Fiscal pressures on the road to EMU

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<u>**Abstract**</u>

This paper discusses the main fiscal pressures related to EU accession that might arise on the road to EMU in the transition economies, which joined the EU in May 2004. More than half of them run excessive fiscal deficits being partly a legacy of an early transition period, partly – a consequence of additional accession-related costs. The structure of the paper is the following: the first part discusses the current fiscal situation stressing, among others, the pressures coming from old-age related expenditures. The second part concentrates on fiscal pressures that stem directly from the fiscal obligations arising from EU membership and presents the infrastructure investment needs which are necessary in order to achieve real convergence with OMS. The last part concludes.

Keywords: European Union, enlargement, fiscal policy, Maastricht criteria, infrastructure expenditures.

1. Current fiscal situation.

Due to convergence of the national statistics to the EU standards, just before the EU accession there was one-off effect of 2003, when the fiscal deficits of Czech Republic, Malta and Cyprus almost doubled. However, these adjustments were temporary and expired in 2004. Presently, the situation in public finances differs widely across NMS. Estonia is a special case with budgetary surpluses and extremely low public debt. Relatively low budgetary imbalances are observed in two other Baltic countries: Latvia and Lithuania. On the other hand there are countries with lax budgetary policies such as Hungary, Malta and Slovakia, and to lesser extent Czech Republic and Poland – in 2005 all of them are supposed to breach the limit of 3% of GDP set for the general government balance by the convergence criteria. It is expected that Hungary, Czech Republic and Poland will not be able to limit the general government deficit to the level below 3% of GDP within next two years. The reasons behind this are structural as the cyclical component of fiscal imbalances is limited. The biggest deterioration of fiscal position was observed in Hungary. The main reason behind was an *Eurostat* decision on statistical reclassification of the PPP arrangements concerning the motorway construction, which worsened the expected 2005 deficit by almost 2% of GDP and, and on uniform handling of the one-month additional salary of the public sector, which revised the ex post deficit figures for 2004 by 0.9% of GDP[1].

Persistent fiscal imbalances lead to accumulation of public debt. It is not surprising that countries with lack of budgetary discipline such as Hungary and Malta record the general government debt over 60% in 2005. Cyprus is also not fulfilling the convergence criteria referring to public debt, however, in this case the basic reason is high initial level.

Table 1: Net lending/borrowing of general government (excessive deficit procedure) - percentage of GDP at market prices

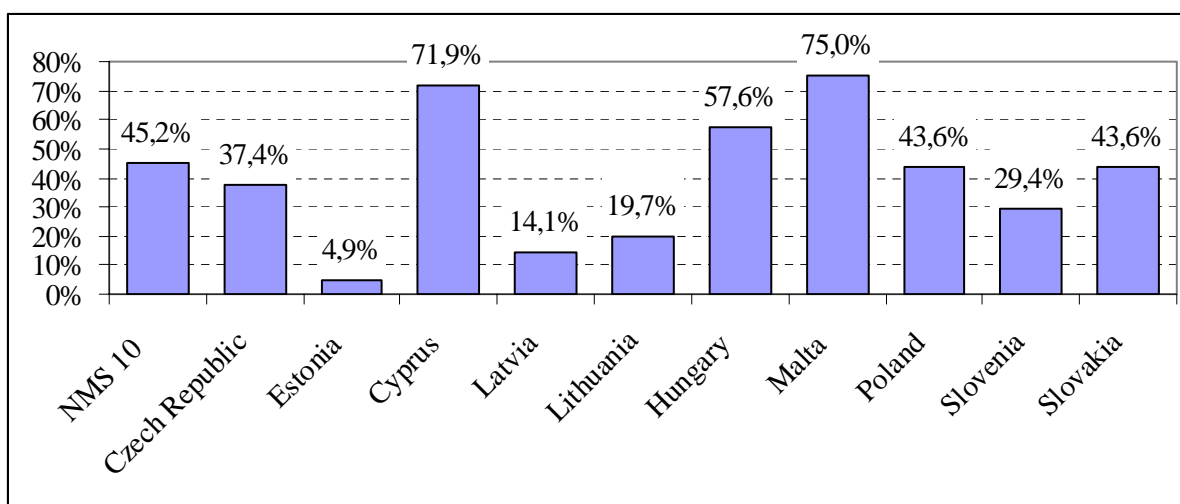|	CZ	CY	EE	HU	LV	LT	MT	PL	SK	SL
2000	-3.7	-2.4	-0.6	-3	-2.8	-3.5	-6.3	-1.6	-12.3	-3.5
2001	-5.9	-2.3	0.3	-3.5	-2.1	-2	-6.6	-3.7	-6.6	-3.9
2002	-6.8	-4.5	1.5	-8.5	-2.3	-1.4	-5.8	-3.3	-7.8	-2.7
2003	-12.5	-6.3	2.6	-6.5	-1.2	-1.2	-10.4	-4.8	-3.8	-2.7
2004	-3	-4.1	1.7	-5.4	-0.9	-1.4	-5.1	-3.9	-3.1	-2.1
2005f	-3.2	-2.8	1.1	-6.1	-1.2	-2	-4.2	-3.6	-4.1	-1.7
2006f	-3.7	-2.8	0.6	-6.7	-1.5	-1.8	-3	-3.6	-3	-1.9
2007f	-3.3	-2.4	0.4	-6.9	-1.5	-1.6	-2.5	-3.4	-2.5	-1.6

Source: European Commission, European Economy No 5/2005, Economic Forecasts Autumn 2005

Note: Second pillar pension funds are included in the general government sector for Hungary, Poland and Slovakia.

f = forecast

Graph 1: Public debt in NMS, in percentage of GDP (in year 2004)

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[1] Updated Convergence Programme of Hungary 2005-2008

Bar chart showing: NMS 10 45,2%; Czech Republic 37,4%; Estonia 4,9%; Cyprus 71,9%; Latvia 14,1%; Lithuania 19,7%; Hungary 57,6%; Malta 75,0%; Poland 43,6%; Slovenia 29,4%; Slovakia 43,6%

Source:European Commission, Public Finances in EMU 2005,

To assess the stability of the countries' debt ratio, a very simple simulation was done. Using data from European Commission (2005) we have calculated the level of public debt to GDP in year 2010 under two scenarios: in the first scenario, the variables influencing the debt to GDP ratio (i.e. primary balance, GDP growth rate and implicit interest on debt) were kept constant over the years 2006-1010 on their 2004 level and in the second scenario they were kept constant on their 2005 level[2]. These simple simulations show, that if the countries keep their current state of public finances until 2010, this will lead to an increase in the debt ratio in all countries, except for Estonia and Latvia (in case of Latvia only in the first scenario). Hungary's debt will significantly exceed 60% of GDP and Poland's debt will come very close to this value.

