

Schwartz, Gerd; Corbacho, Ana; Cui, Qiang; Ganelli, Giovanni; Manasse, Paolo

Article

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ABSTRACT

Most new EU member states (NMS) need further fiscal adjustment to support economic growth and macroeconomic stability. In this context, achieving income convergence with other EU members rests more with maintaining productivity growth, attracting foreign savings, and improving investment efficiency than with increasing government spending (including for infrastructure). Additional institutional fiscal reforms, aimed at improving expenditure efficiency and facilitating private sector investment, will be needed to support these objectives. However, further fiscal adjustment and reforms do not necessarily need to depress public investment. New financing options for public investment – including from various EU funds and through public-private partnerships – can ease existing fiscal and macroeconomic constraints, but present both new opportunities and challenges that need to be handled carefully.

Gerd Schwartz (gschwartz@imf.org), **Ana Corbacho** (acorbacho@imf.org), **Qiang Cui**, and **Giovanni Ganelli** are, respectively, Assistant Director, Senior Economist, Senior Research Officer and Economist with the International Monetary Fund. **Paolo Manasse** is professor of economics with the University of Bologna.

Macro-fiscal policy challenges and public investment in new EU member states

1. Introduction

Fiscal policy in the new EU member states (NMS) faces a challenging dilemma.¹ On the one hand, fiscal policy must support growth and convergence by allowing increased levels of investment, not least to upgrade infrastructure. On the other hand, fiscal policy must safeguard macroeconomic stability and fulfil the budget requirements of the EU Stability and Growth Pact, while facing additional expenditure needs for complying with the European laws and standards (the so called *Acquis Communautaire*).² These standards call for reforms in the labour market, the tax and pension systems, subsidy schemes, and other areas, which may entail up-front costs. In addition, many countries must prepare to buffer the impact of increasing expenditure pressures related to an aging population within a sustainable medium- to long-term macro-fiscal framework.

To varying degrees, many NMS have carried out fiscal adjustment in recent years, with implications for the level of public investment. Although a large part of this adjustment has fallen upon public expenditures, including public investment, reductions in domestic funding for public investment have, to some extent, been counterbalanced by the availability of new financing support. Part of this financing has been provided by EU funds directed toward projects with a regional impact and of common European interest. In addition, many countries are advancing the implementation of public-private partnerships (PPPs) as an alternative to traditional public investment to develop infrastructure.

Against this background, this paper looks at some specific fiscal policy and public investment issues in the NMS. In particular, the paper aims to address the following questions. First, what do recent growth experiences in NMS imply for macro-fiscal coordination? Second, what has been the impact of fiscal adjustment on public investment levels? Third, where do NMS stand with respect to infrastructure? Fourth, what is the role of new financing sources, including EU funds and PPPs?

Strong fiscal positions are critical for reducing macroeconomic vulnerabilities and enhancing growth prospects in the NMS. In general, fiscal policies should aim to raise the efficient use of the whole envelope of available financing to address investment needs. Still, the diversity of growth experiences and fiscal policy stances among NMS underscores that country-specific fiscal strategies are needed. While some countries have resorted to investment cuts to consolidate fiscal positions, others have been more successful in both accommodating higher levels of investment and reducing fiscal imbalances. Also, new available financing presents opportunities as well as challenges, requiring improvements in the institutional framework for investment and PPPs. In the case of EU funds, absorbing the substantial additional resources under the new financial perspective will demand important efforts to reallocate expenditures and to step up absorptive capacities. Similarly,

1 For the purpose of this study, the NMS include the countries that became members of the EU in May 2004, plus Bulgaria and Romania that became members in early 2007.

2 This term denotes the treaties, regulations and directives passed by the European institutions as well as judgments laid down by the Court of Justice. Candidate countries must adopt, implement, and enforce all the *acquis* to be allowed to join the EU. In addition, they often have to set up or change the relevant administrative or judicial bodies which oversee the legislation. The "chapters" of the *acquis* address, for example, issues related to the free movement of goods, services, persons, and capital, company law, competition, transport, energy, research, industrial policy, education, energy, environment, culture, consumers, and health protection, as well as stipulations for cooperation in the fields of justice, customs, foreign and security policy, and financial and budgetary provisions.



Gerd Schwartz



Ana Corbacho



Qiang Cui



Giovanni Ganelli



Paolo Manasse

while PPPs provide a promising route for channelling more resources into infrastructure investment, strengthening the institutional framework for PPPs and limiting incentives to simply move investment off budget is crucial to deliver on the expected benefits and manage the associated fiscal risks.

The rest of the paper is organized as follows. Section 2 reviews the implications for fiscal policy of efforts to enhance growth and macroeconomic stability. Section 3 analyzes fiscal developments in NMS and the role of public investment in fiscal adjustment episodes. Section 4 discusses the state of infrastructure in NMS. Section 5 focuses on the potential role of new mechanisms for financing infrastructure, particularly increased EU support following EU membership and PPPs. Section 6 concludes.

2. Economic growth and stability: The role of fiscal policies

High GDP growth in the new member states has been driven by investment but even more by productivity gains.

Mostly driven by productivity growth and investment, growth in the NMS has been high but uneven. In general, the Baltics achieved much higher growth rates than Central and Eastern European countries (CEEs). As shown in Figure 1, productivity growth was a key engine for economic growth, with a contribution of almost double that of East Asian emerging market comparators (Schadler *et al.* 2007). This reflected economic reforms that addressed large inefficiencies inherited from central planning. Capital accumulation also played a substantial role in supporting growth. In contrast, employment contributed little, likely associated with significant labour shedding during the transition.

Foreign savings were instrumental to financing investment. National savings have been relatively low in the NMS, with only the Czech Republic, Slovenia, and Estonia achieving rates above 20 percent of GDP. However, due to ample availability of foreign financing – which contributed between 9 and 38 percent of gross investment in the NMS – low national savings have not held back investment (Figure 2). The resulting total investment rates of about 24 percent of GDP in the CEEs and 30 percent of GDP in the Baltics are comparable to those observed in other fast growing emerging markets. European integration has likely facilitated such increased use of foreign capital.

Looking ahead, continued capital inflows and increased national savings – both needed to sustain and strengthen investment and growth – will require sound fiscal policies.³ In most NMS, strengthening fiscal sustainability will require further efforts at expenditure- based fiscal consolidation, considering high initial expenditure levels. In this regard, Alesina *et al.* (2002) find that lower public spending can reduce labour costs and raise profits and private investment. Fiscal consolidation can also reduce the borrowing cost for the private sector to access international capital markets through reduced country risk. IMF (2005) reports that countries with lower public debt receive higher sovereign bond ratings, and Akitoby and Stratmann (2006) find that spending cuts, particularly cuts in current expenditure, are associated with lower sovereign bond spreads.

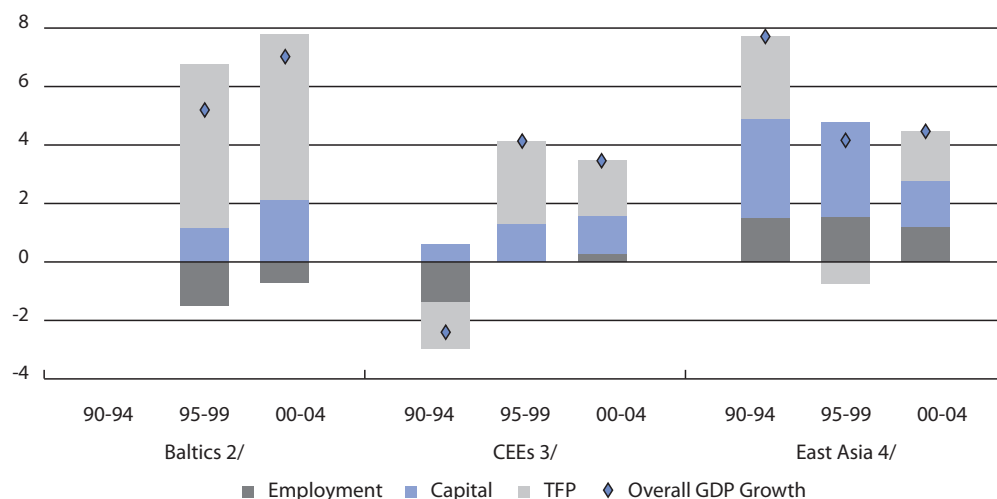
Strong fiscal policies are also needed to safeguard overall macroeconomic stability. As in many fast-growing economies, there is evidence of some build-up of macroeconomic vulnerabilities in the NMS (Figure 3). Current account deficits are high in several NMS (the Baltics and Hungary),

³ Although Ricardian equivalence theory suggests that private saving may adjust to fully offset changes in public saving, the empirical literature on developing countries only finds small Ricardian effects, which, among other things, may reflect less developed financial markets and the associated market perceptions on public sector governance and country risks. See Feldman and Watson (2002) for details.

comparable to pre-crisis levels in East Asia. Similarly, external debt indicators show some weakness in several NMS (Latvia, Estonia, Hungary, Slovenia, and Slovakia). In addition, a few NMS also exhibit low ratios in reserve coverage of short-term debt. While EU membership in itself helps to make the NMS more resilient, they have no alternative to maintaining prudent fiscal positions: Fiscal policies consistent with macroeconomic stability are both required by the Stability and Growth Pact and essential for safeguarding sustainable growth.

Prudent fiscal policies are essential for safeguarding macroeconomic stability and sustainable growth.

Figure 1. Contributions to average GDP growth in NMS 1/



Sources: IMF staff estimates

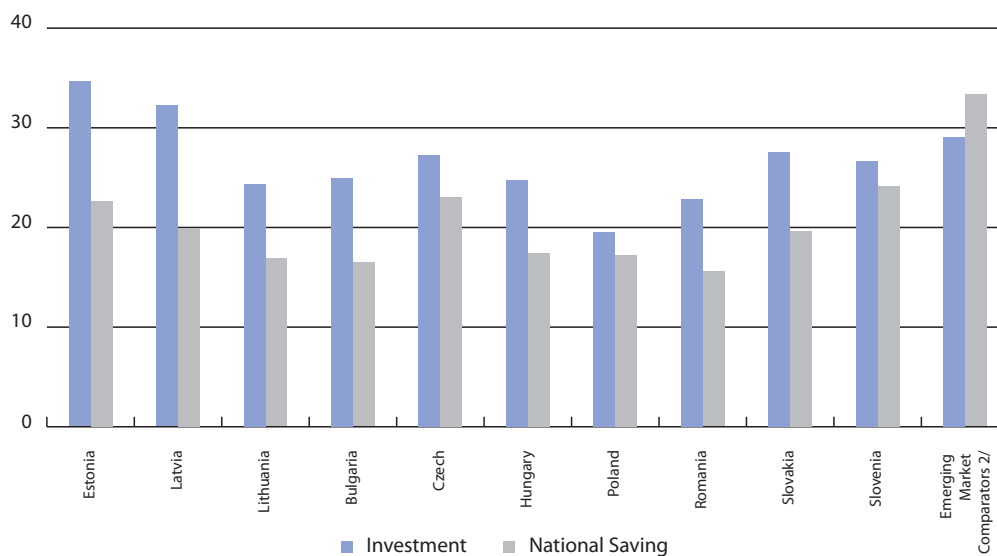
Notes: 1/ Data based on growth accounting by decomposing sources of growth into capital and labor inputs, and total factor productivity (TFP). See Schadler *et al.* (2007) for details.

