.8 per cent) and Romania (4.9 per cent). After the tax law amendments of 2006, taxes on capital are now estimated at more than 5 per cent.[1]

◗ The EU8+2 countries have so far failed to capitalise on the potentials of property tax, with Poland and Hungary alone being some kind of exceptions. So far it has been acceptable that the implementation of property tax seemed unachievable at the time of economic transition from political, social, and administrative aspects. However, in the medium term it could be a very much traversable path either to widen the tax base (and increase tax revenues) or to collect taxes more efficiently.

Analysing the deficit structure, a considerably laxer fiscal discipline in Hungary, the Czech Republic, and Romania between 2000 and 2006 is readily discernible, because the primary balances without interest payment denominated in the euro were deteriorating, and Hungary was the only country to manage to arrest this downturn in terms of GDP. Also,

Table 1

SOCIAL SECURITY FUNDING, 2004

(as a percentage of GDP)

	BG	CZ	EE	LA	LI	HU	PL	RO	SI	SK	EU8+2 average	Spread
Health and social protection expenditures (COFOG)	17.2	20.0	14.6	14.5	14.3	21.7	22.0	15.8	24.5	19.6	18.42	3.6472
Income from contributions (ESA 95)	10.5	15.1	10.8	8.9	8.7	12.4	12.3	9.6	15.0	13.3	11.66	2.3415
Net balance	**–6.7**	**–4.9**	**–3.8**	**–5.6**	**–5.6**	**–9.3**	**–9.7**	**–6.2**	**–9.5**	**–6.3**	**–6.76**	**2.0560**

Source: EUROSTAT, author's own calculations

Table 2

RATIO OF MAIN TAX REVENUES TO GDP, 2005

(percentage)

	Taxes on consumption (indirect taxes)	Labour taxes	Taxes on capital	Total taxes
BG	18.4	11.8	5.7	35.9
CZ	11.4	17.8	7.1	36.3
EE	12.9	15.4	2.5	30.8
LA	12.4	14.2	2.8	29.4
LI	10.9	14.6	3.3	28.8
HU	14.6	19.6	4.5	38.7
PL	12.2	13.9	8.4	34.5
RO	12.4	11.0	4.6	28.0
SI	13.9	21.7	4.9	40.5
SK	12.5	12.6	4.8	29.9

Source: EUROSTAT, downloaded on 25 July 2007, europa.eu.int/comm/eurostat

Table 3

BREAKDOWN OF CAPITAL INCOME TAX 2005

(as a percentage of GDP)

	Corporate tax	Taxes from self-employment	Capital income tax of households	Property tax
BG	3.1	1.8	0.1	0.7
CZ	4.5	1.7	0.1	0.7
EE	1.4	0.1	0.3	0.6
LA	2.0	0.1	0.0	0.7
LI	2.1	0.2	0.4	0.6
HU	2.2	0.3	0.6	1.3
PL	2.5	3.5	0.2	2.2
RO	2.7	0.5	0.8	0.6
SI	2.9	0.8	0.2	1.0
SK	2.8	1.2	0.0	0.7

Source: EUROSTAT, downloaded on 25 July 2007, europa.eu.int/comm/eurostat

in Slovakia – where the primary balance had been in the negative territory – started to increase both in terms of euro and GDP from 2005 onwards. *(See Tables 4, 5, 6)*

Primary surplus was first achieved in Estonia and Bulgaria in 2003, Slovenia and Lithuania in 2004, and Latvia in 2005. It means that a positive balance was accounted to make debt obligation payments after the balance of expenditures and revenues. However, these funds are not always sufficient in every country. The primary balance was large enough in Estonia, Latvia, and Bulgaria only to cover interest payments in 2006, but the other countries had to raise additional loans or issue government bonds.

Wherever public debt failed to decrease as described above, the sustainability of fiscal structure raises doubts. In this sense it was

Table 4

PRIMARY BALANCE
(as a percentage of GDP)

	1999	2000	2001	2002	2003	2004	2005	2006
Euro-12	2.9	4.2	2.2	1.0	0.2	0.3	0.5	1.3
Czech Republic	–2.5	–2.8	–4.8	–5.5	–5.5	–1.7	–2.4	–1.8
Hungary	1.9	2.6	1.0	–4.3	–3.2	–2.1	–3.7	–5.3
Poland	0.6	1.4	–0.7	–0.4	–3.3	–2.9	–1.5	–1.5
Estonia	–3.4	–0.3	0.5	0.6	2.3	2.5	2.5	3.9
Latvia	–4.1	–1.8	–1.1	–1.5	–0.9	–0.3	0.3	0.9
Lithuania	–4.1	–0.8	–0.4	–0.2	0.0	–0.6	0.3	0.2
Slovenia	0.2	–1.0	–0.4	–0.2	–0.7	–0.5	0.2	0.2
Slovakia	–3.1	–8.2	–2.0	–4.1	–0.2	–0.2	–1.3	–2.0
Bulgaria	:	:	:	:	1.3	4.0	3.4	4.6
Romania	:	:	:	0.5	0.1	–0.1	–0.3	–1.1

Source: EUROSTAT

Table 5

FISCAL DEFICIT
(as a percentage of GDP)

	1999	2000	2001	2002	2003	2004	2005	2006
Euro-12	–1.3	0.0	–1.8	–2.5	–3.0	–2.8	–2.5	–1.6
Czech Republic	–3.7	–3.7	–5.7	–6.8	–6.6	–2.9	–3.5	–2.9
Hungary	–5.5	–2.9	–3.4	–8.2	–7.2	–6.5	–7.8	–9.2
Poland	–1.8	–1.5	–3.7	–3.2	–6.3	–5.7	–4.3	–3.9
Estonia	–3.7	–0.2	–0.3	0.4	2.0	2.3	3.3	3.8
Latvia	–5.3	–2.8	–2.1	–2.3	–1.6	–1.0	–0.2	0.4
Lithuania	–2.8	–3.2	–2.1	–1.5	–1.3	–1.5	–0.5	–0.3
Slovenia	–2.1	–3.8	–4.1	–2.5	–2.8	–2.3	–1.5	–1.4
Slovakia	–6.4	–11.8	–6.5	–7.7	–2.7	–2.4	–2.8	–3.4
Bulgaria	:	:	:	:	–0.9	2.1	1.9	3.3
Romania	–4.5	–4.6	–3.3	–2.0	–1.5	–1.5	–1.4	–1.9

Source: EUROSTAT

Table 6

PUBLIC FINANCE BALANCE, STRUCTURAL BALANCE, AND THE IMPACT OF PENSION REFORMS

(as a percentage of GDP)

	2005	2006	2007	2008	2009
Bulgaria					
Public finance balance	2.4	3.2	0.8	1.5	1.5
Structural balance	2.4	2.9	0.4	1.0	1.1
Pension reform impacts	..	0.6	2.6	0.6	0.1
Czech Republic					
Public finance balance	–3.6	–3.5	–4.0	–3.5	–3.0
Structural balance	–3.6	–3.8	–4.2	–3.6	–3.0
Pension reform impacts	..	–0.2	–0.4	0.6	0.6
Estonia					
Public finance balance	2.3	2.6	1.2	1.3	1.6
Structural balance	2.1	1.7	1.2	1.3	1.6
Pension reform impacts	..	0.4	–1.1	0.6	0.4
Hungary					
Public finance balance	–7.8	–10.1	–6.8	–4.3	–3.2
Structural balance	–8.1	–9.7	–5.7	–3.8	–2.8
Pension reform impacts	..	–1.5	4.1	1.8	1.0
Latvia					
Public finance balance	0.1	–0.4	–1.3	–0.9	–0.4
Structural balance	0.0	–0.9	–1.8	–1.1	–0.5
Pension reform impacts	..	–0.9	–0.9	0.7	0.6
Lithuania					
Public finance balance	–0.5	–1.2	–0.9	–0.5	0.0
Structural balance	–1.0	–2.0	–1.7	–1.0	–0.2
Pension reform impacts	..	–0.8	0.6	0.7	0.8
Poland					
Public finance balance	–4.3	–3.9	–3.4	–.31	–2.9
Structural balance	–4.1	–3.9	–3.4	–3.1	–3.0
Pension reform impacts	..	0.4	0.5	0.4	0.3
Romania					
Public finance balance	–0.8	–2.3	–2.7	–2.4	–1.9
Structural balance	–1.8	–3.3	–3.7	–3.4	–2.7
Pension reform impacts	..	–1.5	–0.4	0.4	0.6
Slovakia					
Public finance balance	–3.1	–3.7	–2.9	–2.4	–1.9
Structural balance	–2.3	–3.8	–3.0	–2.5	–1.9
Pension reform impacts	..	–0.9	0.7	0.6	0.6
Slovenia					
Public finance balance	–1.4	–1.6	–1.5	–1.6	–1.0
Structural balance	–1.2	–1.7	–1.6	–1.8	–1.0
Pension reform impacts	..	–0.5	0.1	–0.2	0.8