Table 2. Public debt in NMS; projected values in 2010, percentage of GDP

	2004	2005	Scenario I, year 2010	Scenario II, year 2010
Czech Republic	37.4	36.4	44.0	51.6
Estonia	4.9	4.3	0.0	0.0
Cyprus	71.9	69.1	76.8	70.1
Latvia	14.1	14.0	12.3	16.9
Lithuania	19.7	21.2	26.8	26.3
Hungary	57.6	57.8	67.3	66.0
Malta	75.0	76.4	98.8	90.3
Poland	43.6	46.8	59.1	58.5
Slovenia	29.4	30.2	32.7	35.7
Slovakia	43.6	44.2	48.9	52.3

Source: European Commission, Public Finances in EMU 2005, own calculations

Fiscal troubles of the NMS have their roots in the high budget expenditures, particularly those related to various social commitments (see **Table 3**). In few cases like

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[2] All the details of the projection are reported in the Appendix.

Hungary and Poland interest payments, i.e. costs of servicing the already accumulated public debt have also led to narrowing a room of fiscal maneuver.

Table 3: General government expenditure in NMS-8, 2002-2005, percentage of GDP

Country	Year	Collective consumption	Social benefits in kind	Social transfers other than in kind	Interests payments	Subsidies	Other current expenditure	Total current expenditure	Gross fixed capital formation	Other capital expenditure	Total expenditure	Change in total expenditure 2002-2005
CZ	2002	10.9	11.4	12.5	1.3	2.8	5.2	44.1	4.4	5.4	52.3	-3.1
	2003	10	10.5	12.6	1.3	2.9	13.4	50.7	4.2	4.5	57.9	
	2004	9.8	10.3	12.6	1.3	3	14.4	51.4	4.2	-3.3	50.9	
	2005	9.6	10.1	12.5	1.3	3.1	13.5	50.1	4.2	-3.9	49.2	
EE	2002	8.6	9.5	13	0.3	1.1	0.5	33	4.9	1.4	37.9	4.3
	2003	9	9.5	13.8	0.3	1.2	0.6	34.4	4.7	1.5	38.6	
	2004	9.5	9.6	14.6	0.3	1.4	1.8	37.2	4.5	1.6	42.8	
	2005	8.5	9.3	14.4	0.3	1.4	2.6	36.5	4.3	1.6	42.2	
HU	2002	10.8	12.6	13.7	4.2	1.8	1.9	45	4.9	4.4	52.6	-3.2
	2003	11.3	13.3	12.4	4.1	2	1.9	45	3.1	2.1	50.2	
	2004	11.6	13.1	13.4	4	1.5	1.9	45.5	4.5	2	52	
	2005	11.3	12.7	13.3	3.9	1.5	1.8	44.5	4.6	2	51.1	
PL	2002	9.4	8.6	17.7	3.7	0.5	0.9	40.8	3.5	0	44.9	0.8
	2003	9.2	8.3	17.4	3.1	0.5	3.1	41.6	3.5	0	45.1	
	2004	9	8.2	17.3	3.2	0.1	4.7	42.5	3.5	0.9	46.8	
	2005	8.8	7.9	17.5	3.3	0.2	3.5	41.2	3.7	0.8	45.7	
LT	2002	7.9	11.8	9.5	1.6	0.8	0.1	31.7	2.9	0.5	35	2.3
	2003	8.1	11.1	9.4	1.3	0.8	0.3	31	2.9	0.7	34.6	
	2004	7.7	12.6	10.1	1.4	2.1	1.6	35.5	3.2	0.4	37.4	
	2005	7.8	12.6	9.9	1.3	2.2	1.6	35.4	3.2	0.3	37.3	
LV	2002	9.6	9.7	12.1	1	0.7	3.6	36.7	3.3	2.8	44.9	-4.5
	2003	9.2	9.4	11.8	0.9	0.8	6.4	38.5	2.4	2.7	43.3	
	2004	9.1	9.2	11	0.8	0.8	7.9	38.8	2.3	2.6	41.8	
	2005	9	9.1	10.4	0.8	0.7	9.1	39.1	2.1	2.5	40.4	
SK	2002	11.3	8.8	11.8	3.6	1.6	10.6	47.7	3.3	2.2	50.9	-3.9
	2003	11.2	8.8	11.4	2.4	1.5	9.5	44.8	3	4.7	52.7	
	2004	10.9	8.6	11.1	2.7	1.4	4.3	39	2.7	4.4	46.1	
	2005	10.7	8.4	10.8	2.9	1.4	6.1	40.3	2.5	4.2	47	

Note: Table is based on ESA 95 definitions which do not necessarily correspond with the NMS Former definitions.
Source: EE (2004)

1.1. Fiscal pressure from age-related expenditures

With the population aging the pension and health care expenditure will exert additional pressure for the budget. Therefore some NMS have already undertaken extensive pension reforms in order to provide long term sustainability of public finances. Poland, Hungary, Latvia, Estonia, Lithuania and most recently Slovakia have introduced a second pillar fuelled

with part of contributions. With the exception of Lithuania, the participation is mandatory for at least all young workers[3]. Fiscal effects of the pension reforms for long-term sustainability of public finances are analyzed in the convergence programs of NMS and their updates (see: Table 4). The projections confirm that in Estonia, Poland and Latvia the share of pension spending in GDP is expected to decline despite rising old-age dependency ratios. The moderate increase in pension spending is expected for Lithuania and Hungary, and relatively stable level for Slovakia. In countries where reforming efforts of the pension system were limited and the fully funded pillar was not introduced, the pension spending are projected to increase: by about 7% of GDP in Slovenia, 5% of GDP in Czech Republic and over 3% of GDP in Cyprus. The exception is Malta, where even with the lack of deep pension reform in the long run perspective these expenditures will fall mainly due to favorable demographic trends (for example, relatively high fertility rate). These conclusions hold for the perspective of 2050. If the pensions' expenditures are examined in the next 15 years, even in these three countries the share of public expenditures in GDP will not grow significantly. Slovenia and Czech Republic will also experience the most significant growth in health care related expenditures.