2/ Data for 1990–94 are not available.

3/ Data only include Czech Republic, Hungary, Poland, Slovakia, and Slovenia.

4/ The group includes China, Hong Kong SAR, Indonesia, Republic of Korea, Malaysia, the Philippines, Singapore, Taiwan Province of China, and Thailand.

Figure 2. Saving and Investment in NMS 1/ (in percent of GDP)



Source: IMF (2006a)

Notes: 1/ Data refer to national gross saving and investment rate in percent of GDP.

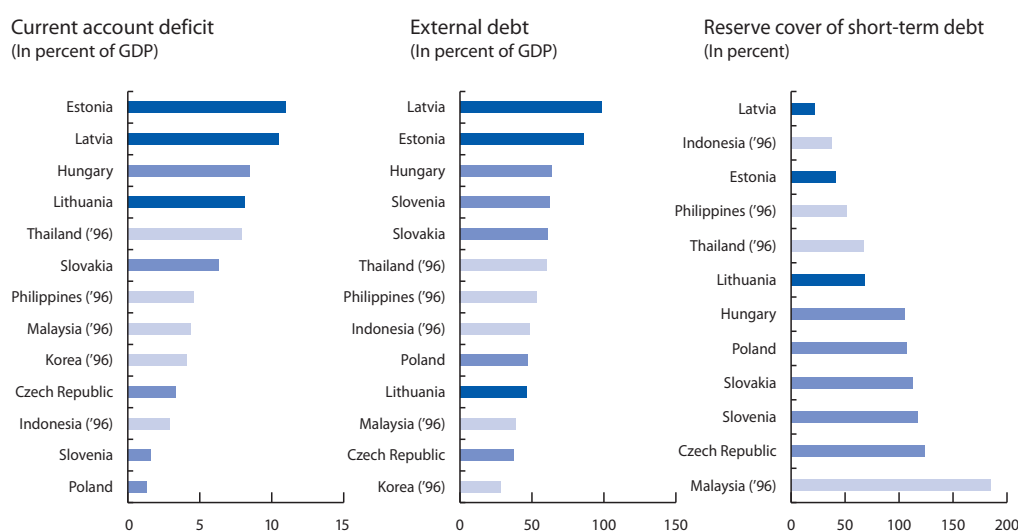
2/ The emerging market comparators include 5 fast growing countries: Chile, China, India, Republic of Korea, and Malaysia.

Further productivity gains, including for public investment, may be more critical for economic growth than higher investment levels.

Further productivity gains, including for public investment, would be required to help support macroeconomic stability and foster economic growth. For example, for the Czech Republic, Hungary, and Slovakia, and assuming no further productivity gains, halving the income gap *vis-à-vis* the old member states over 10 to 20 years would require a dramatic increase in investment by 12 to 15 percent of GDP from the current level (Table 1). In contrast, assuming no increase in investment rates, the productivity growth needed to close the income gap is largely in line with the average level in the NMS. This suggests that, even at current levels of total investment, increases in efficiency to the level of leading peers could already go a long way toward achieving higher growth (Figure 4). For example, in 2000–2005, total investment in Slovakia was higher than in Latvia by 6 percent of GDP, but per-capita GDP growth rate was only half. Therefore, while increasing investment levels remains important, boosting the efficiency of investment, particularly public investment, may be even more critical. Policy options to improve efficiency gains may include, for example, reallocations between new investments and maintenance and optimized choices between investment alternatives for more cost-effective usage.

At the same time, fostering growth will require addressing the institutional and policy constraints that are seen as key barriers to business activity. As shown in Table 2, recent World Bank Investment Climate Surveys (ICS) suggest that, among 18 indicators, private firms consistently rank tax rates, economic and regulatory policy uncertainty, and macroeconomic instability as top constraints for businesses in the NMS. In contrast, none of the infrastructure indicators (*e.g.*, access to land, electricity, telecommunications, and transport) are among the top 12 constraints in any NMS. Therefore, private investment decisions are more closely related to the strength of government institutions and policies than to the availability of infrastructure, and public investment alone would not foster private investment if other pressing concerns are not addressed.⁴

Figure 3. Macroeconomic vulnerability indicators in NMS and East Asia



Source: IMF (2006a)

Note: Data are for 2005, unless noted otherwise.

⁴ This is not to say that public investment does not contribute to growth. In theory, public investment contributes to growth both as an input and by enhancing productivity. Yet, the empirical evidence is mixed. Surveys by Sturm *et al.* (1998) and de Haan *et al.* (2008) conclude that public capital stimulates economic growth, but the quantitative impact is lower than previously believed. Also, public investment has decreasing returns and, beyond certain thresholds, may crowd out private investment.

Table 1. Implications for investment and productivity growth of convergence in the NMS

	Income per capita		Convergence target 1/		Scenario I: Maintaining productivity				Scenario II: Maintaining investment				
	In PPP US\$	In percent of Euro area ave.	Years to half the income gap	Required GDP growth rate	Growth Contribution				Growth Contribution				
					TFP 2/	Labor 3/	Capital 4/	Investment Required	Ave. investment in 2000-04	Capital 5/	Labor 3/	TFP 4/	Ave. TFP growth in 2000-04
					(in percent per year)				(in percent per year)				
Estonia	12,773	49	10	6.1	3.4	0.5	2.1	29.5	27.7	1.9	0.5	3.7	5.2
Latvia	11,148	43	11	6.5	3.7	0.5	2.3	31.1	24.8	1.4	0.5	4.5	5.8
Lithuania	12,051	46	10	6.6	3.4	0.5	2.7	26.3	20.6	1.7	0.5	4.4	5.2
Czech Rep.	17,937	69	9	4.3	1.6	0.5	2.2	42.2	27.2	0.8	0.5	3.0	1.5
Hungary	15,399	59	11	4.6	1.6	0.6	2.4	35.3	23.1	1.0	0.6	3.1	2.9
Poland	11,921	46	20	4.3	1.6	0.6	2.1	25.1	20.0	1.3	0.6	2.4	1.8
Slovakia	13,437	52	16	4.4	1.6	0.6	2.2	38.6	26.5	1.0	0.6	2.9	3.0
Slovenia	19,251	74	8	3.9	1.6	0.5	1.8	27.4	24.3	1.4	0.5	2.0	1.7

Source: Schadler *et al.* (2007)

Notes: 1/ The income convergence targets are set to half the income gap to the Euro area average in a timeframe that is 20 percent shorter than implied by the current trend with no increases in productivity growth or investment ratio. The convergence half-time is calculated based on $T = \ln(2) / [(g - *) / \ln(y/y^*)]$, where g is per capita income growth; y is the income level in PPP US\$; and $*$ refers to the Euro area average.

2/ TFP growth is assumed to be 1.6 percent for the CEEs and gradually decline to the assumed level for the Baltics over ten years.

3/ Employment rates are assumed to increase by 1/2 percentage point per year and labor's share is 0.65.

4/ Calculated as a residual to derive the required investment or TFP growth.

5/ Assumes investment/GDP remains at the averages for 2000-04.

Table 2. Business constraints perceived by private firms in NMS 1/

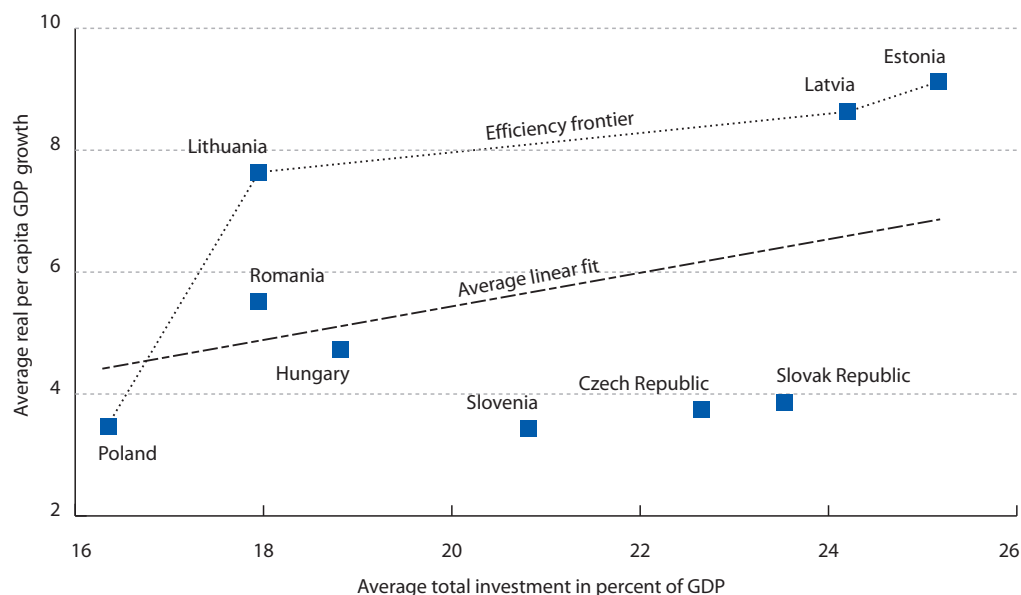
Business constraint factors	Average score on importance										Ranking of constraints based on the average scores 2/													
	Bulgaria (2004)	Estonia (2002)	Hungary (2002)	Latvia (2002)	Lithuania (2004)	Poland (2003)	Romania (2002)	Slovakia (2002)	Slovenia (2002)	Baltics	CEES	Group average	Bulgaria (2004)	Estonia (2002)	Hungary (2002)	Latvia (2002)	Lithuania (2004)	Poland (2003)	Romania (2002)	Slovakia (2002)	Slovenia (2002)	Baltics	CEES	Group average
Telecommunications	1.4	1.5	1.3	1.4	1.3	1.6	1.5	1.3	1.2	1.4	1.4	1.4	17	16	15	15	17	15	17	17	15	17	17	17
Electricity	1.7	1.6	1.2	1.3	1.5	1.7	1.7	1.5	1.2	1.5	1.5	1.5	15	14	17	17	15	14	15	16	17	16	16	16
Transport	1.8	1.6	1.5	1.4	1.5	1.5	1.6	1.6	1.2	1.5	1.5	1.5	14	15	14	16	16	17	16	15	16	15	15	15
Access to land	1.6	1.4	1.3	1.4	1.8	1.6	1.7	1.7	1.4	1.5	1.6	1.6	16	17	16	14	14	16	14	14	13	14	14	14
Tax rates	3.1	2.3	2.7	2.8	3.8	3.5	3.2	2.7	2.1	3.0	2.9	2.9	4	4	1	2	1	2	2	3	4	1	2	1
Tax administration	2.2	1.8	2.1	2.8	2.9	3.0	2.7	2.2	1.7	2.5	2.3	2.4	12	12	7	3	3	5	5	8	10	4	8	6
Customs and trade regulations	2.2	1.6	1.8	2.1	1.9	2.4	2.0	2.2	1.5	1.9	2.0	2.0	11	13	10	6	13	11	12	9	12	11	12	12
Labor regulations	2.3	1.8	1.8	1.9	2.2	2.5	1.9	1.9	1.7	2.0	2.0	2.0	10	11	9	8	10	10	13	13	9	10	11	11
Skills of available workers	2.2	2.8	2.1	2.1	2.7	2.3	2.0	1.9	1.8	2.5	2.0	2.2	13	1	8	5	5	12	11	12	8	3	10	8
Licensing and operating permits	2.5	1.9	1.7	1.8	1.9	1.7	2.3	2.2	1.6	1.9	2.0	2.0	9	9	11	11	12	13	9	10	11	12	13	13
Access to finance (e.g. collateral)	3.1	1.9	2.2	1.9	2.4	2.9	2.5	2.5	1.8	2.1	2.5	2.4	5	8	5	9	7	7	7	6	7	8	6	7
Cost of finance (e.g. interest rates)	3.5	2.0	2.3	2.0	2.4	3.3	2.8	2.6	2.2	2.1	2.8	2.6	1	6	3	7	8	3	4	4	2	7	4	4
Economic & regulatory policy uncertainty	3.4	2.4	2.4	2.8	2.9	3.6	3.0	3.0	2.3	2.7	2.9	2.9	2	3	2	1	2	1	3	2	1	2	1	2
Macroeconomic instability (infl., exch. rate)	3.0	2.2	2.3	2.4	2.4	3.2	3.3	3.1	2.2	2.3	2.8	2.7	7	5	4	4	6	4	1	1	3	6	3	3
Crime, theft, disorder	3.1	2.0	1.5	1.8	2.2	2.6	2.1	2.0	1.4	2.0	2.1	2.1	6	7	13	11	9	9	10	11	14	9	9	10
Anti-competitive /informal practices	3.4	2.5	2.2	1.8	2.9	2.8	2.6	2.3	2.1	2.4	2.5	2.5	3	2	6	10	4	8	6	7	5	5	5	5
Legal system/conflict res.	2.6	1.8	1.5	1.6	2.1	2.9	2.4	2.5	2.0	1.9	2.3	2.2	8	10	12	13	11	6	8	5	6	13	7	9