Source: updated national convergence programs, structural balance = public finance deficit less cyclical element

obvious that the fiscal policies pursued in Hungary and Poland until 2006 were not sustainable, because their public debts expanded in terms of GDP. As for the development of fiscal deficit, in addition to Hungary it was in Slovakia and Romania where the balance deviated from the equilibrium position. In the latter two countries the deficit in 2006 was still far from the three-percent criteria, but inflation impacts stemming from government overspending could risk the euro adoption targets of these countries.

INSTITUTIONAL CHARACTERISTICS OF FISCAL POLICY AND BUDGET PLANNING

The composition and type of institutional operation essentially defines the efficiency of fiscal policy. The ministry of finance designs a budget of balance to no avail if the government approves a different proposition or state institutions do not abide by it. Institutional indicators also seek the weaknesses and vulnerable spots of the budget, but not in the internal composition of the budget but in processes and institutional characteristics that influence, from budget planning until completion of execution, the extent at which the structure of expenditures and revenues can be detoured from the initial plans.

From the aspect of institutions, the EU8+2 countries reflect a very similar structure. As a result of political transition to democracy, similar political decision-making and controlling institutional systems have been established. Each national system is based on multi-party coalition government, which stipulates ab ovo the finance minister's limited control over trimming the spending allocation of the ministries. The control exercised by finance ministers are roughly identical in each country. Perhaps Estonia is the only exception where the minister of finance is allowed by the Budget Act to omit or modify expenditure items in the budget bill. *Gleich* (pp. 17–18, 2003) reports of two other countries where the prime ministers have stronger control: In Slovenia and Latvia the prime ministers can override the cabinet decision.

As for fiscal discipline, the picture is quite mixed, although the key trend is to build mandatory limitations in the budget planning and execution system, also seen in international budget planning processes. The expenditure demands in Slovenia, Estonia, Latvia, Bulgaria, and the Czech Republic are planned by the ministries and the target figures are defined by the financial authorities independently from one another. On the other hand, fiscal targets in Hungary, Slovakia, Romania, and Lithuania are determined on the basis of expenditure demands. However, neither design is a guarantee in itself that the ministries are bound to observe the target numbers. Only three countries have implemented limitations for public debt: Estonia caps foreign loans, Latvia applies non-binding guidelines, but Poland's constitution applies a very strict cap at 60 per cent of GDP (Gleich, 2003).

Slovenia operates a budget planning system spanning several years that is unique in structure and efficiency not only in the EU8+2 but among OECD countries. The budget is planned and approved each year for the next two years. Of course, the budget for the second year is discussed again in the preceding year, disallowing to neglect planning and debating the budget every two years, but this time the manoeuvring space for modifications is very narrow. According to *Kraan* and *Wehner* (2005), this setup is able to improve fiscal discipline efficiently because on the one hand it forces ministries to think ahead, thus the minister of finance realises in advance their medium-term demands for larger expenditures, which is an information advantage for him. On the other hand, only limited modifi-

cations are allowed during reconsideration of the second year, which improves the predictability of fiscal policy. And it should also be noted that Slovenia is always in Year 2, because this is not a system restarted every two years but a continuous planning. As a result, the options of ministries for increasing their expenditure demands in the upcoming year is always limited.

In the Czech Republic, multi-annum budget planning has been in effect since 2006, supported, from the aspect of fiscal discipline, by a fixed budgeting schedule introduced in 2004. Multi-year planning always defines the detailed annual budget for the upcoming year, determines key numbers and the limit of the total expenditure for the second year, and lays down the key numbers alone for the third year. In addition, projections related to expenditures of ministries for the second and third year are discussed at cabinet meetings (Sedmihradská and Klazar, 2003)

In Lithuania, the Senior Cabinet Committee is tasked with tabling a proposition for budget target figures and strategic plans. In Romania and the Czech Republic, the minister of finance and the prime minister define the expenditure cap of each ministry, but only when expenditure demands have been submitted. In Hungary – singularly among the EU8+2 countries – the Parliament takes a vote on overall budget figures and the deficit months before the final budget bill. It means the parliament is seemingly involved in the budgeting process, but in fact the parliaments of each EU8+2 country only has a formal decision-making role, except for cases where the government has become a minority cabinet due to retirement by a coalition partner (Slovakia in 2004, Romania in 2005, Lithuania is 2006, and Poland in 2007) or because of an election stalemate (the Czech Republic in 2006).

The breakdown and analysis of the government centralisation index tell most about the efficacy of budget planning and the institutional background of fiscal execution. When the countries surveyed are compared in terms of the data for 2003 *(see Table 7, Chart 2)*, it becomes clear that countries with strict fiscal discipline – i.e. Slovenia, Slovakia, Estonia, Latvia, Lithuania, Bulgaria – differ from laxer countries – such as Hungary, Poland, the Czech Republic, and Romania – in that they achieve clearly better overall results in the executive phase *(see Table 8)*. Consequently, they have smaller space to deviate from the initial plans or to amend the law when the budget act is being executed, or if they do it they can only do it with a strong legislative authorisation. Apart from that, the ministries of finance typically have a stronger clout in defining budget targets in disciplined countries, except for Lithuania. *(See Chart 2/a, 2/b)*

The government centralisation index is far the lowest in Hungary and Romania, indicating the laxest fiscal discipline in these two countries. OECD establishes (pp. 261, 273–275, 2006) that Hungary introduces excessive laxity in each election period and no significant stringency has been implemented after 2002 to correct any increase in discretional expenditures. Besides, *"clear rules of fiscal discipline are missing";* there are no spending caps; no rules as to what to do in case of lower revenues; no financial impact studies on ministerial decisions; no clear rules for execution. Budget modifications are not transparent, because there's no standard information mechanism or financial impact studies in case of budget adjustments. Worse, forecasts are not clear or transparent, because the Ministry of Finance refuses to publish detailed calculations and there are no public discussions of the forecasting methodology – and it does not help improve the system. The OECD report deems it necessary to establish an independent forecasting institution like in Slovenia. The OECD (2006) regards the budgeting method as one of the main reasons for the