The efforts to ensure long term sustainability of public finances have been weakened by the political decisions. The example may be reversal of the pension indexation formula from inflation to wage (Poland and Slovenia) or introduction of special retirement privileges for miners in the way excluding them from the existing pension system (Poland).

Table 4: Long-term sustainability of public finances – forecast of the age related expenditures, percentage of GDP

	PENSIONS			HEALTH CARE		
	2005	2020	2050	2005	2020	2050
Cyprus	7.1	7.3	10.6	3.2	2.5	4.3
Czech R.	8.3	8.1	13.5	6.6	6.9	9.1
Estonia	7.4	5.1	3.7	4.8	4.6	4.6
Hungary	9.8	9.5	11.1	n.a.	n.a.	n.a.
Latvia	6.4	4.9	5.6	5.2	5.4	5.9
Lithuania	6.8	7.2	9.0	4.1	4.4	5.0
Malta	8.1	9.7	4.8	n.a.	n.a.	n.a.
Poland	7.9	4.5	n.a.	4.6	3.5	3.5
Slovakia	7.2	5.3	7.0	4.8	5.1	6.1
Slovenia	11.2	12.5	18.5	6.7	7.3	9.6

Source: Updated Convergence Programmes 2005-2006, for Poland and Estonia: update of 2004-2005.

Despite positive long term effects of the pension reforms introducing a multi-pillar system, in the short and medium term, the transfer of contributions into the pension funds, instead the state PAYG system causes additional budget deficit. Admitting these effects the *Eurostat* have granted the transitory period, when mandatory, fully funded pension funds are classified inside the general government sector. Consideration to the cost of the reform will be given for the initial five years after a country has introduced a mandatory fully funded system or five years after 2004 for countries that have already introduced such system. The treatment will be

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[3] Sustainability of the Pension Systems in the EU8, World Bank EU8 Quarterly Economic Report, October 2005

regressive, i.e. during a period of five years consideration will be given to 100, 80, 60, 40 and 20% of the net cost of the pension reform[4]. When the second pillar of the pension funds is excluded from the general government sector it would further increase budget deficit for Hungary, Poland and Slovakia are presented in Table 1. Therefore, despite positive long term effects, pension reforms may cause additional fiscal burden in the period of euro introduction.

2. Fiscal costs of the EU accession.

Fiscal problems evolved from the EU accession seem to contradict the popular view held in the OMS, that enlargement via the EU transfers represents an important injection into the economy of the NMS and therefore would involve substantial positive net fiscal balance of the NMS. However, one must distinguish between the impact of accession on a country's net financial position (balance of payments consequences) and its net fiscal position. In order to estimate the net fiscal impact of accession, the net EU transfers to the government sector are considered and, in addition the accession-related budget expenditures, due to the costs associated with the implementation of the *acquis communautaire* are estimated.

EU membership has brought additional fiscal pressures to bear (other things being equal) on the NMS and could have significant budgetary implications. This stems in part from the obligations to contribute to the EU budget, co-finance projects financed from EU structural funds, pre-finance some EU transfers during the first period of membership and the adoption of the *acquis* in some costly areas, such as environmental protection, infrastructure, border control and public administration.

In this report we omit project co-financing obligations from public sources, because the *ex ante* size of EU payments is still unknown and strictly depends on funds' absorption rate. It is one of the reasons for underestimation of the actual negative fiscal impact of EU accession presented in this report.

2.1. The impact of net EU transfers on public finances

It is not easy to calculate the share of total transfers to the general government sector (i.e. state budget, regions, municipalities and extra-budgetary funds) because not every transfer from the EU budget is recorded in general government accounts. Some funds go directly to private beneficiaries (farmers, enterprises, schools, NGOs, and others), where the government functions only as a 'postman' (Hallet, 2004). The state budgets in the NMS are directly fuelled by the special cash flow facility fund and the temporary budgetary compensation (only in Cyprus, Malta, Czech Republic and Slovenia). These are special lump sum payments designed to resolve the problem of cash shortfalls in some NMS. Most probably, the Cohesion Fund (CF) transfers (mainly financing of environmental protection and transport infrastructure) will go to general government accounts as well as additional expenditure and "internal actions" transfers used for administration, nuclear safety, institution building and the Schengen facility fund. Only a part of the Structural Fund transfers (SF) will be addressed to general government as the final beneficiary. And finally, only the part of a Common Agriculture Policy (CAP) – the transfers related to rural development programs are channeled through the public finances.

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[4] ECOFIN decision of 22-23 March 2005

The remaining EU transfers (like direct payments to farmers under the CAP, some part of SF, pre-accession assistance) are excluded from our analysis because they have been mostly directed to the private sector omitting the general government accounts.

 Total state budgetary transfers (budgetary compensation and cash facility fund) constitute only for approximately 20% of total EU transfers directed to the NMS and the whole membership contribution fee and the great majority of all other accession-related expenditures are being paid out of the public sources (mainly from the national budgets)– this is the reason for new arisen fiscal problems for the NMS.

Membership contributions to the EU budget are one of the most important, but also predictable, fiscal costs of accession. Membership contribution is recorded as and expenditure in national budgets. The NMS-8[5] must pay contributions equivalent to 1.27% of annual GNP in 2005 and 2006[6]. Postponing their accession date from January 1 to May 1, 2004 reduced by one third their annual contributions in 2004, to the level of 0.85% of NMS-8 GNP. For the purpose of this analysis, the annual average contribution is calculated at 1.1% of GDP for 2004-2006.

Taking into consideration the full flow of the funds which are recorded at the general government accounts and the countries' contribution to the EU budget, the positive net fiscal effects of EU accession will be observed in five NMS in 2004-2006 (Table 5). These are: Latvia (1.75% of GDP), Lithuania (1.58%), Estonia (1.02%), Poland (0.45%) and Slovakia (0.33%). Three countries will record a negative fiscal effect: Slovenia (0.04% of GDP), Hungary (0.06%) and the Czech Republic (0.12%), due to the relatively low level of SF and CF transfers, which can be considered a indirect consequence of their higher GDP per capita levels (compared to other NMS). The relatively high budgetary compensations in the Czech Republic and Slovenia will not change this picture.