Source: World Bank (2004)

Notes: 1/ A higher value indicates higher importance of the corresponding factor as a business constraint for the surveyed business unit. Firms were asked to rate the importance of the potential business constraints on a 5-point Likert scale that corresponds to integer values of 0-4, and simple averages are then used to calculate country averages.

2/ A lower value corresponds to higher importance for the surveyed business unit.

Figure 4. Per-capita GDP growth and total investment, 2000-2005



Sources: Eurostat (2007) and IMF (2006a)

Note: Data refer to averages by country in 2000-2005. The efficiency frontier is indicative of the highest per capita GDP growth that can be achieved at a given level of total investment.

3. Fiscal adjustment and public investment in the new member states

How much fiscal adjustment has taken place in the NMS and how has it been achieved? While the experience has been uneven, many of the NMS now face fairly high levels of public debt and heightened macroeconomic vulnerability indicators. The need to bring down fiscal deficits and public debt has constrained the room for higher public investment. Experiences from around the world suggest that, often, governments try to achieve adjustment by increasing taxes and cutting public investment, rather than curtail current spending (IMF 2005). However, when fiscal adjustment relies on measures of poor quality, growth prospects may be compromised. This section looks particularly at whether the NMS have relied on public investment cuts to implement fiscal adjustment.

Recent fiscal outcomes in the NMS have varied significantly, with some countries implementing sizable fiscal adjustment. Fiscal balances in all countries displayed considerable vulnerability to the large recession that followed the Asian crisis in 1997. However, developments have differed substantially since the early 2000s (Table 3). The Baltic countries made significant progress in reducing their fiscal deficits between 1999 and 2006. For instance, Estonia and Latvia registered a budget surplus in 2006. In contrast, the CEEs have shown more inertia in improving their budgetary positions. In particular, Hungary stands out as the NMS with the largest fiscal imbalances measured by either fiscal deficit or public debt levels, followed by Poland. Other CEEs have been able to bring deficit levels and debt levels to below the reference value under the Stability and Growth Pact. Of the most recent NMS, Bulgaria achieved strong fiscal outcomes over the last few years, while Romania posted fiscal deficits but still had comparably lower debt levels (Figure 5).

The Baltic countries have greatly improved budgetary positions, most Central and Eastern European countries less so.

Since the 1990s, expenditure and revenue reforms have played different roles in fiscal retrenchment efforts. During the 1990s, fiscal adjustment in the NMS relied primarily on expenditure cuts. Several NMS pursued tax reforms that lowered the overall tax burden, and general government revenues have declined in the Baltic countries and Slovakia to around 35 percent of GDP. Expenditures in these

**Table 3. General government revenue, expenditure, fiscal balance, and debt in NMS 1/
(in percent of GDP)**

Country	Fiscal indicator	1998	1999	2000	2001	2002	2003	2004	2005	2006
Bulgaria	Total revenue	..	..	..	..	38.9	40.0	41.4	41.4	39.9
	Public investment 2/	3.2	3.9	3.7	3.5	2.7	2.5	2.7	3.4	3.7
	Other expenditure 3/	..	..	..	..	36.5	38.4	36.6	36.1	32.9
	Fiscal balance 4/	1.7	0.4	-0.5	0.2	-0.2	-0.9	2.2	1.9	3.3
	Gross debt	79.6	79.3	73.6	66.2	54.0	45.9	37.9	29.2	22.8
Czech Republic	Total revenue	38.2	38.6	38.1	38.7	39.5	40.7	41.0	40.1	39.2
	Public investment 2/	4.2	3.3	3.6	3.5	3.9	4.5	4.8	4.9	5.0
	Other expenditure 3/	39.0	39.0	38.2	41.0	42.4	42.8	39.0	38.7	37.1
	Fiscal balance 4/	-5.0	-3.7	-3.7	-5.7	-6.8	-6.6	-2.9	-3.5	-2.9
	Gross debt	12.9	13.4	18.2	26.3	28.5	30.1	30.7	30.4	30.4
Estonia	Total revenue	39.1	39.1	36.2	35.0	36.0	36.4	35.9	35.4	36.6
	Public investment 2/	4.7	4.2	3.8	4.1	4.9	4.2	3.4	3.7	4.5
	Other expenditure 3/	34.8	38.6	32.7	31.0	30.7	30.4	30.7	29.7	28.5
	Fiscal balance 4/	-0.4	-3.7	-0.2	-0.1	0.4	1.8	1.8	1.9	3.6
	Gross debt	5.6	6.0	4.7	4.7	5.6	5.7	5.2	4.4	4.1
Hungary	Total revenue	44.7	44.4	43.6	43.2	42.4	41.9	42.4	42.1	42.6
	Public investment 2/	3.4	2.9	3.2	3.7	4.9	3.5	3.5	4.0	4.4
	Other expenditure 3/	49.4	47.0	43.3	43.6	46.4	45.6	45.4	45.9	47.5
	Fiscal balance 4/	-8.2	-5.5	-3.0	-4.1	-8.9	-7.2	-6.4	-7.8	-9.3
	Gross debt	61.9	61.2	55.4	52.2	54.0	58.0	59.4	61.7	66.0
Latvia	Total revenue	40.0	36.6	34.6	32.5	33.4	33.2	34.7	35.2	37.4
	Public investment 2/	1.4	1.5	1.3	1.1	1.3	2.4	3.1	3.3	3.4
	Other expenditure 3/	39.2	40.5	36.0	33.5	34.3	32.4	32.7	32.2	33.6
	Fiscal balance 4/	-0.6	-5.3	-2.8	-2.1	-2.3	-1.6	-1.0	-0.2	0.4
	Gross debt	9.8	12.6	12.9	15.0	13.5	14.4	14.5	12.0	10.0
Lithuania	Total revenue	37.4	37.3	35.9	33.2	32.9	32.0	31.8	33.1	33.3
	Public investment 2/	2.5	2.6	2.4	2.2	2.9	3.0	3.4	3.5	4.2
	Other expenditure 3/	37.9	37.5	36.7	34.6	31.9	30.2	30.0	30.1	29.4
	Fiscal balance 4/	-3.1	-2.8	-3.2	-3.6	-1.9	-1.3	-1.5	-0.5	-0.3
	Gross debt	16.5	23.0	23.8	22.9	22.2	21.2	19.4	18.6	18.2
Poland	Total revenue	40.1	40.4	38.1	38.6	39.2	38.4	36.9	39.0	39.4
	Public investment 2/	3.9	3.5	2.4	3.4	3.4	3.3	3.4	3.4	4.1
	Other expenditure 3/	40.4	39.2	38.7	40.4	40.8	41.3	39.2	39.9	39.2
	Fiscal balance 4/	-4.3	-2.3	-3.0	-5.1	-5.0	-6.3	-5.7	-4.3	-3.9
	Gross debt	39.1	40.3	36.8	36.7	39.8	47.1	45.7	47.1	47.8
Romania	Total revenue	44.2	48.0	43.8	36.7	37.6	32.1	31.1	32.4	30.1
	Public investment 2/	1.9	2.1	1.9	2.4	3.1	3.2	3.0	3.8	2.9
	Other expenditure 3/	43.3	44.5	38.7	36.4	36.5	30.4	29.6	29.9	29.1
	Fiscal balance 4/	-1.0	1.4	3.2	-2.1	-2.0	-1.5	-1.5	-1.4	-1.9
	Gross debt	17.8	24.2	22.7	..	23.8	21.5	18.8	15.8	12.4
Slovakia	Total revenue	40.5	40.8	39.8	36.8	35.7	37.5	35.4	35.2	33.9
	Public investment 2/	3.9	2.9	2.8	3.1	3.2	2.6	2.4	2.1	2.2
	Other expenditure 3/	41.4	44.3	48.9	40.2	40.1	37.7	35.4	35.9	35.1
	Fiscal balance 4/	-4.8	-6.4	-11.8	-6.5	-7.7	-2.8	-2.4	-2.8	-3.4
	Gross debt	34.0	47.2	49.9	49.2	43.3	42.4	41.5	34.5	30.7
Slovenia	Total revenue	44.5	44.6	43.6	44.1	44.6	44.4	44.2	44.5	44.1
	Public investment 2/	3.0	3.5	3.2	3.3	3.0	3.3	3.5	3.2	3.7
	Other expenditure 3/	43.9	44.3	44.2	44.9	44.1	43.8	43.0	42.8	41.6
	Fiscal balance 4/	-2.5	-3.1	-3.8	-4.0	-2.5	-2.7	-2.3	-1.5	-1.2
	Gross debt	23.6	24.9	27.4	28.4	29.1	28.6	28.9	28.4	27.8

Source: Eurostat (2007)

Notes: 1/ Data are based on statistics for the general government as defined in the European System of Accounts (ESA) 1995.