Table 7

GOVERNMENT CENTRALISATION INDICES BY COMPOSITION

	(1) Preparations phase						(2) Legislative phase							(3) Executive phase						INDEX*		
	1.	2.	3.	4.	Preparation s. total		5.	6.	7.	8.	9.	Legislative. total		10.	11.	12.	13.	Executive. total		points	rank	
					points	rank						points	rank					points	rank			
Bulgaria	0	3	4	0	*1.75*	*5.*	4	0	0	1.33	1.33	*1.33*	*9*	1.33	2.67	4	4	*3*	*3.*	**2.027333**	**8.**	BG
Czech Republic	0	4	4	2	*2.5*	*3.*	4	0	4	2.67	2.67	*2.67*	*1.*	1.33	2.67	1.33	2.67	*2*	*7*	**2.389333**	**5.**	CZ
Estonia	2	3	4	0	*2.25*	*4.*	4	4	0	1.33	2.67	*2.4*	*3.*	4	4	2.67	4	*3.67*	*1.*	**2.772667**	**1.**	EE
Hungary	0	1	4	0	*1.25*	*6.*	4	0	0	2	2.67	*1.73*	*7.*	2.67	1.33	2.67	2.67	*2.34*	*6.*	**1.773**	**9.**	HU
Latvia	2	2	4	4	*3*	*1.*	4	0	0	0	2.67	*1.33*	*8.*	4	4	2.67	4	*3.67*	*1.*	**2.667333**	**2.**	LA
Lithuania	0	1	4	2	*1.75*	*5.*	4	4	0	0	1.33	*1.87*	*6.*	4	4	1.33	1.33	*2.67*	*5.*	**2.093667**	**7.**	LI
Poland	2	1	4	2	*2.25*	*4.*	2	4	0	2.67	4	*2.53*	*2.*	4	2.67	2.67	2.67	*3*	*2.*	**2.595667**	**3.**	PL
Romania	0	1	4	0	*1.25*	*6.*	0	0	0	0	1.33	*0.27*	*10*	4	4	2.67	4	*3.67*	*1.*	**1.728**	**10**	RO
Slovakia	0	1	4	2	*1.75*	*5.*	4	0	0	2.67	2.67	*1.87*	*5.*	2.67	2.67	4	2.67	*3*	*2.*	**2.207**	**6.**	SK
Slovenia	0	3	4	4	*2.75*	*2.*	2	4	0	1.33	4	*2.27*	*4.*	2.67	2.67	2.67	2.67	*2.67*	*4.*	**2.562**	**4.**	SI

Source: Gleich (page 25. 2003) and author's own calculations
* INDEX = (PREPARATIONS + LEGISLATION + EXECUTION) / 3

1. existence of binding budget rule; 2. timetable of fiscal decisions; 3. budget planning; 4. persons responsible for reconciliation of disputes stemming from holes in the budget ; 5. the relative clout of the houses of legislation; 6. legislative limits to amend proposals submitted by the financial government; 7. voting schedule; 8. Clout of executive power and Parliament relative to one another; 9. Role of the President of the Republic in the budgeting process; 10. flexibility during execution; 11. reshuffle between expenditure chapters; 12. reallocation of unused funds to the next year; 13. proceedings in case of deviation from fiscal deficit target; see Gleich (page 15, 2003) in detail.

Table 8

EXISTENCE OF TOOLS TO IMPROVE FISCAL DISCIPLINE IN THE EU8+2 COUNTRIES

	BG	CZ	EE	PL	LA	LI	HU	RO	SK	SI
Public debt limit			X	X	X					
Financial planning of key figures irrespective of expenditure demands	X	X	X		X					X
Finance ministry's sole responsibility to prepare key macroeconomic forecasts	X	X	X					X	X	
Spending cap for ministries or major expenditure items				X						

Source: author's own survey

vulnerability of the Hungarian budget, because it focuses on the deficit and the current year and not on a cyclically adjusted deficit – not on the medium term, in other words. As a result, plenty of expenditures are accounted for the next year or years and not for the current year.

In Romania, somewhat more efficient mechanisms and regulations have ensured fiscal discipline since the act on budget planning was approved in 2001. The government defines spending caps for the next three years, reviewed each year. Only subsequently can the ministries define their annual spending figures over which, however, the finance minister has no influence. As a positive feature, Romania's budgeting defines the fiscal targets for the medium term, including a deficit below 3 per cent of GDP. On the other hand, the targets are not binding, they are rather like a projection, therefore they can be modified easily. (Ruffner et al., 2005)

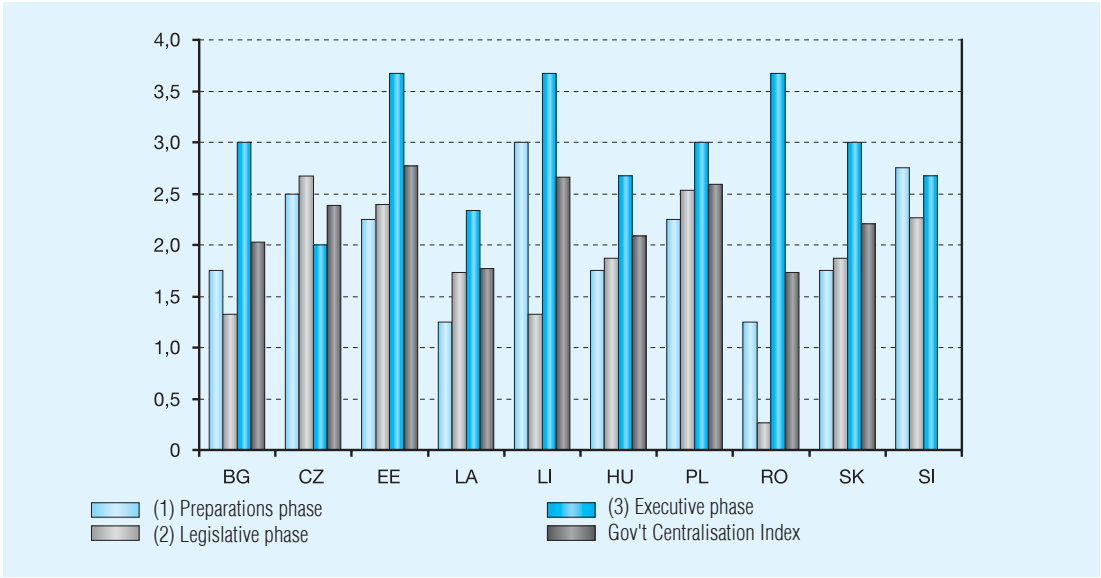
Ruffner et al. (2005) as well as Kraan and Wehner (2005) mention that both Romania and Slovenia have a very detailed breakdown of budget accounts, which means thousands of budget items – roughly 9,000 in Slovenia. Fiscal flexibility is greatly damaged by this method, because it records the usage of funds in a very fragmented manner. Flexibility also applies in the case of Romania. In Slovenia, however, the 'Act on Budget Execution' allows the government to make flash transfers between expenditure items by decrees, ensuring flexibility during execution.

Corruption level, regarded as a factor to damage business environment, shall also be examined. Published by Transparency International each year, the *Corruption Perception Index* indicates Slovenia and Estonia to be exceptionally favourable places in terms of public purity and public administration transparency for decision-makers in the private sector. Falling somewhat behind, a pack has emerged consisting of the Czech Republic, Slovakia, Latvia, and Lithuania, which closed in on the transparency level of group-leader Hungary in 2005 and 2006. Moreover, the Czech Republic managed to return to the 1998 level in 2006 after a considerable crisis of confidence. The third group has Poland stagnating with much worse transparency data, already taken over by Bulgaria in 2002, but Romania is also in close pursuit. *(See Chart 3)*

Deviations from target deficits were calculated on the basis of balance targets defined for the period between 2002 and 2005 in the 2002 Pre-accession Economic Programme (PEP) and for the 2006 figures of the 2004 first convergence program. Subsequent modifications to the programs were disregarded decidedly in