Table 5: Net fiscal effects of EU transfers in 2004-2006, percentage of GDP, annual average

Item	CZ	EE	HU	PL	SL	LT	LV	SK
Net fiscal effects of EU transfer flows (1+2+3+4+5+6)	-0.13	1.02	-0.06	0.45	-0.04	1.58	1.75	0.33
Membership contribution (1)	-1.12	-1.05	-1.06	-1.12	-1.04	-1.06	-1.04	-1.14
Budgetary compensation (2)	0.33	0.1	0.1	0.25	0.31	0.1	0.1	0.1
Structural Funds transfers (3)	0.33	0.79	0.44	0.67	0.16	0.87	1.06	0.65
Cohesion Fund transfers (4)	0.08	0.28	0.10	0.15	0.05	0.26	0.41	0.14

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[5] Malta and Cyprus are obliged to pay higher membership contributions (1.5% of GNP), while the structure of received transfers differs from that of NMS-8.
[6] According to ESA 95 standards the membership contribution is defined in terms of gross national income (GNI). However, the European Commission (EC, 2003) has recalculated that a contribution amounting to 1.24% of GNI is equal to 1.27% of GNP. For the purpose of our estimation in **Tables 4** and **5** membership contributions are presented as a percentage of GDP (the same concerns EU transfers and all accession related expenditures).

'Internal actions' and additional expenditures (5)	0.11	0.47	0.18	0.2	0.24	0.78	0.48	0.27
Rural development under the CAP (6)	0.15	0.42	0.17	0.3	0.23	0.63	0.74	0.3

<u>Source</u>: EC (2002), AMECO database, own calculations

Apart from the budgetary transfers' classification issue, there are of course several additional sources of uncertainty in net fiscal impact of accession calculation. Firstly, the net gain on EU transfers will look different if EU funds are not fully absorbed (Antczak, 2003). According to fragmentary evidence, the absorption rate in the first year of EU membership was really disappointing, mostly due to slow formal process of projects' approval – see IMF (2005a) for Lithuania and IMF (2005b) for Poland.

Secondly, the size of co-financing of the SF and CF projects strictly depends on the projects implementation and the funds absorption rate. Of course, stronger absorption can support country development and influence economic growth. However, greater use of EU funds will increase the government's co-financing obligations and hence the pressure on the budgets. The yearly average estimated co-financing requirements in the NMS are assessed at the level of 0.4% of GDP (Hallet, Keereman, 2005)[7]. Following the most resent sources (IMF 2005), the Lithuanian example, the *ex post* co-financing expenditures were limited to 0.23% of GDP in 2004 – almost 5 times less than planned. However, co-financing is expected to rise to 1.3 % of GDP in 2005 and 2006 which is comparable to the level of planned revenue from the EU for agriculture in Lithuania. In the other hand, the co-financing needs in Slovenia are planned at the level of 0.3 – 0.1% of GDP in 2004-2006 (IMF, 2004a). The differentiation of co-financing amount depends on the transfers' amounts and its structure. Among the NMS, Lithuania is likely to receive the highest assistance per capita from SF and CF transfers and smaller amounts for projects which do not require co-financing (IMF, 2004c) so, the co-financing obligations could be the real pressure on the budget in this country. Moreover, the size of co-financing of the SF and CF projects strictly depends on the projects implementation and the funds absorption rate (IMF Country reports). It is not yet known how large part of the potential transfers can be absorbed in practice.

In addition, effective payments for different appropriations will lag, sometimes by many months, behind NMS' contributions to the EU budget (paid in monthly installments from May 2004). This creates a one-off negative fiscal effect in the first years of EU membership. A similar negative one-off effects stem from the mechanism of direct CAP payments to farmers. These payments in 2004 had to be fully pre-financed. These costs are considered as the important fiscal costs of accession by the NMS. In the context of the Common Agricultural Policy (CAP), direct income payments to farmers are reimbursed from the EU budget in the subsequent year.

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[7] The European Commission sources as Hallet and Keereman (2005) used to underestimate the co-financing requirements and the overall fiscal costs of accession. More detailed estimation of co-financing requirements calculation by the types of transfers is provided by Poznanska (2005). In this paper co-financing needs range from about 0.4% of GDP in Czech Republic and Slovakia to 0.7% of GDP in Latvia and Lithuania. On average, co-financing in the NMS is projected at the level of 0.55% of GDP in 2004-2006. The reason to this difference is that the EC do not include top-up payments to farmers into the public co-financing needs, claiming that a part of the top-up payments could be financed from the EU rural development transfers..

2.2. *The fiscal challenge – accession related expenditures and the importance of infrastructure investment needs*

More important costs of EU accession originate from the adoption of some specific *acquis communautaire*, particularly in fiscally sensitive areas such as environmental protection, infrastructure, transport, public administration, social policy, border controls, etc. Those accession-related expenditures that have never previously been financed from the budget can only be covered by EU transfers in very limited extend. Most of them require substantial increases of public expenditure. The estimation of accession related expenditures and the calculation of the total net budgetary impact of accession are presented in Table 6.

Table 6. Total net fiscal effects of accession in NMS-8, 2004-2006, percentage of GDP, annual average

Item	CZ	EE	HU	PL	SL	LT	LV	SK	EU – 8
Net fiscal effects of EU transfer flows (1)	-0.1	1.0	-0.1	0.5	-0.0	1.6	1.8	0.3	0.6
Accession related expenditure (2)	-2.5	-1.7	-1.5	-1.3	-1.3	-2.0	-2.0	-2.3	-1.9
Infrastructure expenditures	-1.5	-1.5	-1.5	-1.5	-1.0	-1.5	-1.5	-1.5	-1.4
Reform of public administration	-1.5	-1.5	-1.0	-1.5	-1.0	-1.5	-1.5	-1.5	-1.4
Phasing out of production subsidies	1.0	0.3	1.5	2.0	1.0	0.3	0.3	1.0	0.9
Realignment of custom duties	-0.5	0.3	-0.5	-0.5	-0.5	0.3	0.3	-0.3	-0,2
Tax harmonization	0.0	0.7	0.0	0.3	0.3	0.5	0.5	0.0	0.3
Total net fiscal effects of accession (1+2)	**-2.6**	**-0.7**	**-1.6**	**-0.8**	**-1.3**	**-0.4**	**-0.3**	**-2.0**	**-1.2**

Note: Presented calculation is provided on the yearly average basis. Due to relatively small budgetary impact of EU transfers there was no sense to make year-by-year analysis. Moreover, accession related expenditures are estimated also on yearly average basis. Making the year-by-year division of these costs would provide even more uncertainties.