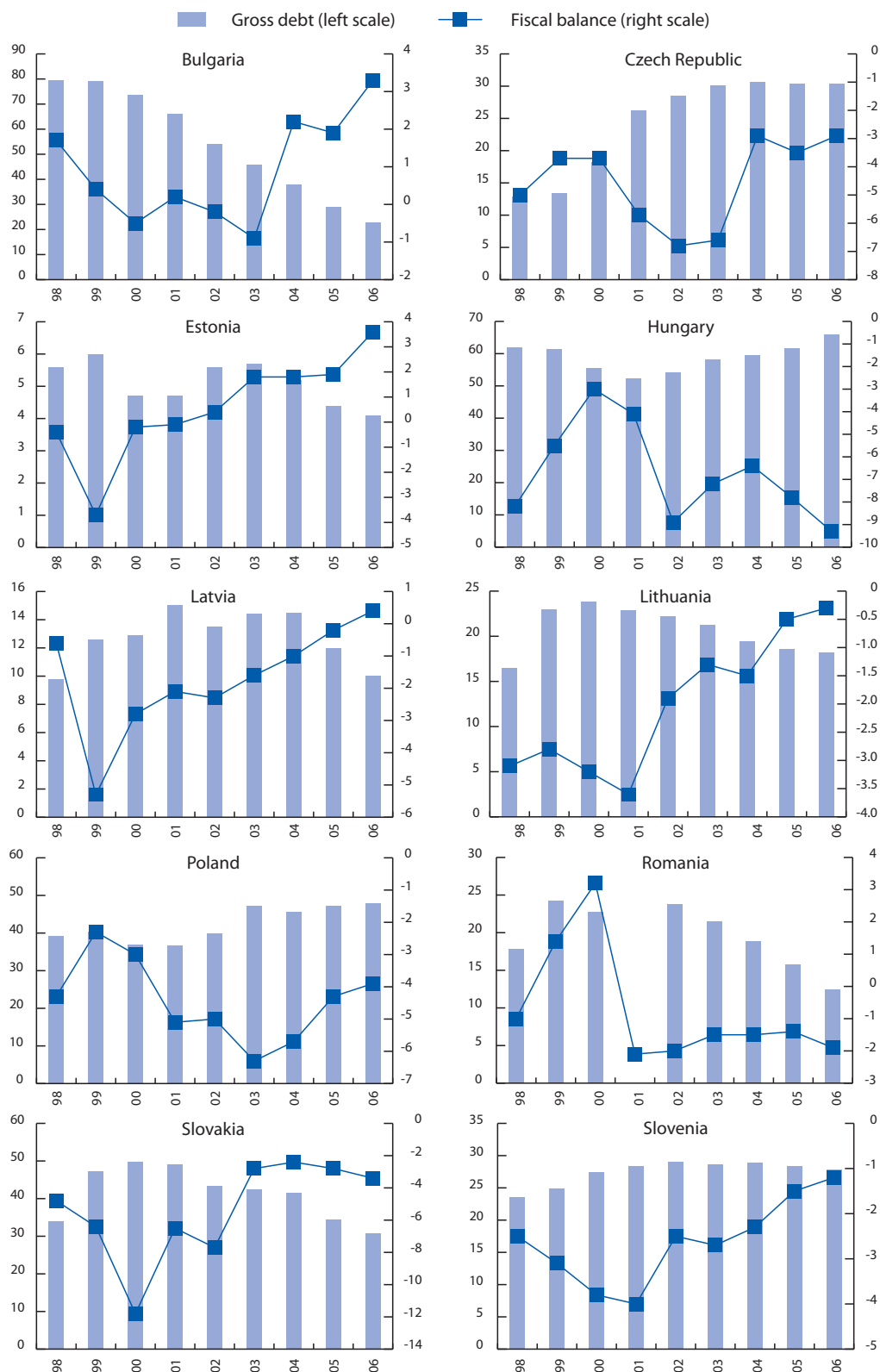
.. indicates that data are not available.

2/ Public gross fixed capital formation.

3/ Total expenditure excluding public investment.

4/ Net borrowing/lending.

Figure 5. Fiscal balance and government debt in NMS (in percent of GDP)



Source: Eurostat online database

Note: Data are based on ESA 1995. Gross debt is for the general government level, and fiscal balance refers to net borrowing/lending of the general government.

countries have dropped even more steeply, achieving fiscal adjustment and a lower tax burden at the same time. Since 2001, however, only Romania and Slovakia have implemented expenditure-led fiscal adjustments while revenue increases have contributed to fiscal adjustment in the Czech Republic and Poland.

Fiscal adjustment has not necessarily constrained public investment. While some countries cut public investment to consolidate fiscal positions, others managed to increase public investment levels despite tighter budgets. Table 4 presents changes in the overall balance, revenues, and expenditures, during years of fiscal adjustment in the NMS, defined as those years during which the fiscal balance improved. Among 44 episodes of fiscal adjustment during 1999–2006, only 30 percent included cuts in public investment. In comparison, 53 percent involved revenue increases, and 77 percent cuts in other non-investment expenditures. For example, Slovakia improved its fiscal position through cuts in both investment and other expenditure in 2003–2004, whereas Latvia implemented fiscal consolidation with higher public investment of about 0.5 percent of GDP per year in 2003–2006, supported by much enhanced revenue efforts and cuts in other expenditures. The Czech Republic, Lithuania, and Poland were also successful in both reducing fiscal deficits and increasing public investment.⁵

Furthermore, private investment has boosted total investment in some of the NMS, particularly those with stronger fiscal positions. There are two general patterns (Table 5). In countries with strong fiscal positions and modest debt, private investment has increased and has often more than offset cuts in public investment (e.g., Estonia). In contrast, in countries with sizeable debt and persistent fiscal deficits, private investment has declined considerably in recent years, leading to lower total investment even when public investment increased (e.g., the Czech Republic and Poland). The link between fiscal positions and private investment may be reflective of private sector perceptions of good governance (IMF 2005): Good public governance, as manifested by strong fiscal balances, also translates into lower cost of international financing for the private sector and higher foreign capital inflows (Figure 6). Similarly, pro-growth economic policy reforms have a positive knock-on effect on private investment. For example, Figure 7 shows that, in infrastructure sectors, private investment is positively related to perceived sector reforms in the NMS.

Where fiscal positions were sound, private investment has increased faster and foreign capital has flown in more readily than elsewhere.

It is not surprising then to find also that foreign investment has generally been more forthcoming where fiscal positions are stronger. As shown in Figure 6a, improvements in fiscal positions are generally rewarded by more favourable ratings on sovereign bonds. For example, fiscal consolidations in Lithuania in 2001–2004 and Slovakia in 2003–2005 were accompanied by bond ratings upgrades of about one notch each year. As these ratings are important benchmarks to determine access and cost of financing from the international capital markets to the private sector in the NMS, higher ratings are more likely to attract capital inflows. Figure 6b indeed indicates that net foreign capital inflows are positively associated with the fiscal balances in the NMS, offering countries an important source to finance growth notwithstanding low national savings.

⁵ These facts are consistent with recent findings on fiscal rules for public investment in Europe. For example, Turrini (2004) argues that higher fiscal balances may help to create space for public investment, and Perée and Vällilä (2005) find no evidence of a negative long-run impact of fiscal rules on public investment.

Table 4. Fiscal adjustment and public investment in NMS (in percent of GDP) 1/

Country	Years with higher fiscal balance	Changes in fiscal balance	Changes in total revenue	Changes in public investment	Changes in other expenditure
Bulgaria 2/	2004	3.1	1.4	0.2	-1.8
	2006	1.4	-1.5	0.3	-3.2
Czech Republic	1999	1.3	0.4	-0.9	0
	2003	0.2	1.2	0.6	0.4
	2004	3.7	0.3	0.3	-3.8
	2006	0.6	-0.9	0.1	-1.6
Estonia	2000	3.5	-2.9	-0.4	-5.9
	2001	0.1	-1.2	0.3	-1.7
	2002	0.5	1	0.8	-0.3
	2003	1.4	0.4	-0.7	-0.3
	2005	0.1	-0.5	0.3	-1
Hungary	2006	1.7	1.2	0.8	-1.2
	1999	2.7	-0.3	-0.5	-2.4
	2000	2.5	-0.8	0.3	-3.7
	2003	1.7	-0.5	-1.4	-0.8
Latvia	2004	0.8	0.5	0	-0.2
	2000	2.5	-2	-0.2	-4.5
Lithuania	2001	0.7	-2.1	-0.2	-2.5
	2003	0.7	-0.2	1.1	-1.9
	2004	0.6	1.5	0.7	0.3
	2005	0.8	0.5	0.2	-0.5
	2006	0.6	2.2	0.1	1.4
	1999	0.3	-0.1	0.1	-0.4
Poland	2002	1.7	-0.3	0.7	-2.7
	2003	0.6	-0.9	0.1	-1.7
	2005	1	1.3	0.1	0.1
	2006	0.2	0.2	0.7	-0.7
	1999	2	0.3	-0.4	-1.2
Romania	2002	0.1	0.6	0	0.4
	2004	0.6	-1.5	0.1	-2.1
	2005	1.4	2.1	0	0.7
	2006	0.4	0.4	0.7	-0.7
	1999	2.4	3.8	0.2	1.2
Slovakia	2000	1.8	-4.2	-0.2	-5.8
	2002	0.1	0.9	0.7	0.1
	2003	0.5	-5.5	0.1	-6.1
	2005	0.1	1.3	0.8	0.3
	2001	5.3	-3	0.3	-8.7
Slovenia	2003	4.9	1.8	-0.6	-2.4
	2004	0.4	-2.1	-0.2	-2.3
	2002	1.5	0.5	-0.3	-0.8
Slovenia	2004	0.4	-0.2	0.2	-0.8
	2005	0.8	0.3	-0.3	-0.2
	2006	0.3	-0.4	0.5	-1.2
(Mean)					
Czech Republic		1.5	0.2	0.0	-1.3
Estonia		1.2	-0.3	0.2	-1.7
Hungary		1.9	-0.3	-0.4	-1.8
Latvia		1.0	0.0	0.3	-1.3
Lithuania		0.8	0.0	0.3	-1.1
Poland		0.9	0.4	0.1	-0.6
Romania		1.0	-0.7	0.3	-2.1
Slovakia		3.5	-1.1	-0.2	-4.5
Slovenia		0.8	0.1	0.0	-0.7
Group		1.2	-0.2	0.1	-1.7
(Median)					
Czech Republic		1.0	0.3	0.2	-0.8
Estonia		1.0	-0.1	0.3	-1.1
Hungary		2.1	-0.4	-0.3	-1.6
Latvia		0.7	0.2	0.2	-1.2
Lithuania		0.6	-0.1	0.1	-0.7
Poland		0.6	0.4	0.0	-0.7
Romania		0.5	0.9	0.2	0.1
Slovakia		4.9	-2.1	-0.2	-2.4
Slovenia		0.6	0.1	-0.1	-0.8
Group		0.8	0.0	0.1	-1.0

Source: Eurostat (2007)

Notes: 1/ Data are limited to years in which fiscal balances increase compared to the previous year during 1999–2006.

2/ Data are available after 2003.