Chart 2/a

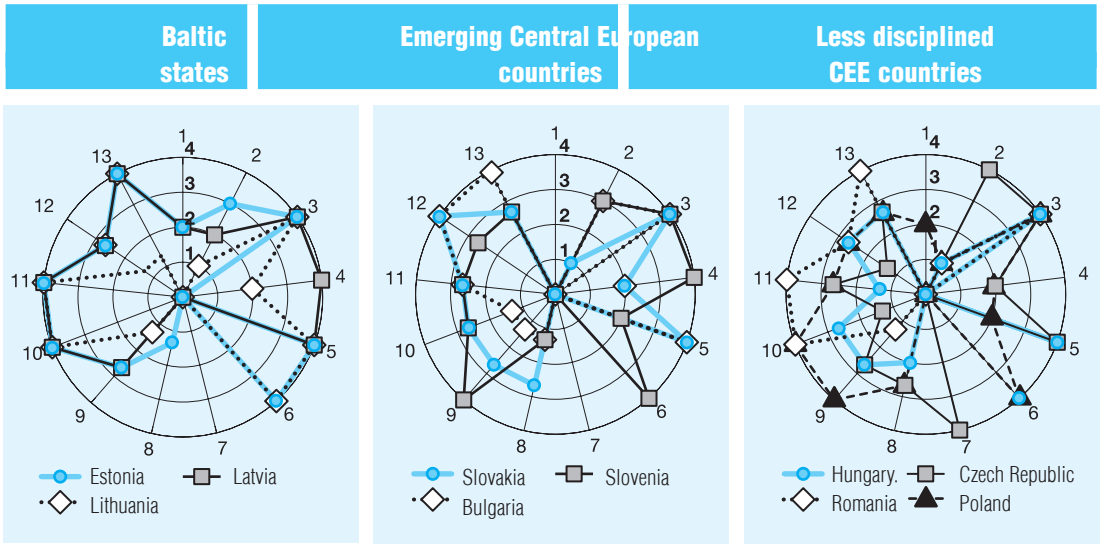
GOVERNMENT CENTRALISATION INDEX AND SUB-INDICES IN EU8+2 COUNTRIES



Source: Own calculations based on Table 7

Chart 2/b

BREAKDOWN OF GOVERNMENT CENTRALISATION INDEX IN EU8+2

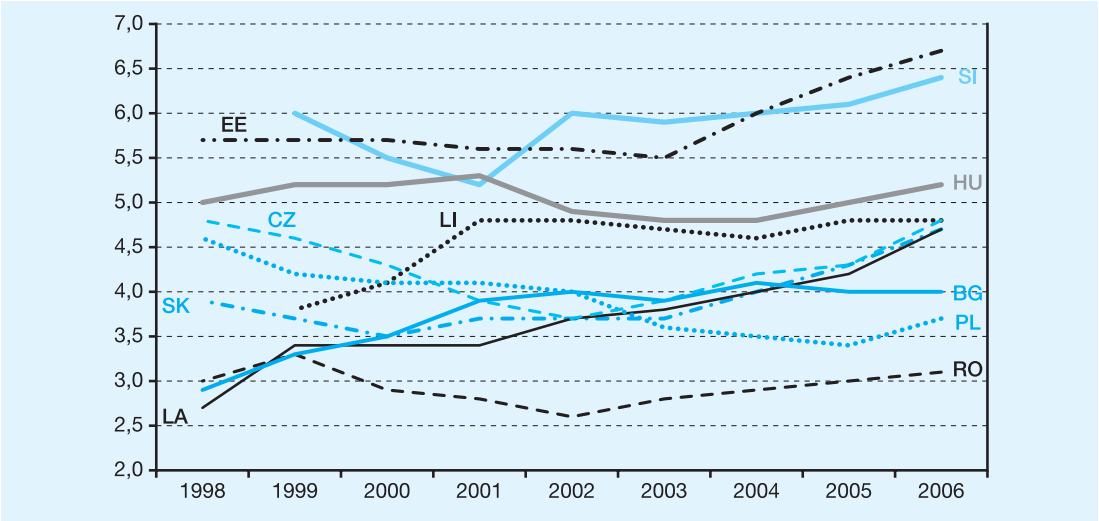


The thirteen axes represent the following sub-indices from 1 through 13: 1. existence of binding budget rule; 2. timetable of fiscal decisions; 3. budget planning; 4. persons responsible for reconciliation of disputes stemming from holes in the budget ; 5. the relative clout of the houses of legislation; 6. legislative limits to amend proposals submitted by the financial government; 7. voting schedule; 8. Clout of executive power and Parliament relative to one another; 9. Role of the President of the Republic in the budgeting process; 10. flexibility during execution; 11. reshuffle between expenditure chapters; 12. reallocation of unused funds to the next year; 13. proceedings in case of deviation from fiscal deficit target.

Source: Own calculations based on Table 7

Chart 3

CORRUPTION PERCEPTION INDEX
(10 the best, 0 the worst)



Source: Transparency International, http://www.transparency.org/policy_research/surveys_indices/cpi, Downloaded: 16 June 2007
Note: EU-15 registered between 7 and 9 in 2006.

order to establish how much the EU8+2 countries can make accurate planning and maintain fiscal discipline in the medium term. Positive deviations from targets – smaller actual deficit or bigger actual surplus – are to be interpreted as stricter fiscal discipline, representing better performance than projected. *(See Chart 4)*

The analysis of deviations clearly shows that Hungary's financial government is either very inept at planning or negligent in its objectives, which by the way was heavily criticised by the OECD (2006). The actual budget deficit came in at more than 4 per cent higher in terms of GDP on average in comparison to the annual deficit target, but in 2006 the gap increased to 6.5 per cent of GDP. Poland and Slovenia were the only other countries where underplanning wase detected, but their averages were much lower (1.4 per cent and 0.8 per cent, respectively). In Slovakia, budget performance was damaged by fiscal easing stemming for the government crisis in 2004. The other EU8+2 countries typically deviated from their respective deficit targets in the positive direction each year.

SUSTAINABILITY OF FISCAL POLICY

Sustainability simply means whether a given process, activity, or policy could be maintained either in a definite or indefinite future. When something is rated as unsustainable it represents an expectation that certain phenomena might halt or altogether extinguish mechanisms that have been working fine. Translated into budget policy, it means that if the (primary) budget balance records constant deficit, it will increase the portfolio of public debt. And due to an increasing debt ratio, government bonds representing the debt will become riskier in terms of redemption and interest payment. Therefore, the sustainability of budget policy is primarily subject to real interest rates and economic growth.

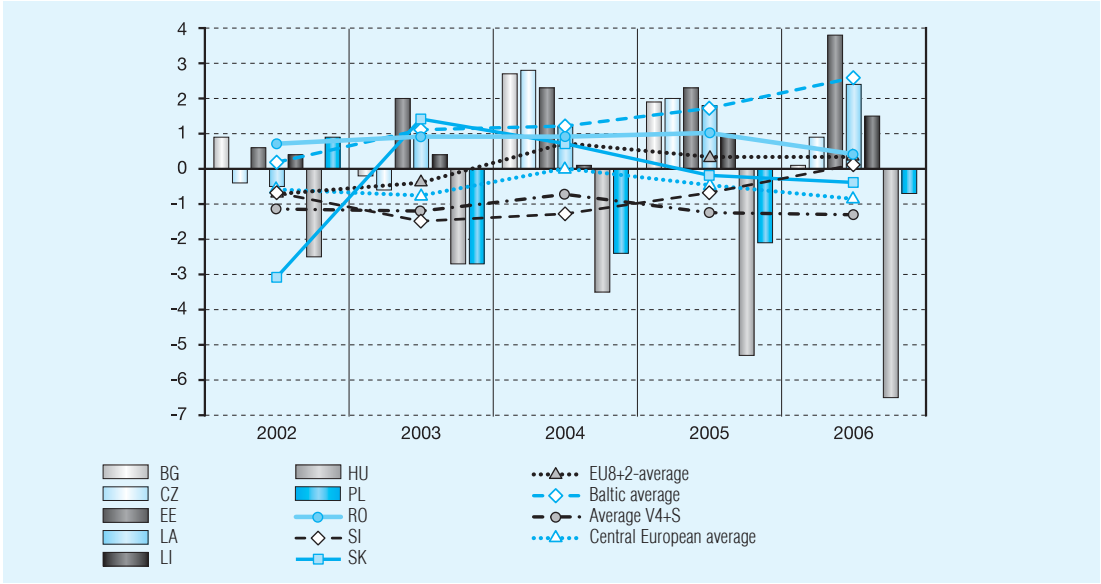
Croce and *Juan Ramon* (2003) designed an indicator for fiscal sustainability (IFS – indicator of fiscal sustainability) as follows:

$$IFS_t = (\beta - \lambda) = \frac{1 + r_t}{1 + \gamma_t^{real}} - \frac{ps_t - ps^*}{b_{t-1} - b^*},$$

Chart 4/a

EXTENT OF DEVIATION FROM DEFICIT TARGETS, 2002–2006

(as a percentage of GDP)