General correctness of our net fiscal impact of accession estimation (in terms of sign, not necessarily the exact numbers) has been indirectly confirmed *ex post* by two recently published IMF country reports. Using a slightly different methodology, the net fiscal impact of EU accession for Estonia has been calculated at the levels of -0.1, -0.4 and -0.8% of GDP in the subsequent years 2004-2006 (IMF, 2004b). In Slovenia the net fiscal impact was assessed at the corresponding levels of -0.8, -1.1, -1.2% of GDP (IMF, 2004a).

The net fiscal effect of accession-related expenditures is stronger than the net fiscal effect of EU transfers presented in Table 5 and negative for all NMS. It ranges from -1.3% GDP in Poland and Slovenia to -2% of GDP in Baltic countries and -2.5% of GDP in the Czech Republic (see Table 6).

The fiscal cost of compliance with the *acquis* is especially heavy in the areas of environmental protection (in particular, rehabilitation of polluted industrial areas, water and air treatment and waste management) and transport infrastructure (road construction and upgrading of railroads). A significant part of these costs can be financed from SF and CF, but

total annual inflows of SF and CF estimated at a level ranging from 0.2% of GDP in Slovenia to 1.5% of GDP in Latvia are obviously not sufficient to cope with this challenge.

Graph 2. Net fiscal effects of EU accession (transfers and accession related costs), percentage of GDP, annual average.
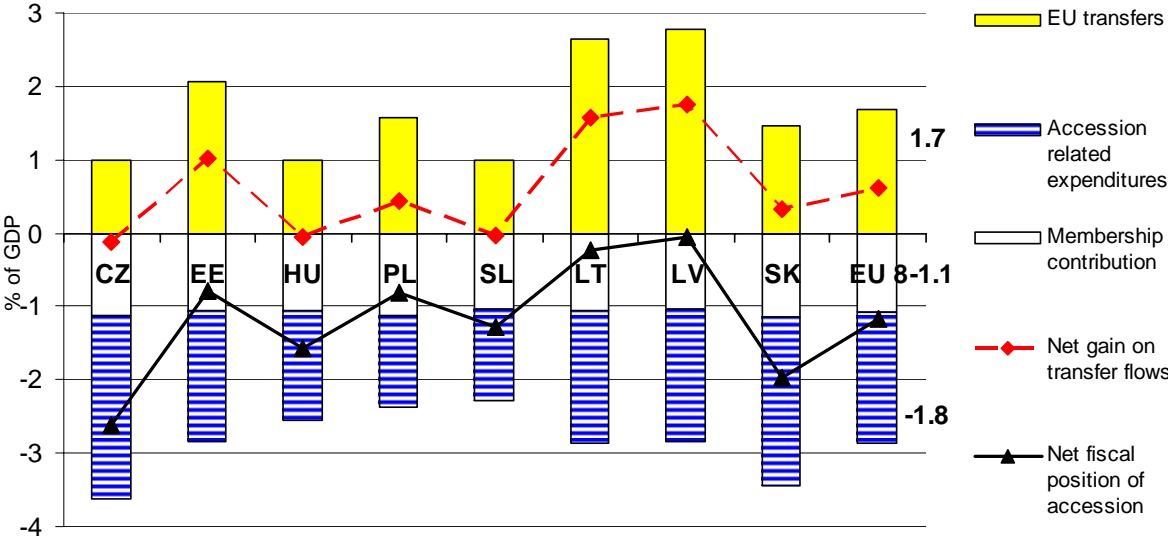
Undoubtedly, the total environmental and infrastructure investment needs of the 8 new member states constitute a serious fiscal challenge. Van Miert Report (2003) estimates that the total EU-8 investment needs in transport infrastructure amount to 100 billion Euro, which has been equivalent to around 20% of their GDP in year 2004: "*Approximately 20,000 km of roads and 30,000 km of railways, as well as ports and airports, will have to be built or modernised to achieve the criteria and the objectives of the Decision on the trans-European network guidelines applicable in the current Member States. The investments to be made in those countries can be estimated at about €100 billion, which is huge compared with their GDP*" (van Miert, 2003, p. 16).

Nonetheless, the necessary investments should not be postponed, as this infrastructure gap, especially the inadequate length and standard of roads, could be a serious impediment to growth. "*Adequate transport infrastructure is one of the conditions for the economic development of the acceding countries and their integration into an internal market on a continental scale, as well as for strengthening the accessibility of the peripheral regions towards the central regions. Borders will not be truly opened and people and goods will not be able to circulate freely and efficiently if the roads, railways, airports and ports of these countries are not modernized.*" (Van Miert, p. 16)

A vivid example for the gap in transport infrastructure is a comparison of the length of motorways per 1000 square km of land: the length of motorways in EU-8 (except Slovenia) is under 7 km while in the EU 15 the average length is over twice as much (see graph).

Graph 3: The length of motorways, per 1000 km in European countries
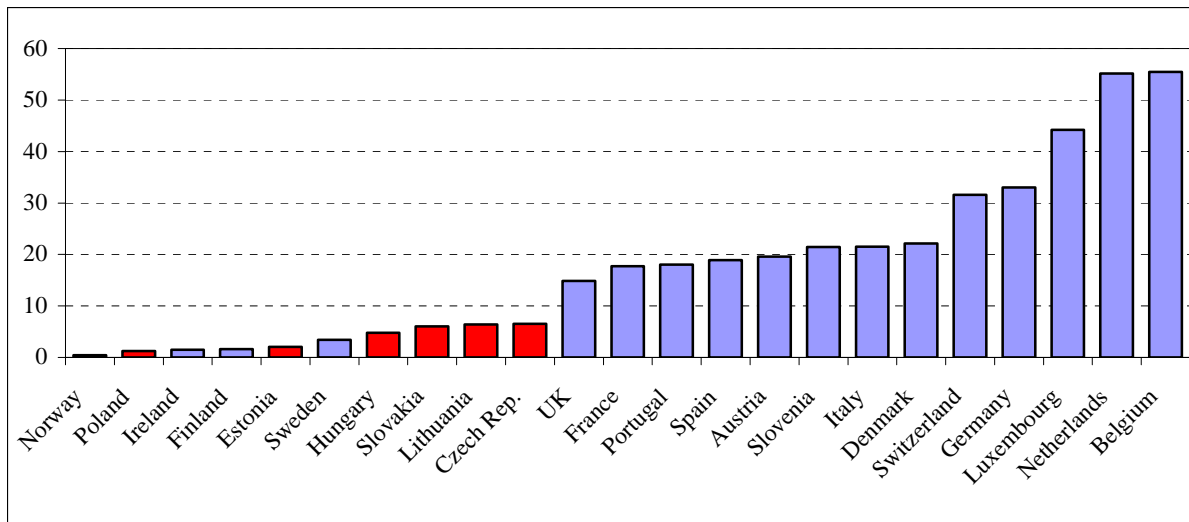
Source: Eurostat

There is also a need to increase investment in the environment protection. For example, the percentage of residential population connected to public wastewater treatment in EU-8 is on average lower than in EU –15 (see graph 4).