Table 5. Public and private investment in NMS, 2001–2006 (in percent of GDP)

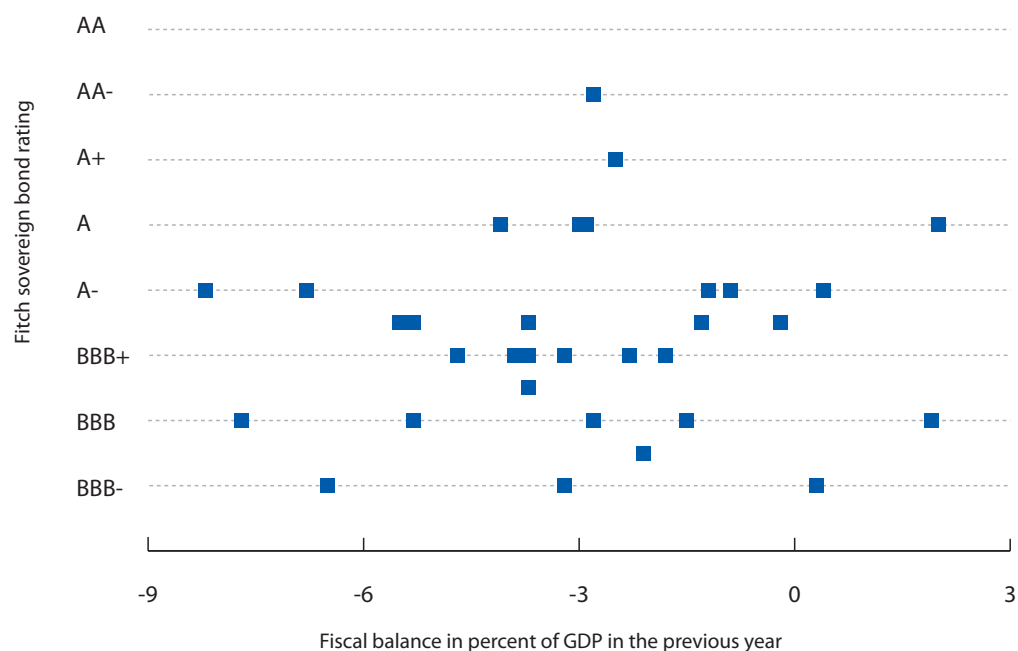
	Total investment		Public investment		Private investment		Changes 1/		
	2001-03	2004-06	2001-03	2004-06	2001-03	2004-06	Total	Public	Private
Estonia	29.4	32.0	4.4	3.9	25.0	28.2	2.6	-0.5	3.2
Latvia	24.4	30.8	1.6	3.3	22.8	27.6	6.5	1.7	4.8
Lithuania	20.5	23.3	2.7	3.7	17.8	19.6	2.8	1.0	1.8
Bulgaria	18.6	23.6	2.9	3.3	15.7	20.4	5.1	0.4	4.7
Czech Republic	27.4	25.1	4.0	4.9	23.4	20.2	-2.3	0.9	-3.2
Hungary	22.7	22.3	4.0	4.0	18.7	18.3	-0.4	-0.1	-0.3
Poland	19.2	18.7	3.4	3.6	15.8	15.1	-0.5	0.3	-0.7
Romania	21.1	23.2	2.9	3.2	18.2	19.9	2.0	0.3	1.7
Slovenia	24.1	25.7	3.2	3.5	20.9	22.2	1.5	0.3	1.3
Slovakia	26.9	25.8	3.0	2.2	24.0	23.5	-1.2	-0.7	-0.4
Memorandum items:									
Euro area 2/	20.4	20.6	2.5	2.5	17.9	18.1	0.2	0.0	0.2
Baltics	24.8	28.7	2.9	3.6	21.9	25.1	4.0	0.7	3.2
CEEs	22.9	23.5	3.3	3.5	19.5	20.0	0.6	0.2	0.4

Source: Eurostat

Notes: 1/ Data refer to changes from 2001-2003 to 2004-2006, and positive values indicate an increase.

2/ Data refer to weighted averages of 12 countries in the Euro area.

Figure 6a. Fiscal balances and sovereign ratings, 2000-2005 1/



Sources: Eurostat (2007), Fitch Ratings (2007), and IMF(2006a)

Note: 1/ Fitch sovereign rating refers to annual average ratings of long-term foreign currency sovereign bonds, and BBB is the minimum rating for investment grade. The rating on sovereign bonds is generally considered a ceiling of ratings for private sector financing in the same country, and a higher rating is associated with lower cost of financing. See IMF (2005) for details.

Figure 6b. Fiscal balances and foreign capital inflows, 2000-2005

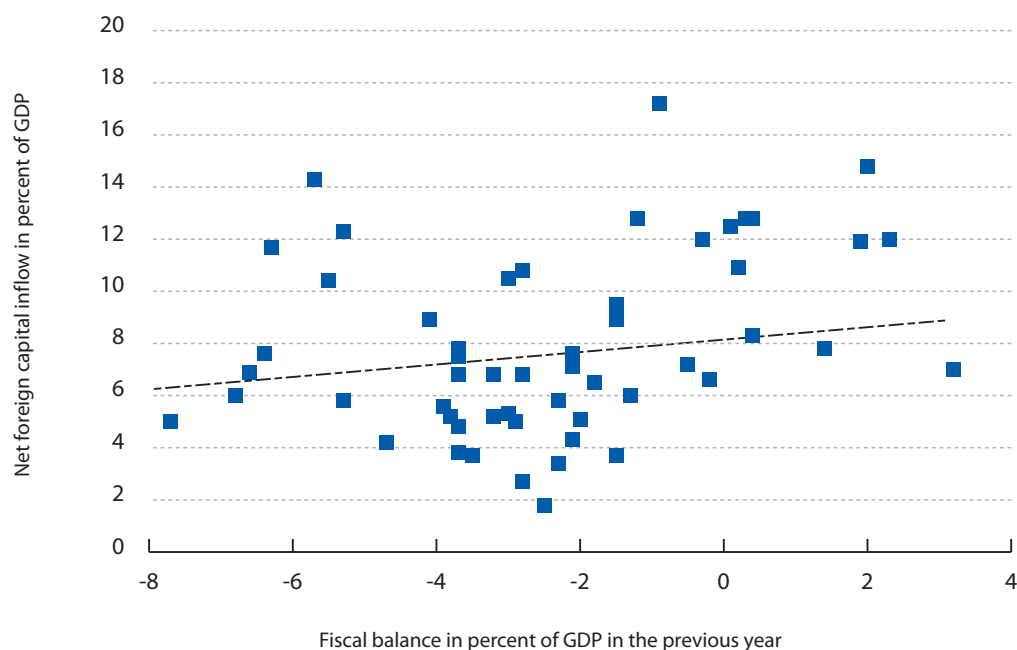
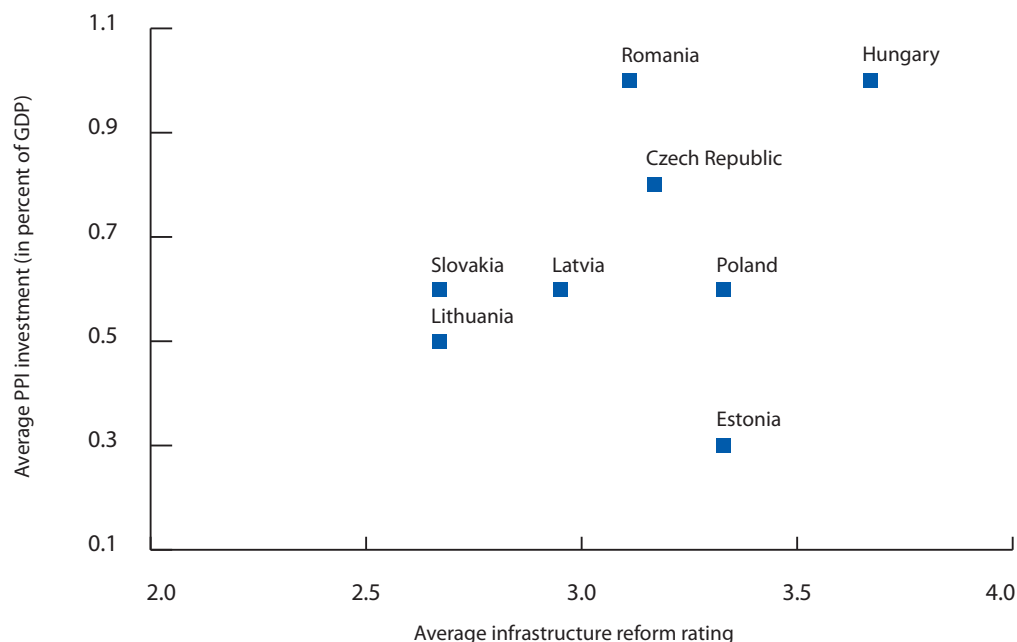


Figure 7. Private infrastructure investment and infrastructure policy ratings



Sources: EBRD (2006) and World Bank (2007)

Note: Private infrastructure investment refers to total contractual commitments in private participations in infrastructure (PPI) projects classified as management and lease contracts, concessions, and greenfield projects, but exclude privatization projects. Data are averages for 2000-2005 for the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, and Slovakia. Infrastructure policy ratings are published by the EBRD to measure country-specific policy progress in infrastructure and range between 1 and 4.33, with higher scores corresponding to higher standards and performance-levels.

4. Infrastructure in the new member states

The usual rationale for raising public investment in NMS has been the need to upgrade infrastructure. Underlying this are concerns that poor infrastructure may become a bottleneck to economic growth (e.g., European Commission 2001). However, “needs” have to be matched with fiscal realities and macroeconomic constraints.

At the start of their transition to market economies, infrastructure networks in most NMS were in a state of serious disrepair. Central planning priorities paid little attention to cost, efficiency, or environmental considerations. But the picture differed from sector to sector. In the telecommunications sector, technology was outdated and households and businesses lacked sufficient access. The railway sector was mostly focused on the needs of heavy industry, e.g., long-distance haulage of raw materials. Investment in roads was limited and use of private cars was discouraged. Finally, water supplies were generally unreliable and of low quality, and waste water disposal was not environmentally friendly (European Bank of Reconstruction and Development (EBRD) 2004).

Since then, important progress has been made. The EBRD indicator of reform in key infrastructure sectors⁶ suggests that all NMS have made considerable progress in reforming infrastructure, but this has not been uniform across countries (Table 6). Overall, Hungary comes closest to standards in advanced countries, with an average indicator of 3.67. Estonia, the Czech Republic, Poland, and Romania, come in second place, while the rest of the NMS are further away from standards in industrialized countries.⁷

Despite progress, infrastructure density is still lower in most new member states than in more advanced European countries.

Despite progress, most NMS lag behind the more advanced European countries in terms of infrastructure. Table 7 presents infrastructure indicators in the NMS and the EU-12 in the telecommunications, energy, and transport sectors. Since the mid-1990s, infrastructure modernization proceeded the fastest in telecommunications, with the average number of phone subscribers in the NMS increasing four-fold in recent years. However, access in telecommunications in NMS remains about half the level in the EU-12. Progress in the energy and road sectors was more heterogeneous across NMS. In energy, rapid increases in generation capacity in the CEEs (except for Poland) compare with less marked improvements in Bulgaria and Romania, and the Baltics. In contrast, the Baltics have made important strides expanding their road networks, followed by the CEEs, while Romania and Bulgaria remain significantly behind.

Estimates of infrastructure investment needs in the region are scarce, but point to large efforts that would be needed. Auer (2004) and Brenck *et al.* (2005) suggest that investments of over EUR 500 billion or about 5 percent of GDP over the next 15 years are required to upgrade infrastructure in the NMS to levels in the old members (Table 8). The sectors requiring the most investment include water and sanitation and energy, accounting for about 60 percent of total investment needs. The modernization of the telecommunications and transportation sectors is likely to require moderate investment, while environmental investment needs appear somewhat less significant.⁸

6 Since the end of the 1990s, the EBRD has produced an indicator to assess the status quo and pace of reform in key infrastructure sectors in transition countries. Key criteria include the path of reform to adjust tariffs, to commercialize, to deregulate markets, and to open them to the private sector. Scores range from 1 (no reform) to 4.33 (advanced country levels).

7 A high rating in infrastructure policy indicates the adoption of good policy and regulatory practices but not necessarily the presence of high-quality infrastructure stock or service.

8 According to estimates by CASE (2005), the environmental investment needs of the EU-8 are estimated at EUR 47-69 billion (Poland 22-45 billion, Hungary 10 billion, and the Czech Republic 9.4 billion).