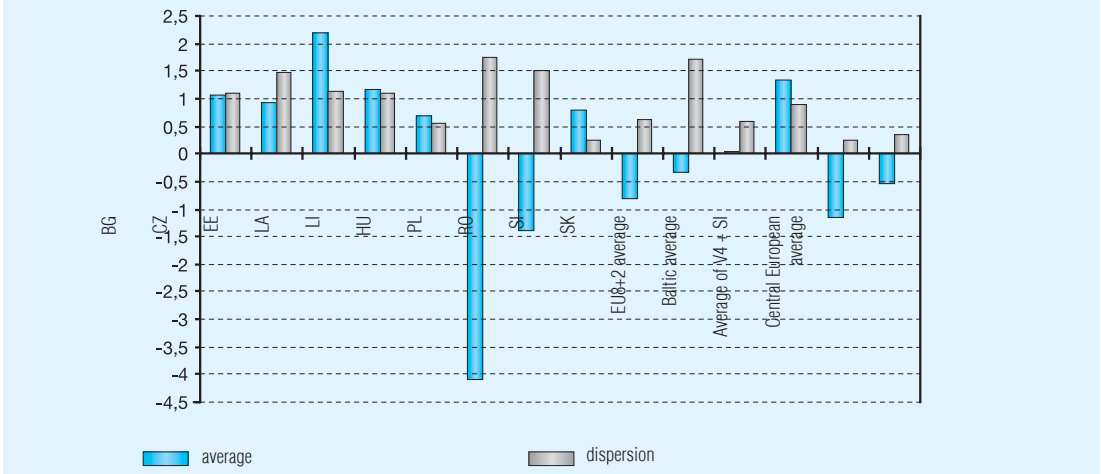


Source: author's own calculations based on PEPs, convergence programs, and EUROSTAT data

Chart 4/b

AVERAGE AND DISPERSION OF DEVIATION FROM FISCAL DEFICIT TARGETS, 2002–2006

(as a percentage of GDP)



Source: author's own calculations based on PEPs, convergence programs, and EUROSTAT data

where

ps_t represents the actual surplus of the primary balance,

ps^* represents the primary balance target,

b_{t-1} represents the legacy debt ratio,

b^* represents the target of total public debt,

r_t represents real interest rate,

γ_t^{real} represents real GDP growth.

The absolute value of IFS is to be compared to 1. When $|IFS| < 1$, then fiscal policy converges to sustainability.

Blanchard (1990) has developed a number of

indicators to define sustainability that are especially important because they analysis stability from the revenues side too. The primary gap indicator is represented by *(I.)*, comprised of the difference of structural primary balance ($\tilde{d}$) and the actual deficit in terms of GDP:

$$\tilde{d} = (\gamma_t - r_t)^* b_t,$$

$$\text{primary gap} = \tilde{d} - d_t = (\gamma_t - r_t)^* b_t - d_t,$$

If the difference is less than zero, then an excessive fiscal deficit destabilises fiscal policy.

The tax gap indicator *(II.)* assesses the difference between structural tax rates ($\tilde{\tau}$) and actual tax rates (τ_t):

$$\tilde{\tau} = g_t - (\gamma_t - r_t)b_t, \text{ and}$$

$$\text{tax gap } \tau_t - \tilde{\tau} = \tau_t + (\gamma_t - r_t)b_t - g_t$$

If the tax gap is less than zero, then the current tax revenues are insufficient to create balance.

Looking into the sustainability indices between 2000 and 2005, the following facts can be discerned of the fiscal sustainability of the EU8+2 countries:

❶ Based on their primary (fiscal) gaps, Bulgaria and Estonia had net extra reserves in the entire period surveyed, and Latvia in the last two years, which would have allowed fiscal easing. The Baltic States have been using this surplus for personal income tax reduction in the medium term (between 2006 and 2011), as mentioned in Chapter 8. Lithuania reached the state of sustainability in 2005 after steady improvement. In Slovakia, improvement in fiscal sustainability had been constant until 2004, but the fiscal easing launched as a consequence of the government change in 2004 again swept Slovakian public finance into unsustainability in 2005.

In the longer run the trends seen in Czech Republic and Slovenia have reflected promising and continuous improvement, still they exceeded their sustainable level of primary balance by around 2 per cent of GDP in 2005. Fluctuating between 4 per cent and 7 per cent of deficit in terms of GDP, Poland registered a steadily bad performance in the form of unsustainable primary deficits. In the period surveyed, Hungary reflects steady downslide in the territory of unsustainable primary balance, except for a one-off adjustment in 2004 whose impacts had been gone by 2005 and the overspending, accounting for 7.36 per cent of GDP, could no longer be financed by internal resources.

❷ The tax gap in fact confirms the results of the primary balance *(see Table 9)*. However, it also shows that neither EU8+2 country had sufficient government revenues to finance expenditures, so each had to finance their gaps by bonds or loans between 2000 and 2005. At the same time, Bulgaria, Estonia, Lithuania, Romania, and Slovakia reduced their income shortage at a considerable rate. The tax gap also decreased in the Czech Republic, Latvia, and Slovenia, if at a smaller extent. However, as far as Slovakia was concerned, the same statement was true for the tax as for the primary gap, namely the fact of risking sustainability is also evident in the development of the tax gap. Poland's permanent bad performance and Hungary's constant and deteriorating lack of sustainability were clearly reflected by tax gaps, as well.

❸ Setting the absolute value of IFS indicator against 1, values smaller than 1 are assessed as evidence of sustainability. The EU8+2 countries are compared here as a single unit because of two aspects. The first dimension is the target value of public debt *(b*)*, where the 60-percent ratio in terms of GDP as prescribed by the Maastricht criteria is one of the versions, and the other dimension is the 40-percent cap employed by countries applying the UK's liberal social model, earlier seen as an example to be followed. These are combined with the target value of the primary balance *(ps*)*. In the softer version, a break-even is satisfactory. In the

Table 9

BLANCHARD'S PRIMARY FISCAL GAP AND TAX GAP, EU8+2, 2000–2005

	$\tilde{d} = (\gamma_t - r_t)^* bt$, primary gap = *pg* = *dpermanens* – *dt*							$\tilde{\tau} = g_t - (\gamma_t - r_t)^* b_t$, tax gap = tg = τt – τpermanens						
		2000	2001	2002	2003	2004	2005		2000	2001	2002	2003	2004	2005
BG	$\tilde{d}$	–3.16	–0.43	–1.22	0.63	–1.55	–1.3	$\tilde{\tau}$	:	:	38	41.5	37.8	38.2
	pg	–2.66	–2.33	–1.32	1.53	–3.75	–3.2	*tg*	..	..	–7.78	–8.63	–3.15	–3.4
CZ	$\tilde{d}$	–0.02	–0.34	0.12	–0.15	–1.02	–1.44	$\tilde{\tau}$	41.8	44.2	46.4	47.2	43.4	42.6
	pg	3.68	5.36	6.92	6.45	1.88	2.06	*tg*	–7.88	–10.2	–11.6	–11.4	–6.78	–6.56
EE	$\tilde{d}$	–0.35	–0.26	–0.28	–0.18	–0.29	–0.43	$\tilde{\tau}$	36.2	34.8	35.3	35.1	33.9	32.8
	pg	–0.15	0.04	–0.68	–2.18	–2.59	–2.73	*tg*	–4.85	–4.64	–4.12	–3.52	–2.71	–2.07
LA	$\tilde{d}$	–0.53	–0.76	–0.48	–0.74	–1.43	–1.49	$\tilde{\tau}$	36.8	33.8	35.1	34.1	34.4	34
	pg	2.27	1.34	1.82	0.86	–0.43	–1.29	*tg*	–7.07	–5.14	–6.72	–5.36	–5.87	–5.11
LI	$\tilde{d}$	–1.11	–0.63	0.62	–1.03	–0.22	–0.8	$\tilde{\tau}$	38.0	36.2	35.4	32.2	33.2	32.8
	pg	2.09	1.47	2.12	0.27	1.28	–0.3	*tg*	–7.79	–7.47	–7.02	–3.97	–4.78	–4
HU	$\tilde{d}$	–0.99	–1.11	–0.17	2.44	–0.79	–0.44	$\tilde{\tau}$	45.5	46.2	51.1	51.5	48.1	49.5
	pg	1.91	2.29	8.03	9.64	5.71	7.36	*tg*	–6.91	–7.19	–12.5	–13	–9.61	–11.2
PL	$\tilde{d}$	2.73	3.11	2.12	–1.95	–0.48	0.06	$\tilde{\tau}$	43.8	46.9	46.3	42.7	42.1	43.4
	pg	4.23	6.81	5.32	4.35	5.22	4.36	*tg*	–11.2	–14.7	–13.6	–10.4	–10.8	–10.8
RO	$\tilde{d}$	–2.14	–1.23	–1.62	–0.17	–0.58	–0.88	$\tilde{\tau}$	38.5	37.6	38	33.4	32	32.8
	pg	2.46	2.07	0.38	1.33	0.92	0.52	*tg*	..	–9.77	–9.38	–5.33	–4.22	–4.02
SI	$\tilde{d}$	–0.6	0.12	–0.21	–0.35	–0.91	–0.44	$\tilde{\tau}$	47.5	49	47.8	47.7	46.5	46.6
	pg	3.2	4.22	2.29	2.45	1.39	1.06	*tg*	–8.6	–9.82	–8.19	–7.85	–6.79	–6.16
SK	$\tilde{d}$	–4.8	–0.75	0.11	–2.13	–3.01	–1.67	$\tilde{\tau}$	46.9	42.6	43.4	38.2	34.8	36.3
	pg	7.0	5.75	7.81	0.57	–0.61	1.13	*tg*	–13.9	–11.0	–11.4	–7.07	–4.99	–7.13