Graph 4: Residential population connected to public wastewater treatment
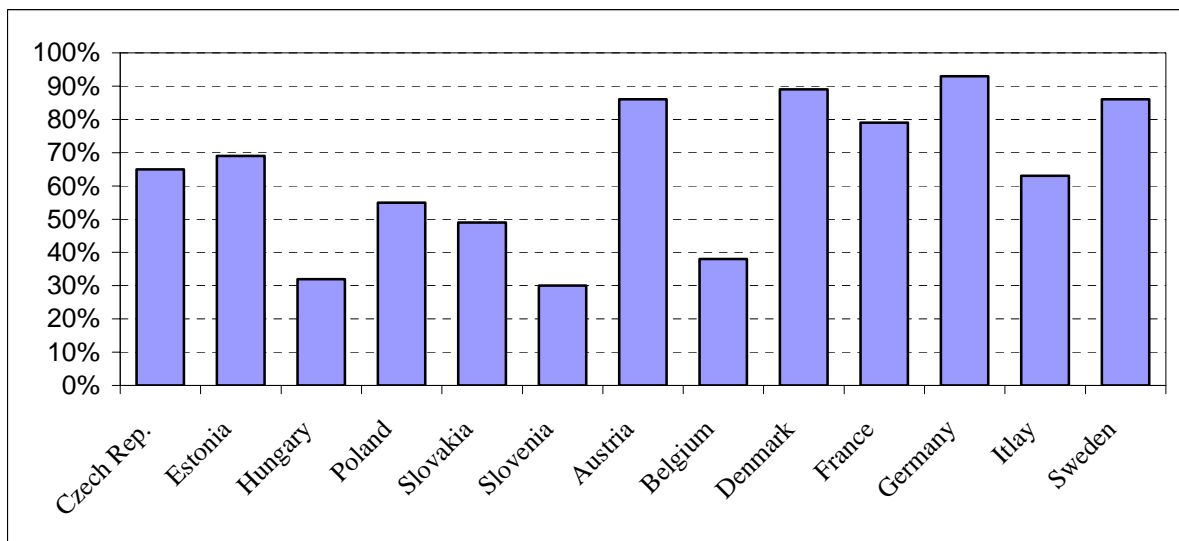
Source: Eurostat

The total environmental investment needs in EU-8 are estimated at €47 - 69 billion - which amounted to around 10-14% of their GDP in 2004 with Poland having the biggest needs - estimated at €22-45 billion (between 10 and 22% of GDP in year 2004), Hungary - €10 billion (12% of GDP in 2004) and Czech Republic - €9.4 billion (11% of GDP in year 2004) (Magazine of the Directorate-General for the Environment).

Overall, it is estimated that the additional budget expenditures for infrastructure and environment protection projects may require up to 1.5% of GDP annually[8].

Up to now, public investments in the NMS (except Latvia), relative to GDP, have remained above the EU average of around 2% of GDP (see graph 6). However, as several NMS (including Poland, Hungary and Czech Republic) will have to reduce their fiscal imbalances. a frequently expressed concern is that fiscal consolidation will lead to a cut in public investments. This belief is based, among others, on the conjectured experience of EMU countries - it is sometimes claimed that fiscal adjustment related to the introduction of Maastricht fiscal rules has led to a decline in public investment in these countries (Balassone and Franco, 2001; Turrini, 2004). It is true that in EU countries in the 1990's, the investment rates have been on average declining. In years 1991-1993 reductions in investment rates mainly took place in Italy, Finland and UK; the UK has also registered a large drop in years 1994-1998 (in spite of the fact that UK chose to not to join the EMU). Large drops in years 1994-1998 were also recorded in Belgium, Germany, Sweden and France. In years 1999-2002 (i.e. after the adoption of the Euro), the investment share in EU countries rose on average.

However, Turrini (2004) points out that the decline in public investment is a process that dates back to 1970's and characterizes not only EU countries, but other industrial countries as well, hence the observed decline might have been caused by factors other than EMU fiscal criteria.
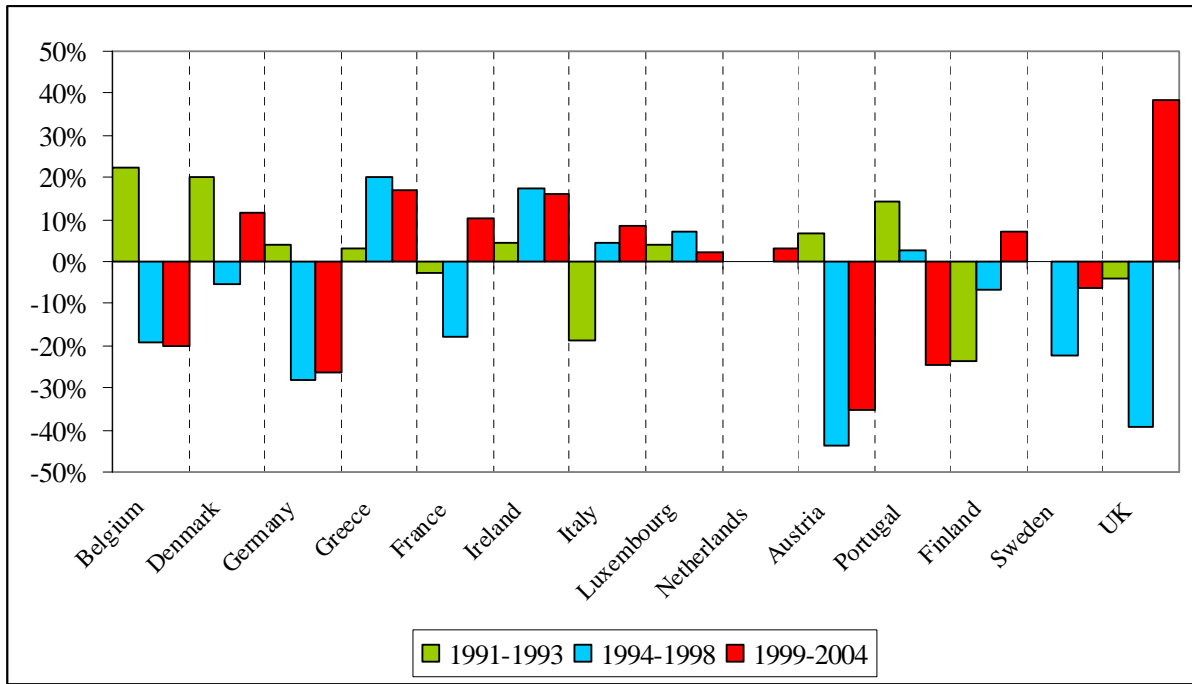
To verify the impact of fiscal criteria on the investment ratio, Turrini (2004) estimates a panel regression for 14 EU countries for the period 1970 - 2002. The results indicate that Maastricht fiscal framework may have had indeed a negative effect on public investments in EMU countries: the results of his regression analysis show that since 1993, public investments in EMU countries have become more dependent on debt stabilization motive, compared to non-EMU countries and to pre-1993 period - i.e. the negative impact of the level of public debt on ratio of public investment becomes stronger after 1993 in EMU countries.