Table 6: Indicators of infrastructure policy reforms 1/

Country	Sector	2000-04 2/	2005	2006	Sector	2000-04 2/	2005	2006
Estonia	Overall infrastr. reform	3.33	3.33	3.33	Railways	4.20	4.33	4.33
Latvia		2.93	3.00	3.00		3.33	3.33	3.67
Lithuania		2.67	2.67	3.00		2.33	2.33	2.33
Bulgaria		2.93	3.00	3.00		3.26	3.33	3.33
Czech Rep.		3.13	3.33	3.33		2.60	3.00	3.00
Hungary		3.67	3.67	3.67		3.33	3.33	3.33
Poland		3.33	3.33	3.33		4.00	4.00	4.00
Romania		3.07	3.33	3.33		4.00	4.00	4.00
Slovak Re.		2.60	3.00	3.00		2.53	3.00	3.00
Slovenia		2.93	3.00	3.00		3.00	3.00	3.00
Estonia	Electric power	3.27	3.00	3.33	Roads	2.33	2.33	2.33
Latvia		3.07	3.33	3.33		2.33	2.33	2.33
Lithuania		3.07	3.33	3.33		2.33	2.33	2.33
Bulgaria		3.40	3.67	3.67		2.33	2.67	2.67
Czech Rep.		2.93	3.33	3.33		2.93	3.00	3.00
Hungary		4.00	4.00	4.00		3.33	3.67	3.67
Poland		3.20	3.33	3.33		3.20	3.00	3.00
Romania		3.07	3.33	3.33		3.00	3.00	3.00
Slovak Re.		3.40	4.00	4.00		2.33	2.33	2.33
Slovenia		3.00	3.00	3.00		3.00	3.00	3.00
Estonia	Telecoms.	4.00	4.00	4.00	Water and waste water	4.00	4.00	4.00
Latvia		3.00	3.00	3.00		3.26	3.33	3.33
Lithuania		3.33	3.33	3.67		3.26	3.33	3.33
Bulgaria		3.07	3.33	3.33		3.00	3.00	3.00
Czech Rep.		4.00	4.33	4.33		4.00	4.00	4.00
Hungary		4.00	4.00	4.00		4.00	4.00	4.00
Poland		4.00	4.00	4.00		3.26	3.33	3.33
Romania		3.00	3.00	3.33		3.07	3.33	3.33
Slovak Re.		3.06	3.67	3.67		2.53	3.00	3.33
Slovenia		2.87	3.00	3.00		3.33	3.33	3.33

Source: EBRD (2006)

Notes: 1/ Indicators refer to ratings based on judgment of the EBRD's Office of the Chief Economist about country-specific progress in transition. The sector ratings range from 1 to 4.33 with highest scores corresponding to possessing standards and performance typical of advanced industrial economies. The overall ratings refer to average performance across all sectors.

2/ Data refer to simple averages.

Table 7. Infrastructure indicators in NMS and the EU-12 (per 1,000 people)

	Electricity generation (kwh)		Fixed and mobile phone subscribers		Road networks (km)		Internet users	
	1991-1995	1998-2002	1991-1995	1998-2002	1991-1995	1998-2002	1991-1995	1998-2002
Baltic states								
Estonia	7.1	6.2	245.6	740.1	5.3	8.2	10.5	228.5
Latvia	1.7	1.9	261.8	506.5	5.6	22.7	..	68.6
Lithuania	4.6	4.2	235.1	514.6	12.3	19.5	..	64.0
Central and Eastern European countries								
Czech Republic	5.8	6.9	197.9	816.9	5.4	12.4	11.0	121.5
Hungary	3.2	3.6	161.9	714.3	6.5	6.8	2.8	95.3
Poland	3.5	3.7	118.5	413.5	6.2	6.5	2.4	99.2
Slovak Republic	4.5	5.5	173.2	564.6	4.0	6.9	3.2	92.1
Slovenia	6.2	7.0	273.7	925.6	5.7	10.1	14.4	210.7
Recently acceded members								
Bulgaria	4.5	5.1	281.4	485.2	4.0	4.3	0.5	50.9
Romania	2.5	2.4	117.5	297.4	3.4	4.5	0.4	46.1
Memorandum items:								
Group average	4.6	4.9	208.5	649.5	6.4	11.6	7.4	122.5
Baltic states	4.5	4.1	247.5	587.0	7.7	16.8	..	120.3
Central Eastern Europe	4.6	5.3	185.0	687.0	5.6	8.6	6.8	123.7
Recently acceded members	3.5	3.7	199.5	391.3	3.7	4.4	0.4	48.5
EU-12 average	5.5	6.5	473.1	1,119.1	11.1	15.4	10.6	234.9

Source: World Bank (2005)

Note: EU-12 average refers to simple averages of the 12 countries of the Euro area before 2007: Austria, Belgium, Bulgaria, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Spain, and Portugal.

Table 8. Infrastructure investment needs for NMS, 1995-2010

Sector	Reference	Investment needs	
		in EUR billion	in percent of GDP
Roads	Modernization/construction to EU-15 average density	44	0.5
Railways	Modernization/construction to EU-15 average density	37	0.4
Telecoms	Telecom density of 35 mainlines per 100 citizens	63	0.9
Water/Sewage	European standards for collection and treatment	180	1.5
Energy	Network development, oil, gas and coal sector reforms	110	1.4
Environment	EU-Directive Air Pollution and Waste	71	0.3
Sum		505	5.0

Source: Brenck *et al.* (2005)

Most estimates of investment needs have significant shortcomings regarding the concepts and methodologies used. A particular limitation of most estimates of infrastructure investment needs is that they abstract from country-specific resource and absorption capacity constraints (IMF 2005). Therefore, they cannot provide concrete policy guidance on how and within what timeframe to meet these needs. Furthermore, they also cannot distinguish priority needs (*i.e.*, those that address growth bottlenecks) and low-priority needs. Hence, these approaches need to be complemented with assessments of the scope for mobilizing both private and public resources for infrastructure spending on the basis of a macro-fiscal policy framework and a clear prioritization of projects based on their economic and social rates of return.

The appropriate public investment strategy for the NMS will vary from country to country and critically depend on the macro-fiscal environment. In principle, countries have several options for upgrading their infrastructure. These include: raising financing for public investment by borrowing, increasing public saving, and reallocating public spending from other sectors; getting more out of their investments by improving investment planning and project evaluation and implementation procedures; and encouraging private sector investment. These can be classified according to whether they operate primarily through the private sector or the public sector, and the time needed to implement them (IMF 2005) (Table 9).

That said, all EU countries must adhere to the common public deficit and debt ceilings of the Stability and Growth Pact, which limits their room for manoeuvre with regard to public investment. In addition, the particular fiscal and macroeconomic environment in the NMS further constrains some of the options for increasing public investment. Countries with stronger fiscal positions, like the Baltics, usually have more policy flexibility, although they may be constrained by other considerations (*e.g.*, an overheating economy). In contrast, countries with large fiscal deficits and debt levels, such as Hungary, would generally need to match increases in public investment with similar increases in public saving, which will need to be driven by reforms aimed at limiting current expenditures given an already large tax burden.

Macro-fiscal frameworks and social-returns analyses should be used to select projects and to decide when and how to implement them.

Table 9. Possible policy instruments to help increase total infrastructure investment

	Private Investment	Public Investment
Short- to Medium-Term	Use public-private partnerships.	Reallocate public expenditure.
	Provide government guarantees.	Implement tax policy measures. Relax fiscal targets, financed by debt or the sale of state assets.
Medium- to Long-Term	Implement improvements in market- supporting institutions that help strengthen the rule of law, property rights, and the regulatory framework.	Carry out structural reforms, incl. civil service reform and social security reform to help reduce current expenditure.
	Deepen financial markets.	Improve tax administration and expenditure management systems to improve efficiency.

Source: IMF (2005)

5. New sources of infrastructure financing in the new member states

5.1. The role of EU support mechanisms

EU funds provide additional resources but they tilt spending toward EU projects and pose unique challenges to new member states.

In this general context, a unique challenge for the NMS is posed by the availability of EU funds for infrastructure investment. EU financing schemes provide additional resources for the NMS to upgrade infrastructure, but they also alter government spending patterns toward EU priorities and challenge fiscal, macroeconomic, and absorptive capacities. For example, EU funds provide additional resources to the NMS, but may adversely affect fiscal balances in the short run, particularly due to additionality requirements, which usually lead countries to increase spending on programmes financed with EU support. As most countries have limited room to accommodate additional spending through higher deficits, EU funds are likely to have a significant effect on spending allocation patterns. In addition, the use of EU funds poses challenges from a public expenditure management perspective, requiring countries to step up efforts to effectively absorb the increased allocations.

EU accession provided the NMS with access to different types of EU funds. These funds serve three main objectives: Income convergence, agricultural support, and the development of internal market institutions. EU funds are significant from the point of view of the NMS. In the last 15 years, nearly EUR 30 billion has been transferred to the NMS; and, under the new financial perspective 2007-2013, EU transfers would be notably larger than in the pre-accession and 2004-2006 periods. Net transfers (taking into account the NMS contributions to the EU budget) are expected to almost triple from an average of 1 percent of GDP in 2004-2006, with smaller net transfers observed in the beginning of the period and with poorer countries expected to receive more (European Commission 2006) (Table 10).

Table 10. EU funds for NMS, 2004-2013

	2004	2005	2006	2007	2008	2009	2010	2011	2012 /2	2013 2/
Bulgaria 1/	..	..	..	1,130	1,543	1,872	1,766	1,838	1,951	2,060
Romania 1/	..	..	..	5,113	5,947	6,035	5,645	5,820	5,989	6,251
Czech Republic	1,627	1,915	2,028	3,998	4,140	4,255	4,413	4,558	4,694	4,826
Estonia	400	428	474	238	557	754	824	699	629	1,160
Hungary	1,764	2,107	2,377	4,090	4,270	4,465	4,681	4,891	5,116	5,351
Latvia	665	706	699	720	757	794	842	885	930	974
Lithuania	984	1,124	1,182	1,326	1,383	1,441	1,518	1,593	1,669	1,745
Poland	6,584	8,165	9,062	11,118	11,711	12,300	12,587	13,177	13,753	14,331
Slovakia	946	1,057	1,187	1,825	1,907	1,995	2,101	2,208	2,315	2,421
Slovenia	473	527	527	788	789	788	797	803	809	814
Bulgaria 1/	..	..	..	4.7	5.9	6.5	5.7	5.4	..	..
Romania 1/	..	..	..	4.8	4.9	4.4	3.7	3.4	..	..
Czech Republic	1.9	1.9	1.8	3.3	3.2	3.0	2.9	2.8	..	..
Estonia	4.4	4.1	3.9	1.8	3.7	4.5	4.5	3.5	..	..
Hungary	2.2	2.4	2.9	4.8	4.7	4.7	4.7	4.7	..	..
Latvia	6.0	5.6	4.6	4.0	3.7	3.4	3.3	3.2	..	..
Lithuania	5.4	5.5	5.1	5.2	4.9	4.7	4.5	4.4	..	..
Poland	3.2	3.4	3.4	4.0	4.0	4.0	3.9	3.8	..	..
Slovakia	2.8	2.8	2.8	3.8	3.6	3.4	3.3	3.1	..	..
Slovenia	1.8	1.9	1.9	2.7	2.6	2.4	2.3	2.2	..	..