Source: author's own calculations

more stringent version, central budgets are required to save 1 per cent of GDP as the difference of primary revenues and expenditures. *(see Table 10)*

According to calculations based on the 60-percent Maastricht criteria, the public debts and fiscal policies of the Czech Republic, Estonia, Latvia, Lithuania, Romania, Slovenia, and Slovakia are definitely sustainable, and in this case those of Poland also seem sustainable in any primary balance target value, because the debt ratios of all nine countries were 15 to 45 per cent lower than the 60-percent cap in the period surveyed.

When setting a public debt ratio limit of 40 per cent, public finance systems of those countries had become sustainable by 2005 that had a surplus in primary balance and did not overshoot the limit of public debt (the three Baltic States, Slovenia, and Romania). The Czech Republic is the exception, because its medium-low public debt ratio, a medium-high real interest rate and economic growth offset the index. In the case of Bulgaria, the IFS index with the 40-percent requirement reflects considerable fluctuations in spite of a high primary surplus, thus sustainability should not be taken for granted out of caution. In the case of the index calculated with the 40-percent debt cap, Poland and Hungary are not worth breathing a word about them: They are definitely unsustainable.

❹ The fact that Hungary launched a fiscal program in 2006 to make adjustments for negative phenomenon cannot be disregarded. Before

writing off Hungary completely, it should be examined whether or not any expected positive impact materialised in sustainability indices in 2006 and 2007. *Table 11* shows the changes in the positions of Hungary's public finance, definitely reflecting an improving trend, although public debt will be rising until 2008. Of course, the decrease in the primary deficit has had a favourable impact on the IFS index as well as on the primary gap and the tax gap. Also, the gap between expenditures and revenues has been closing, also improving the tax gap. However, the improving index values also include the weight of decelerating economic growth and decreasing real interest rates.

FISCAL FLEXIBILITY IN THE COUNTRIES SURVEYED

A high fiscal flexibility on the one hand represents sensitivity to the economic environment,

Table 10

IFS INDEX, EU8+2, 2000–2005

With the Maastricht public debt criteria *(b*=60)* and the ideal debt ratio described by the British liberal model *(b*=40);* and with break-even primary balance *(ps*=0)* and a primary surplus target of 1 per cent in terms of GDP.

	b=60; ps*=0*						*b*=60; ps*=1*					
	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005
BG	..	..	..	1.23	1.25	1.11	..	..	..	1.06	1.17	1.07
CZ	0.94	0.87	0.84	0.82	0.91	0.87	0.92	0.85	0.81	0.79	0.88	0.84
EE	0.93	0.96	0.96	1.01	0.99	0.96	0.91	0.94	0.95	0.99	0.98	0.94
LA	0.92	0.93	0.93	0.93	0.90	0.89	0.900	0.91	0.91	0.91	0.88	0.87
LI	0.93	0.96	1.02	0.96	0.97	0.97	0.91	0.94	0.99	0.93	0.95	0.94
HU	–1.20	1.20	0.45	0.51	–0.10	–5.20	–0.40	0.98	0.32	0.34	–0.60	–6.80
PL	1.14	1.05	1.04	0.80	0.77	0.90	1.09	1.01	0.99	0.75	0.69	0.83
RO	..	..	0.91	1.00	0.97	0.94	..	..	0.92	0.97	0.94	0.91
SI	0.95	0.99	0.99	0.97	0.95	0.99	0.92	0.96	0.96	0.93	0.92	0.96
SK	0.27	0.79	0.62	0.94	0.92	0.88	0.19	0.69	0.53	0.88	0.86	0.83
	b=40; ps*=0*						*b*=40; ps*=1*					
	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005
BG	..	..	..	0.92	0.28	2.58	..	..	..	0.99	0.45	2.10
CZ	0.89	0.77	0.60	0.52	0.80	0.7	0.86	0.72	0.53	0.43	0.70	0.59
EE	0.92	0.96	0.97	1.04	1.02	0.98	0.89	0.93	0.94	1.01	0.99	0.96
LA	0.90	0.91	0.91	0.92	0.90	0.90	0.86	0.88	0.87	0.88	0.86	0.86
LI	0.91	0.95	1.01	0.96	0.96	0.97	0.85	0.89	0.96	0.90	0.90	0.93
HU	0.86	0.91	1.35	1.27	1.10	1.18	0.91	0.98	1.43	1.34	1.16	1.24
PL	–3.60	0.87	0.93	–16.00	1.40	1.26	–0.30	0.55	0.63	–21.00	1.54	1.44
RO	..	..	0.96	1.00	0.97	0.93	..	..	0.91	0.94	0.91	0.89
SI	0.91	0.97	0.98	0.92	0.93	1.00	7.39	9.04	0.89	0.83	0.84	0.91
SK	2.05	1.19	1.45	1.01	1.01	1.82	2.19	1.29	1.56	1.32	1.43	2.49

Source: author's own calculations

and can be regarded as a strength on the other hand, because budget items change mostly because of economic fluctuations and not because of structural faults or lobby interest. A purely economic-driven fiscal deficit means the long-term fiscal balance, purged from economic fluctuations, will be in equilibrium unless a global market collapse derails the economy from the growth path irreversibly.

International credit ratings agency Standard & Poor's has devised the *Fiscal Flexibility Index* (FFI), an indicator reflecting how much a budget is suitable to fend off negative global economy shocks, or in other words how quickly and efficiently it can respond to it by modifying tax revenues and expenditures. The FFI indicators comprises the two sub-indices *Expenditure Flexibility Index* (EFI) and *Revenue Flexibility Index* (RFI). (Standard & Poor's, 2007).

The EFI indicates how much fiscal decision-makers are able to control and trim expenditures at times when there is a high level of pressure on the budget, for instance in the case of international tax race. The EFI measures this ability by the composition of expenditures. Accordingly, flexibility is higher when public finance spending consists of expenditure classes as much as possible that could be reduced by discretional decisions within a relatively short time frame, namely one or two years. Such classes include investments or interim consumption. On the other hand, interest payment or the extent of subsidies, as stipulated by law, are hard to modify. The calculation of the EFI indicator goes as follows: A compressing factor is dedicated to each expenditure class, which shows the extent the expenditure item in question can be reduced at within one or two years. Then the factors are totalled, weighted with their rate within the total expenditures.