On the other hand Perée and Välilä (2005) also using econometric methods and similar data do not find any significant impact of the EMU fiscal rules on the ratio of public investments.

Overall, it seems therefore that in case of EMU, the empirical evidence on the negative relationship between public investment and adoption of Maastricht fiscal rules is not strong.

Graph 5. Percentage change in public investment* to GDP ratios in EU-15.

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[8] On the basis of estimates from the World Bank in 1997 and 1999 for Estonia, Hungary and Poland. Depending on the data source (Jedrzejewski, Poznanska 2005, Koptis, Szekely 2002, Antczak 2003), this figure ranges around the World Bank's data amount.
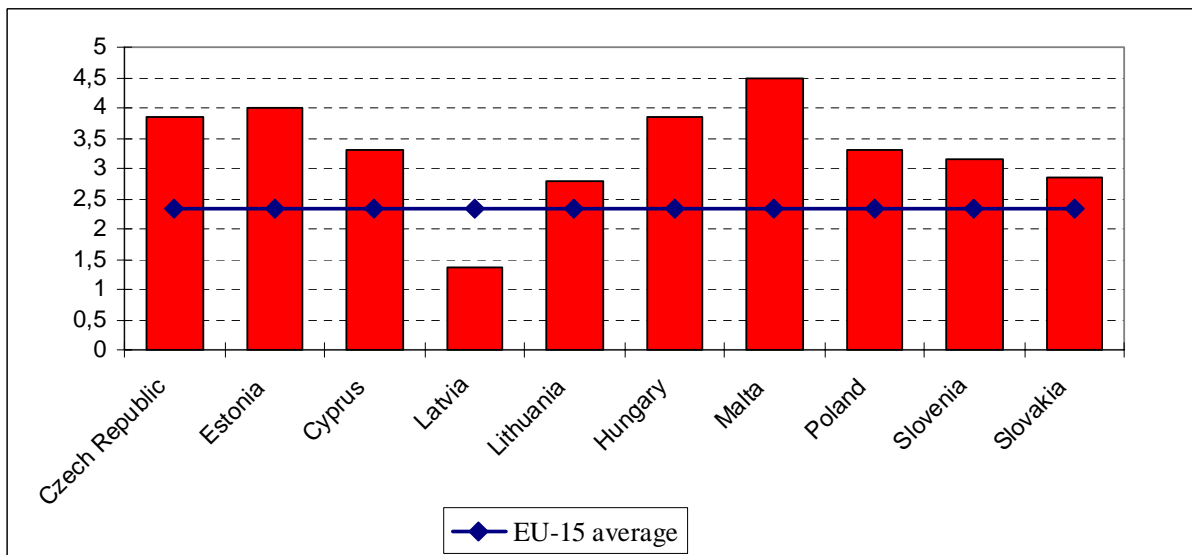
* gross fixed capital formation of general government

However this does not mean, that the governments of NMS might not be tempted to postpone the necessary expenditures in order to satisfy the fiscal convergence criteria, what might have a negative impact on the future growth rate of these countries.

Graph 6. Average public investment* in NMS, percentage of GDP (2000-2004)

*gross fixed capital formation, general government

Another important accession-related cost is associated with public administration reform. This accession-related cost originates also from the obligation to fulfill the *acquis* as well as to distribute EU funds, what creates a need to strengthen the administration capacity of the NMS. The magnitude of this effect was estimated at the level ca. 1% of GDP, taking into consideration that the full administration reform costs can be partially offset by transfers from the additional expenditure category [9].

On the other hand, the obligation to harmonize indirect taxes may bring additional revenues to national budgets of up to 0.7% of GDP, mainly from a broadening of the VAT base, higher excise duties and eco-taxes.[10] However, there are also other negative effects of accession in respect to VAT collection. In 2004 some NMS recorded the sizable one-off liquidity shortfall in collecting VAT from EU imports. According to IMF Country Reports this effect amounted to 0.3% of GDP in Slovenia (IMF, 2004a), and 0.5% of GDP in Estonia (IMF, 2004b).

The launching of EU support for EU agriculture should reduce or eliminate some existing farm subsidies. The overall fiscal effect will primarily be determined by the size of the agricultural sector in each country (very high in Poland and low in Estonia). The phasing out of farm subsidies, along with non-farm subsidies as a result of adopting the *acquis* in the area of state aid and competition, may lead to significant budgetary savings of around 1% of GDP or more in some NMS[11]. However, there is a lot of uncertainty about the timing and scope of these reductions in individual NMS, which is closely connected with the lack of political will to carry out fundamental fiscal adjustment.

Accession also brought with it the removal of customs duties on imports from EU members and the adoption of a common external tariff on non-EU imports. However, in low-tariff countries (for example Estonia) this will result in a small gain. Depending on country tariff rates prior to accession, realignment of customs duties will result in -0.5% of GDP in Hungary, Poland, the Czech Republic and Slovenia and +0.5% of GDP in Estonia.