Sources: IMF (2006a, b, c, d; and 2007) and Rosenberg and Sierhej (2007)

Notes: 1/ " " indicates data are not available.

2/ GDP projections for 2012 and 2013 are not available.

For infrastructure development, Structural and Cohesion Funds are the most important EU sources. EU funds most relevant to the provision of infrastructure are: (i) the Structural Funds (particularly the European Regional Development Fund and the European Social Fund); and (ii) the Cohesion Fund (Box 1 and Annex).⁹ Both are grouped in the EU terminology under the heading “structural actions” and are aimed at fostering income convergence. Therefore, they account for a larger share of EU commitments in the less wealthy NMS. Structural and Cohesion Funds are set to increase substantially under the new EU financial perspective for 2007–13. The committed amounts for EU transfers under the new EU financial perspective range from 1.5 percent of GDP in Slovenia to over 3 percent of GDP in Hungary.

EU funds require domestic co-financing and additionality. Depending on the domain, EU funds can be used to finance up to 75-85 percent of a project. The rest may come from domestic public or private sources.¹⁰ Co-financing as such does not necessarily have an adverse impact on the budget since resources can be reallocated from existing budget lines. This is not possible, however, for Structural Funds, which are subject to additionality rules. These require that spending in a certain category, including co-financing, be higher than the average spending in the preceding two years. A similar additionality requirement does not exist for the Cohesion Fund, internal policies, or transitional expenditure.

Various empirical studies confirm that EU funds lead to ‘fiscal drag’ due to co-financing and additionality rules.

Although each NMS is a net receiver of EU transfers, the net impact on the country’s fiscal position depends on the substitution between transfers and existing expenditures. EU transfers impact both the revenue and the expenditure side of the budget. The net effect will critically depend on how much national spending can be substituted with EU-financed support. Some argue that EU transfers mainly lead to the restructuring of the national budgets because EU funding replaces existing national expenditure. For example, Hallet and Keereman (2005) estimate that, in 2004–06, EU transfers raised fiscal balances in NMS by 0.5 percent of GDP on average. Others, however, contend that co-financing requirements lead to additional spending and therefore may result in “fiscal drag.” For instance, recent IMF country reports for several NMS suggest a negative net budget impact, with estimates ranging from -0.1 percent of GDP in Romania to -2.6 percent of GDP in Bulgaria in 2007 (IMF 2006b, 2006c, 2006d, and 2007). Sommer (2003) and Kopits and Székely (2002) also estimate that the fiscal impact would be negative. More recently, Rosenberg and Sierhej (2007) undertook the first ex-post assessment, and concluded that EU funds may have led to a fiscal drag of about 0.5 percent of GDP. For some NMS (e.g., Hungary and Slovakia), this is the first study that uses actual post-accession budget data.

In addition to their net fiscal impact, EU funds are likely to impact expenditure allocation patterns, with spending on EU programmes taking priority over domestically financed projects. This results from both the need to make room for co-financing requirements under tight fiscal budgets, and from additionality rules, which will necessarily displace other spending under a fixed expenditure envelope. In effect, *ex-ante* additionality tables for Structural Funds for the 2004-2006 period suggest that expenditure composition would be affected. Figure 8 suggests that the share of infrastructure spending in total spending would actually decline, with increasing allocations toward

9 Some countries also continue to have access to the pre-accession funds PHARE and ISPA, which also foster infrastructure development. The discussion in this section focuses only on EU funds available after accession.

10 The European Commission (2006) estimates that co-financing in 2004 amounted to about 0.3 percent of GDP in 2004 for the NMS, ranging from 0.1 percent of GDP in the wealthier NMS (Slovenia and Malta) to 0.6 percent of GDP in the poorer Baltic States that receive relatively more EU assistance.

Box 1. EU funding relevant to infrastructure development

Funds for Objective 1a: Competitiveness for Growth and Employment

The European Development Fund (ERDF) and the European Social Fund (ESF) are the key financing instruments for programmes under this heading, and many programmes are relevant for infrastructure development.

- *Eligibility:* All EU member states and sub-national regions
- *Project financed:* Infrastructure projects covered by the defined scope of the relevant programmes, such as the Trans-European Networks in energy, telecom, and transport, Marco Polo II (environment-friendly transport), the 7th Research Framework Programme (including R&D infrastructure), and CIP (including energy).
- *Grant financing:* Variable, depending on the project type and the income of the hosting countries or regions, but generally up to 50 percent of total eligible expenditure
- *Total budget available:* About EUR 40 billion for infrastructure related programmes (2007-2013)

Structural Funds

Four types of structural funds were established to support structural economic and social development. The ERDF and ESF are the two types most relevant for infrastructure, and also the only two remaining structural instruments in the 2007-2013 framework.

- *Eligibility:* All EU member states and sub-national regions can qualify for some type of structural funding.
- *Projects financed:* The ERDF finances productive investment for more jobs, infrastructure, and small and medium-sized enterprises. The ESF funds programmes to develop human resource and labour market, such as vocational training, education and careers advice, and entrepreneurship support.
- *Grant financing:* Variable, depending on the income of the hosting countries or regions, but generally up to 85 percent of total eligible expenditure.
- *Total budget available:* EUR 195 billion (2000-2006); EUR 278 billion (2007-2013)

Cohesion Fund

The Cohesion Fund was established in 1993 to complement the structural funds. It helps less prosperous Member States reduce economic and social disparities in order to strengthen cohesion and solidarity in the EU, and mainly finances projects in environmental and transport infrastructure.

- *Eligibility:* Member states with per capita GNI (measured in purchasing power parities) below 90 percent of the EU average and a programme designed to fulfil the conditions of economic convergence. The initial recipients are Ireland, Greece, Spain, and Portugal, but Ireland no longer qualifies since 2004. The eligibility also extends to the 10 new members joined in May 2004 and to Bulgaria and Romania joined in January 2007.
- *Projects financed:* Projects in environmental or transport infrastructure. Energy efficiency or renewable energy projects may also qualify in 2007-2013.
- *Grant financing:* Up to 85 percent of the total eligible expenditure
- *Total budget available:* EUR 18 billion (2000-2006); EUR 70 billion (2007-2013)

Sources: European Commission (2005a, 2005b)

programmes for the production environment.¹¹ For 2007-13, however, there has been a reorientation of expenditure, particularly in favour of policies aimed at growth and employment, with resources for transport and energy increasing by nearly 139 percent (Box 2). These changes would be consistent with previously identified investment needs.¹²

In some new member states there is a serious lack of administrative absorption capacity, which could jeopardize planned increases in infrastructure investment.

The impact, however, will not be very evident until the NMS step up absorption of EU funds. As noted by Rosenberg and Sierhej (2007), absorption of Structural and Cohesion Funds has picked up only slowly in some countries. Demand is high and the contracting of funds already committed under the 2004-2006 financial perspective is proceeding swiftly. Key bottlenecks come from limited administrative capacities for handling (i) project supervision, (ii) efficient implementation, and (iii) co-financing requirements after the submission of proper documentation. Increased allocations under the new financial perspective for 2007-13 are likely to pose additional challenges. In particular, they require an acceleration of past absorption rates if funds are not to be de-committed under the n+ rules, which stipulate that if a country fails to use the allocated EU fund within a certain period after the year in which it was committed, it will lose such unused allocation.

Box 2. Changes in expenditure orientation in the new EU financial perspective

Under the new EU financial perspective for 2007-2013, there is a reorientation of expenditure in favour, in particular, of policies aimed at growth and employment. Main changes for 2007-2013 compared to 2000-2006 are as follows:

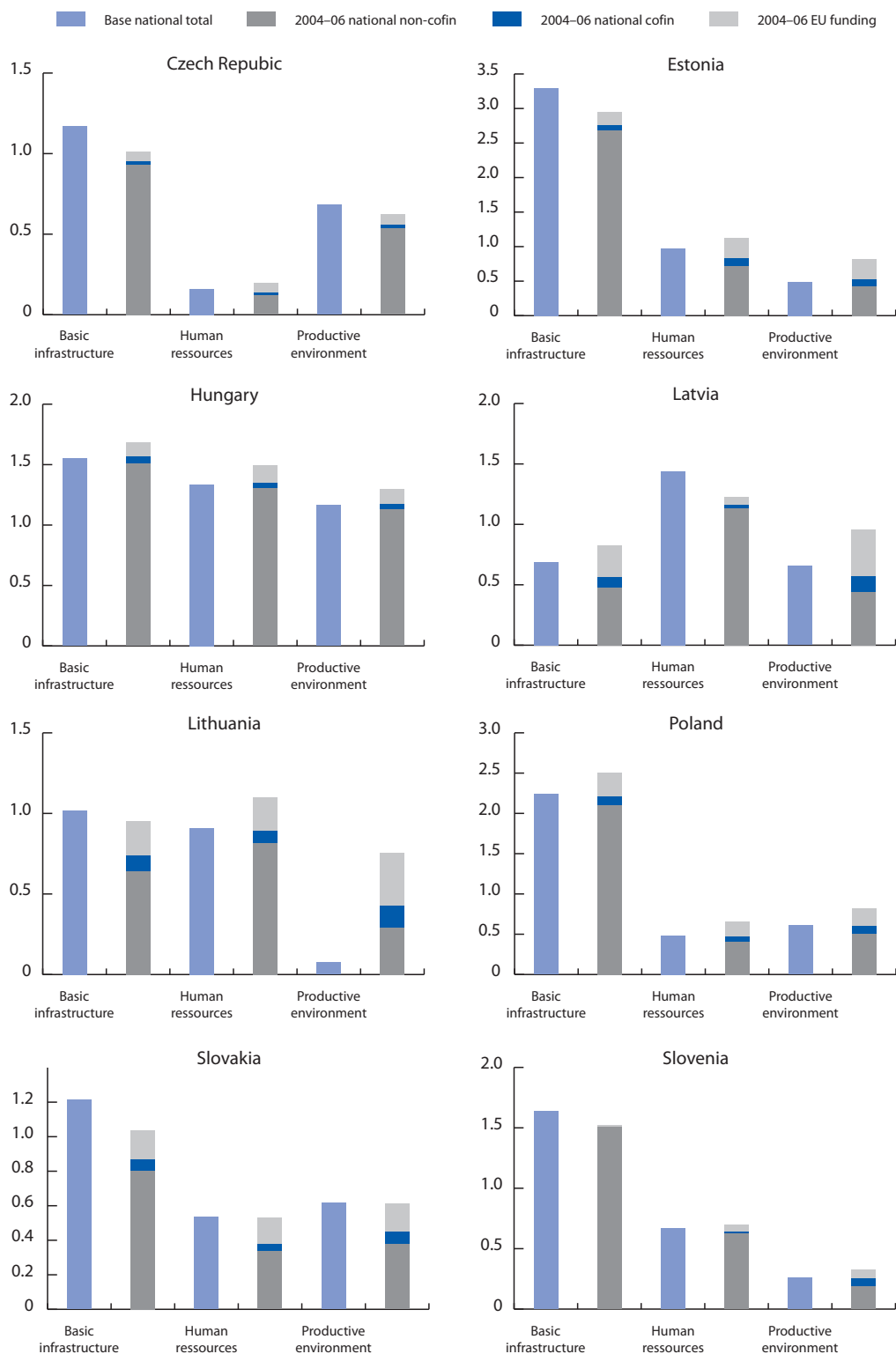
- 69 percent increase for Competitiveness for growth and employment (sub-heading 1a), including:
 - 139 percent increase for transport and energy
 - 81 percent increase for environment-friendly transport (Marco Polo II)
 - 75 percent increase for research (7th Research Framework Programme)
 - 60 percent increase for the Competitiveness and Innovation Programme (CIP)
 - 52 percent increase for knowledge/training (Life Long Learning and Erasmus Mundus programmes)
- 21 percent increase for Cohesion for growth and employment (sub-heading 1b), including:
 - 11 percent increase for structural funds
 - 74 percent increase for the Cohesion Fund
- 8 percent decrease for the Preservation & management of natural resources (heading 2)
- 78 percent increase for Citizenship, freedom, security and justice (heading 3)
- 8 percent increase for the EU as a global player (heading 4)

Source: European Commission (2005b)

11 Basic infrastructure includes sectors such as transport, telecommunication, energy, etc.; human resources includes sectors such as education, training, and research and development; and production environment includes sectors such as agriculture, industry and services, and tourism.