The RFI indicators measures the response flexibility of the financial government through revenues in case of deteriorating economic fundaments. The index is based on the fact that low tax rates and a low utility rate of taxable income provide a really large manoeuvring space to increase revenues substantially. The RFI index can be broken down into two additional indices: tax productivity and synthetic tax rate. Tax productivity defines the actual tax revenue compared to the potential tax revenue calculated on the basis of the taxable income, in other words the quotient of effective taxes and nominal taxes. Strangely, the RFI index represents flexibility when its value is low, or in other words the efficiency of tax collection and legislative environment have been bad. In a dynamic approach, however, Standard & Poor's (2007) says this ensures the potential of large-scale revenue increase if the regulatory and control environment are improved.

When analysing the FFI indices *(see Table 12)*, it is discernible that among the EU8+2 countries Estonia, Lithuania, and the Czech Republic are able to respond to economic shocks from fiscal aspects the most efficiently, which is owing to their expenditure struc-

Table 11

HUNGARY'S SUSTAINABILITY INDICES, 2006, 2007

	Primary gap	Tax gap	IFS *(b*=60%;ps*=0%)*	IFS *(b*=60%;ps*=1%)*
2005	7.36	–11.2	–5.2	–6.8
2006	7.52	–9.7	4.13	4.71
2007	6.24	–6.24	1.32	1.45

Source: author's own calculations[2]; data source: Hungary's convergence program, GKI [GKI Economic Research Institution Co. Ltd.] forecasts

tures mostly, but their revenues side is not too inflexible, either, earning them a place among the best in Europe (Switzerland, Cyprus, Ireland, and Malta). In the Baltic States, Latvia did not make it to this group only because its flexible expenditure structure is undermined by the inflexibility seen in the revenues side. As for the European average, each EU8+2 country is either at the top or in the middle of the pack. This, however, in many cases is due less to their own flexibility than to the inflexibility detected in countries that follow the continental and Scandinavian social model – as each and every one of them is less flexible from a fiscal point of view than any other European country.

Analysing the EFI and RFI indices deeper, Slovenia, Hungary, and Poland are slightly inflexible in respect of both expenditures and revenues. Slovakia, however, is slightly inflexible regarding expenditures but slightly flexible in terms of revenues. The revenue flexibility of Central European countries is at around the European average. The tax rates of Slovenia and Hungary are above the European average. However, the tax productivity of each Central European country, with the exception of the Czech Republic, is below the European average, mostly due to deficiencies in their tax control systems. This way, however, fiscal consolidation will have some manoeuvring space by improving the efficiency of tax control. Revenue flexibility in the Baltic States is also side by side with the European average because of low tax productivity generated by allowances granted to foreign investors.

The Baltic States have a high inflexibility ratio in expenditures because of a lower level of spending and a large demand for investments triggered by their underdeveloped infrastruc-

Table 12

STANDARD & POOR'S FISCAL FLEXIBILITY INDICES IN THE EU8+2 COUNTRIES AND IN DEVELOPED EUROPEAN COUNTRIES BASED ON THEIR EUROPEAN SOCIAL MODEL CLASSIFICATION

	FFI	EFI	RFI
Bulgaria	0.6	1.3	–0.3
Czech Republic	1.2	1.8	0.3
Estonia	0.0	–0.2	0.1
Poland			
Latvia	0.4	0.7	–0.1
Lithuania	1.2	1.3	0.6
Hungary	–0.3	–0.2	–0.2
Romania	..	..	..
Slovakia	0.1	–0.4	0.5
Slovenia	–0.2	–0.1	–0.1
Groups developed countries based on Social European Models			
Scandinavia	–1.1	–0.3	–1.5
Liberal	0.8	0.7	0.6
Continental	–1.4	–1.5	–0.8
Mediterranea	0.7	0.1	1.0
EU8+2-groups			
Baltic	0.9	1.3	3.0
Central Europe	0.0	0.1	0.0

Table 13

TAX WEDGE CALCULATIONS FOR THE EU8+2 COUNTRIES AS A PERCENTAGE OF GDP

Tax wedge = total taxes / total income

		1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	átlag	szórás
BG	indirect tax wedge	12.80	13.47	12.73	13.28	13.21	13.82	14.23	14.53	16.02	17.73	18.59	19.31		
	PIT wedge	11.83	12.82	11.16	9.89	9.81	9.38	8.07	6.81	6.80	6.32	6.02	5.63		
	capital tax	0.20	0.15	<0.1	0.12	0.12	0.12	0.14	0.13	0.20	0.22	0.28	0.44		
	total tax wedge	24.82	26.44	23.88	23.29	23.14	23.32	22.44	21.47	23.02	24.27	24.89	25.38	23.86	1.37
CZ	indirect tax wedge	12.30	12.10	11.53	10.96	11.55	11.32	10.97	10.82	11.08	11.75	11.58	10.99		
	PIT wedge	9.56	8.34	8.84	8.30	8.46	8.29	8.79	9.08	9.60	9.74	9.25	8.77		
	capital tax	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
	total tax wedge	21.86	20.44	20.37	19.26	20.01	19.61	19.76	19.91	20.68	21.49	20.83	19.76	20.33	0.78
EE	indirect tax wedge	13.90	13.99	14.63	12.81	12.17	12.40	12.15	12.54	12.41	12.22	13.18	13.42		
	PIT wedge	10.93	9.54	9.60	10.49	10.07	7.84	7.29	7.58	8.26	8.21	7.07	7.24		
	capital tax	<0.1	<0.1	<0.1	<0.1	–	:	:	:	:	:	:	–		
	total tax wedge	24.83	23.53	24.23	23.30	22.24	20.23	19.43	20.11	20.67	20.42	20.24	20.66	21.66	1.86
HU	indirect tax wedge	17.90	17.08	15.55	15.78	16.28	16.09	15.35	14.95	15.61	16.08	15.50	15.09		
	PIT wedge	9.38	9.38	9.10	9.08	9.52	9.52	10.03	10.07	9.45	8.98	9.01	9.45		
	capital tax	:	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
	total tax wedge	27.28	26.46	24.65	24.85	25.81	25.61	25.37	25.02	25.06	25.06	24.51	24.54	25.35	0.83
LA	indirect tax wedge	14.10	13.01	13.87	14.98	13.68	12.33	11.78	11.24	12.09	11.74	12.43	12.74		
	PIT wedge	7.12	6.97	7.55	7.98	7.67	7.28	7.55	7.70	7.51	7.87	7.89	8.42		
	capital tax	:	:	:	:	:	:	:	:	:	:	:	:		
	total tax wedge	21.22	19.98	21.42	22.96	21.35	19.61	19.33	18.94	19.60	19.61	20.32	21.16	20.46	1.17
LI	indirect tax wedge	12.40	11.85	13.69	13.87	13.72	12.60	12.22	12.44	11.75	11.08	11.17	11.21		
	PIT wedge	8.68	8.20	8.85	9.04	9.17	8.46	7.83	7.50	7.99	8.71	9.11	9.68		
	capital tax	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
	total tax wedge	21.08	20.05	22.54	22.91	22.89	21.06	20.05	19.94	19.74	19.79	20.28	20.90	20.93	1.21