In the medium to longer run NMS' increased deficits are likely to be partly compensated by the favorable indirect fiscal effects of accession. Long-term gains may originate from the new wave of FDI (already visible in Slovakia), better infrastructure (many projects are being implemented across the CEE countries), decreasing transaction costs of trade, industrial cooperation and new opportunities offered by access to the Single European Market, not to mention the political and security benefits, leading to higher GDP growth rates and higher fiscal revenues. The small second-round gain on VAT and PIT has been already noticed in some countries (in Estonia, see IMF, 2004b). In addition, the EU's fiscal discipline rules, on the one hand, and prospects of EMU accession on the other, may push the NMS to undertake a more serious reduction of their non-accession related budget expenditures and to reduce the

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[9] The estimates of additional investment and administrative spending presented in **Table 2** can be considered as their upper limit. However, the same can be said about the third item, i.e. phasing out production subsidies, which represents the opposite in terms of its influence on fiscal balance.

[10] In Estonia, a sizable gain from VAT and excise harmonization (0.7% of GDP) was recorded already in the first year of EU membership (IMF, 2004b). On contrary, in Slovenia no gain from VAT harmonization was recorded in 2004 and positive effects of excise harmonization were negligible (0.03% of GDP; see IMF, 2004a).

[11] Kopits and Szekely (2002)estimate that the phasing out of production subsidies in Poland (mostly those directed to farmers) can lower budget expenditures by 2% of GDP, however, despite the substantial inflow of EU funds for agriculture sector in Poland in 2004-2005, domestic expenditure on agriculture policies has been in fact increasing in relation to GDP. The calculated *ex-post* additional pressure on increase of expenditure on agriculture policies amounted to ca. 1% of GDP increase in 2004 and the planned for 2005 (Jedrzejowicz and Poznanska 2005).

deficits in the future. As a conclusion one can say that in the short-run EU accession increases a country's budget deficits due to the costs associated with the implementation of the *acquis*, national expenditure to co-finance and pre-finance of the EU funds and creates also favorable longer-term effects with budgetary challenges.

2.3. Net fiscal position of the NMS for the new financial perspective 2007-2013

It is very difficult to predict the net fiscal balances of NMS in the period 2007-2013. As Richter (2005) states, the net positions in the past three years of the current financial perspective (2004-2006) are not illustrative as the phasing-in of Structural Policy transfers for the NMS shows the accession-related costs to be lower now than they are likely to be from 2007 onwards. In addition, Bulgaria and Romania will probably accede in either 2007, or the year after, thus increasing the claims on transfers will still exist.

According to Richter (2005) the overall fiscal impact of Cohesion and Structural Fund transfers is assessed to be in the worst case in the order of -1.5%, in the best case +0.44% of the new members' GNI. These numbers are related to all NMS with the exception of Malta, Cyprus and Slovenia, and the methodology includes national co-financing of the EU projects. However, three additional issues have a budgetary impact.

First, the opportunity to top up EU transfers for farmers from national budgetary resources. That is optional, and the extent of top-up may vary from member state to member state, just as the relative significance of direct payments in 2005 in terms of GDP varies from 0.18% of GDP in Czech Republic to 0.37% of GDP in Lithuania (Lukas and Pöschl (2003). Top-up payments will constitute additional budgetary expenditures in the first half of the 2007-2013 period.[12]

Second, rural development and other EU programs will require stronger national co-financing, what is difficult to foresee and becomes to be an important fiscal issue in the next financial perspective. Greater inflows (in comparison to the previous financial perspective) of UE funds[13] require higher co-financing from the national budgets.

Third, NMS will participate in programs where the co-financing rates to be applied are all unknown (under sub-heading 1a Competitiveness); this makes an overall assessment of the budgetary impact impossible as yet.

Finally, the timing mismatch in the financing of Structural Policy actions may still be a substantial burden for national budgets. EU co-financed projects in the new financial perspective, similarly to previous perspective, are typically financed upon implementation, apart from an advance payment. In the case of insufficient pre-financing by commercial banks the budget (central or local governments) may have to undertake, at least partially, that task.

Greater co-financing and still important accession related costs mean that NMSs' general government deficit to GDP ratio should be strictly controlled and co-financing of increasing EU inflows will have to take place simultaneously with unchanged or reduced government expenditures in the case of several new members, those with the highest deficits to GDP ratios (Table 1).

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[12] Once the EU transfers plus top-up payments come to 100% of the direct payments theoretically allocated to a new member state, a start will have to be made on reducing the top-up as the 'phasing-in' of EU payments continues

[13] The exact numbers are still unknown. The data source for this statement is: Council of the EU, 2005. Brussels, 19 December 2005

3. Conclusions

On balance, our estimate is that accession has an unfavorable net effect on the general government balance in all NMS. The specific results depend on EU transfer flows and estimated costs of required reforms and public investment programs in individual countries, which in turn depend on their level of overall development. The Baltic countries and Poland would appear to face the smallest negative fiscal consequences of EU accession. In addition, the fiscal balance of the Baltic countries on the day of accession was the best of all the NMS, which makes the additional accession-related fiscal burden easier to accommodate.

Since some countries (Hungary, Malta and Slovakia, but also Poland and Czech Republic) have entered the EU with significant public sector imbalances, the additional fiscal pressures constitute a serious challenge on the road to EMU. It might be tempting for the governments of these NMS to decrease the fiscal pressures by postponing the necessary infrastructure and environmental investments. However, this in turn could depress the countries' growth potential and thus be a severe impediment to the real convergence process. The EU membership thus strengthens the need for a structural fiscal consolidation which is achieved NOT by reducing public investments but by rationalizing and reducing public consumption and transfers.

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<u>Appendix</u>

The projection is kept very simple. No distinction is made between debt denominated in domestic and foreign currency. The data for 2004 and 2005 are taken from EE (2005a), the data from 2006 until 2010 are projected values.

The formula used is:

$D_{t+1} = (1+r)/(1+g)*D_t - PB_{t+1}$, where

D_{t+1}, D_t is debt to GDP ratio in respectively time t+1 and t

r is implicit interest rate on debt, calculated as interest payments divided by outstanding debt

g is real GDP growth rate

PB_{t+1} is primary balance to GDP ratio in time t+1