a 13. táblázat folytatása a következő oldalon

TAX WEDGE CALCULATIONS FOR THE EU8+2 COUNTRIES AS A PERCENTAGE OF GDP

Tax wedge = total taxes / total income

		1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	átlag	szórás
PL	indirect tax wedge	14.20	14.43	13.86	13.08	13.59	12.62	12.50	13.20	13.17	12.87	13.60	13.90		
	PIT wedge	11.73	11.33	11.05	10.84	7.71	7.16	6.64	6.92	6.58	6.37	6.96	7.51		
	capital tax	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
	total tax wedge	25.93	25.76	24.91	23.92	21.30	19.78	19.14	20.13	19.74	19.24	20.56	21.41	21.82	2.59
RO	indirect tax wedge	:	:	:	13.50	14.85	16.36	11.37	11.70	12.50	11.82	12.93	12.16		
	PIT wedge	:	:	:	8.10	6.53	6.63	6.09	5.67	5.68	6.30	5.32	5.19		
	capital tax	:	:	:	:	:	:	–	–	–	–	–	–	*	*
	total tax wedge				21.60	21.37	22.99	17.46	17.36	18.19	18.12	18.25	17.35	19.19	2.17
SK	indirect tax wedge	15.10	14.85	13.91	13.12	13.03	12.78	11.52	12.01	12.16	12.32	12.68	11.48		
	PIT wedge	11.48	10.49	9.99	9.07	8.82	7.64	7.30	7.11	6.99	5.97	5.94	5.90		
	capital tax	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
	total tax wedge	26.58	25.34	23.90	22.19	21.86	20.42	18.82	19.11	19.15	18.29	18.62	17.38	20.97	3.00
SI	indirect tax wedge	:	:	:	:	:	16.29	16.08	16.41	16.57	16.21	16.10	15.58		
	PIT wedge	:	:	:	:	:	7.54	7.76	8.04	8.24	8.48	9.05	9.35		
	capital tax	:	:	:	:	:	<0.1	0.11	<0.1	<0.1	<0.1	<0.1	<0.1	**	**
	total tax wedge						23.84	23.95	24.45	24.81	24.69	25.15	24.93	24.55	0.49

Source: EUROSTAT

http://epp.eurostat.ec.europa.eu/portal/page?_pageid=2373,47631312,2373_58674404&_dad=portal&_schema=PORTAL

* calculated from data released between 1998 and 2006

** calculated from data released between 1998 and 2006

Table 14

AGGREGATE RANKING OF THE FISCAL POSITIONS OF THE EU8+2 COUNTRIES

	Budget structure**				Institutional efficiency				Fiscal sustainability				Fiscal flexibilitiy	Financial efficiency of budget	Overall ranking	
	S_1	S_2	S_3	S_i	I_1	I_2	I_3	I_i	F_1	F_2	F_3	F_i	FFI	Tax wedge	Average	Rank
				3				3				3	ranking	ranking		
Bulgaria	5.67	5.75	2	4.47	8	8	3	6.33	1	2	9	4	6*	8	5.76	7
Czech Republic	5.33	9.25	7.5	7.36	5	4	4	4.33	7	7	1	5	10	2	5.738	6
Estonia	1.33	5	1	2.44	1	1	1	1	2	1	6	3	4	6	3.288	1
Poland	9	5	8	7.33	3	9	9	7	9	9	4	7.33	5	7	6.732	9
Latvia	3.33	3.25	3	3.19	2	6	2	3.33	3	5	3	3.67	7	3	3.904	2
Lithuania	2.33	5.25	4.5	4.03	7	4	6	5.67	4	3	7	4.67	2	4	4.074	4
Hungary	9.67	5	10	8.22	9	3	10	7.33	10	10	10	10	9	10	8.91	10
Romania	3.33	4.5	6	4.61	10	10	5	8.33	5	4	5	4.67	1*	1	3.922	3
Slovenia	8.33	6.5	4	6.28	4	1	8	4.33	6	6	8	6.67	7	9	6.656	8
Slovakia	6.33	5.5	8	6.61	6	6	7	6.33	7	8	2	5.67	3	5	5.322	5

Source: author's own calculations

* FFI data were not available for Romania and Bulgaria. they are classified by the author's own estimate based on their manoeuvring space in the structure of revenues and expenditures.

** See breakdown in Chart 15

Table 15

BREAKDOWN OF THE FISCAL STRUCTURE SUB-INDEX

	s11	s12	s13	S1	s21	s22	s23	s24	S2	s31	s32	S3	(S1+S2+S3)/3
BG	4	7	6	5.67	7	1	8	7	5.75	2	2	2	4.47
CZ	7	4	5	5.33	8	10	9	10	9.25	8	7	7.5	7.36
EE	2	1	1	1.33	5	4	10	1	5	1	1	1	2.44
PL	8	10	9	9.00	6	8	1	5	5	7	9	8	7.33
LA	5	2	3	3.33	3	3	4	3	3.25	3	3	3	3.19
LI	3	2	2	2.33	2	6	7	6	5.25	4	5	4.5	4.03
HU	10	9	10	9.67	9	7	2	2	5	10	10	10	8.22
RO	1	5	4	3.33	1	2	6	9	4.5	6	6	6	4.61
SI	9	8	8	8.33	10	9	3	4	6.5	4	4	4	6.28
SK	6	6	7	6.33	4	5	5	8	5.5	9	7	8	6.61

Forrás: saját számítás

ture. Among Central European countries the expenditure structure of the Czech Republic is extremely flexible because of a high ratio of government investments, while the expenditure flexibility of the other countries is greatly damaged by excessive debt obligations or social expenditures.

FINANCIAL EFFICIENCY OF BUDGETS IN THE EU8+2 COUNTRIES

Tax wedge calculations indicate clearly that the governments in Bulgaria, Slovenia, and Hungary need outstandingly high tax burden to finance their responsibilities. The lowest tax wedge figure is seen in Romania and Slovakia, having fallen since 2000 on the back of the implementation of a flat-rate tax system and dynamic FDI influx. Poland had had a declining trend until 2004, but the government change then meant a different course in tax policy, too. When the average and dispersion of these values are analysed, it becomes clear that Slovenia boasts the most stable extent of tax revenue demand. The Baltic States fluctuate steadily around 20 per cent, and reflected a slightly declining trend between 1999 and 2004. Due to tax cut plans, this trend is expected to continue in 2008/2009 for the medium term. Another common feature in the Baltic States: In the period surveyed, a constant shift was seen between major tax categories at the expense of personal income tax. The same is true for Hungary and Slovenia, as well. However, the considerable dispersion in Slovakia and Romania should be regarded as a positive signal, because it has been the result of a tax reform to improve efficiency (by trimming the tax wedge by 8 to 10 percentage points).

EVALUATION OF THE AGGREGATE PERFORMANCE OF THE EU8+2 FISCAL POLICIES

The ranking in the fiscal race of the EU8+2 countries came in as seen in *Table 13.* Overall, Estonia pursues the most efficient fiscal policy, showing some lag in respect of fiscal flexibility and financial efficiency only. Hungary and Poland have the worst results, taking the lowermost spots in all five categories. The leaderboard provides evidence also in the EU8+2 group that the British liberal model could lead

to a more efficient set-up than the continental social model. Having implemented the euro first in this group, Slovenia also came in the rear third. In her case, it was the lack of space for fiscal manoeuvring that really pulled down her performance. In respect of the structural composition of the budget, institutional efficiency, and sustainability, Slovenia takes a spot in the upper half in the ranking of the EU8+2 countries.

Notes

1 ❶To complement the 16-percent corporate tax, a 4-percent extra tax has been implemented, which is calculated on a slightly different taxable income. ❷ When self-employed entities choose Personal Income Tax, they will pay more in taxes because of stricter rules of tax allowance and tax write-offs, if they choose EVA [Simplified Enterprise Tax], then they pay more because of an increase in EVA to 25 per cent from 15 per cent, and if they choose to pay their taxes as corporations do, they'll pay more because of the implementation of the extra corporate tax. ❸Interest tax and stock market gains tax have increased from 0 to 20 per cent, affecting household savings. ❹Luxury tax has been introduced for high-value real estate, but the actual impact of this tax cannot yet be regarded as considerable because of various tricks applied to hide wealth.

2 In line with the principle of caution, real interest rate for 2007 was calculated from an 8.5-percent nominal lending rate with 9 per cent in 2006 taken as the starting point. [pst : 2006 – (-5.3)%, 2007 – (-2.4)%; bt-1 and bt : 2005 – 61.7%, 2006 – 67.5%, 2007 – 70.1%; t : 2006 – 3.9%, 2007 – 2.2%; inflation: 2006 – 4%; 2007 – 7%; dt : 2006 – (-10.1)%, 2007 – (-6.8)%; gt : 2006 – 52.5%, 2007 – 49.9%; t : 2006 – 43.4%, 2007 – 43.1%]

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