12 Discussions with the European Commission on the specific country priorities regarding the use of these funds are based on the National Strategic Reference Frameworks prepared by countries and sent to the European Commission.

Figure 8: Additivity and Structural Funds, 2004-06 (in percent of GDP)



Sources: European Commission (2006) and IMF(2006a)

Note: Data only cover allocations in three categories, and the time frames for the allocations referred to as base national total in the graphs differ slightly due to data availability: Simple averages in 2001-02 for Czech Republic, Hungary, Lithuania, and Slovenia; and simple averages in 2000-02 for Estonia, Latvia, Poland, and Slovakia.

5.2. Public-private partnerships

Another challenge for fiscal and macroeconomic policy in the NMS is the increasing use of PPPs in infrastructure investment. PPPs refer to arrangements in which the private sector supplies infrastructure assets and services traditionally provided by the government. Most PPP definitions point to three key characteristics: (i) private execution and financing of public investment; (ii) an emphasis on both investment and service provision by the private sector; and (iii) risk transfer from the government to the private sector. The World Bank (2007) reports that annual total investments in PPP infrastructure projects have increased from USD 29 billion in 2001–03 to USD 44 billion in 2004–06 on average in NMS.¹³

PPPs offer new opportunities to finance public infrastructure with potential efficiency gains. It is often argued that, through private-sector management and innovation, as well as more optimized risk allocation, PPPs provide better value-for-money than public procurement of the same assets and services. Yet, the delivery of net benefits in PPPs requires sufficient efficiency gains to cover (i) the typically higher private-sector borrowing costs; and (ii) the significantly higher transaction costs,¹⁴ which are passed on to the government.

PPPs offer new opportunities to finance public infrastructure and enhance efficiency but they generate substantial fiscal risks.

PPPs usually also generate substantial fiscal risks. PPPs can be used to move public investment off budget and debt off the government balance sheet by financially constrained governments without value for money consideration. In particular, NMS may have an incentive to use PPPs solely to by-pass fiscal controls due to the constraints of the Stability and Growth Pact and the lack of strict rules in accounting and reporting. But even if not recorded immediately in deficits and debt levels, PPPs do create future liabilities and do not alleviate the intertemporal budget constraints unless they generate net efficiency gains or facilitate additional resource mobilization, such as through user fees. Fiscal risks can be compounded further by inappropriate institutional arrangements and inadequate government expertise to identify, quantify, and manage the complexities involved in PPPs. As a result, governments can end up facing large fiscal costs down the road (Box 3).

Reaping the benefits and managing fiscal risks from PPPs requires a sufficiently strong legal and institutional framework. Clearly, political commitment and good governance would be overarching conditions for the success of PPPs, while pervasive corruption would be a serious obstacle. Furthermore, fiscal risks from PPPs are more likely to arise when investment projects are of poor quality; the legal and fiscal institutional frameworks are weak; and PPP accounting and reporting systems do not transparently disclose their fiscal implications. Hence, reaping the potential benefits of PPPs (and minimizing their fiscal risks) requires governments to strengthen the overall framework for public investment planning; develop the legal and institutional framework to handle PPPs; and implement transparent accounting and reporting (see Corbacho and Schwartz 2008 for a full discussion of fiscal risks and PPPs).

First, PPP projects should be integrated with the government's investment strategy, its medium-term fiscal framework, and the budget cycle. PPP projects should be part of the government's investment strategy within a medium- to long-term budget framework and be pursued only when they offer value for money compared to standard public procurement. This will typically involve

13 Data refer to total annual investment committed at contract signing for infrastructure projects that resemble PPPs on the basis of some key characteristics (see World Bank 2007 for details).

14 Higher transaction costs arise from the complexity of PPP contracts compared to traditional public procurement. Recent EIB studies have shown that total transaction costs (bidding and negotiation) during the procurement stage average 10 percent of a project's capital value. See Dudkin and Väilä (2005). Higher transaction costs led the United Kingdom to set a floor on the size of PPP projects of £21 million. Brazil's PPP law also sets a floor on the size of PPPs.

Box 3. PPPs and fiscal risks: Selected experiences in the highway sector in NMS

Fiscal risks in the implementation of PPPs in the highway sector have already manifested themselves in several NMS. One problem that has plagued PPP implementation in this sector is related to overoptimistic demand projections. The upward bias in projections is partly due to the inherent technical difficulty of projecting traffic flows. However, moral hazard is also likely to play a role, since bidders have an incentive to overestimate demand and promise low tolls, while counting on renegotiations once the contract has been awarded because infrastructure projects are often too important to fail. Limited government capacity in evaluating PPP proposals and a the lack of a clear PPP legal framework often imply costly renegotiations for the government.

The experience of Hungary illustrates some of the problems that can result from overly optimistic traffic forecasts, overestimation of users' willingness to pay, and inefficient risk allocation. Hungary's M1 Highway PPP came to be heralded as the Euromoney magazine "finance project of the year 1995." It quickly became clear that traffic forecasts had been too optimistic. There was a strong diversion of traffic to a toll-free parallel road. Moreover, several litigation procedures were initiated against the consortium holding the concession. By the time construction ended, the private partner had suffered important financial losses. In 1999, the project was renationalized. Similarly, in the case of the M5 Highway, also a PPP, the original contract was renegotiated in 1995, only a year after it was signed, to provide minimum revenue guarantees. When the first stretches of the M5 were opened, traffic was at 85 percent of the original forecast, requiring compensation from the budget. The contract was renegotiated again in 1997 with the government fully assuming the traffic risk.

Poland's experience with PPP projects in the highway sector has also been mixed. A 150 Km stretch of the A2 highway, for example, was awarded in 2000 as a 40-year concession including the right to levy tolls. However, demand was lower than expected, as most freight transporters bypassed the tolled stretch of the highway. This situation led the government and the concessionaire to negotiate compensation payments. Similarly, a 35-year concession for a 152 kilometres stretch of the A1 highway – which was awarded in 1997 – did not reach financial close, leading to the concessionaire's request for governmental support for the project.

Another example of the fiscal risks involved in PPP implementation is provided by the Czech Republic, where several attempts to implement PPPs in the highway sector have failed. An early attempt to implement a toll-based concession for the D5 highway (from Prague to the German border) was abandoned as it became evident during the tendering process in 1993 that demand for the toll road would be too low to ensure cost recovery. In 2001, the government directly awarded a concession for a 80 Km long stretch of the D47. However, criticism of the direct concession award and overpriced remuneration led to cancellation of the contract. As a consequence, the government was forced to pay about EUR 20 million for breach of contract.

Source: Based on Brenck *et al.* (2005)

a first-stage decision on whether a particular project is worthwhile based on standard project appraisal techniques such as cost benefit analysis, and a second-stage decision on whether the project should be undertaken as a government investment or as a PPP. To ensure full accounting of their fiscal implications, PPP projects should not be allowed to move forward outside the regular budget cycle that governs other investment projects.

Governments should first see if a project is worthwhile and only then decide whether to undertake it as a PPP.

In this context, public investment frameworks need to be strengthened to be conducive to successful PPPs. In most NMS, public investment planning is still not embedded in a medium- to long-term budget framework; a full-fledged framework would help investment planning and prioritization and facilitate the development of good PPPs. In addition, NMS also need to improve technical aspects of investment planning and evaluation: The experience indicates that tools for evaluating costs and benefits are often not applied appropriately. In some cases, cost benefit analysis and value for money assessments are carried out only after the decision to go ahead with the PPP project has been taken.

Second, successful PPPs should be supported by a strong legal and institutional framework. Such a framework can help minimize political and regulatory risks for the private sector and thus increase the value for money the government can obtain. In particular, the legal framework should cover all major aspects of the PPP process and be conducive to private participation. Moreover, competitive bidding should be used to find the most efficient PPP concessionaire and minimize corruption. Furthermore, governments should develop the appropriate structures to manage PPPs. The institutional setup for PPPs may vary by country, but experience suggests that a central PPP unit, preferably at the Ministry of Finance, can serve as a useful vehicle to facilitate PPPs. The Ministry of Finance should act as a “gate keeper” to ensure that PPPs are consistent with broader macro-fiscal objectives, while a unit elsewhere in the government can handle PPP promotion functions.

Strong legal and institutional frameworks are needed to curb excessive renegotiation.

The institutional framework affects the quality and outcome of PPP projects. Given the complexities of large PPP projects, contracts are often incomplete, and therefore, many PPPs are subject to renegotiations. Guasch (2004) finds that most renegotiations are initiated by private firms and grant them more favourable outcomes (Table 11). For example, more than 60 percent of the renegotiations results in delay or reduction of the private firms’ obligations or cost pass-through. However, the institutional framework, such as the legal and regulatory setups, significantly affects the incidence of renegotiations. For example, 61 percent of renegotiations occur in the absence of a regulatory body, while only 17 percent occur when there is one in place. Therefore, a solid institutional framework provides an *ex-ante* incentive for better PPP contracts to deliver the expected results.

The NMS have made progress in developing appropriate legal and institutional frameworks but still face considerable challenges. A PPP policy framework has been established in a number of NMS through government resolution (*e.g.*, Czech Republic and Latvia) or publication of strategy papers (*e.g.*, Bulgaria). In others, however, a general PPP policy framework is lacking. Even in countries with an appropriate PPP policy framework, the existence of such a framework does not necessarily imply an appropriate legal framework. Similarly, the progresses in developing a legal framework for PPPs vary in NMS. Some countries reached international standards by regulating PPPs through contract, public procurement, and other civil legislations with no specific PPP/concession Law (*e.g.*, Czech Republic, Estonia, and Slovenia). In contrast, a few countries that have enacted a specific PPP law still lack sufficient details in core areas to meet international standards (*e.g.*, Hungary and Croatia).¹⁵ Furthermore, the legal and institutional framework in many NMS is not conducive to the competitive selection of the concessionaire and does not regulate the gate-keeping role of the Ministry of Finance to address fiscal risks in the PPPs.

¹⁵ Core areas, as defined in the EBRD (2005), include (i) general policy framework, (ii) general concession legal framework, (iii) definitions and scope of the concession law, (iv) selection of the concessionaire, (v) project agreement, (vi) security and support issues, and (vii) settlement of disputes and applicable law.

Table 11. Institutional framework and concession renegotiations

Selected institutional factors	In percent in all renegotiations	Selected renegotiation outcome	In percent in all renegotiations
Regulation criteria			
Investment requirements (regulate by means)	70	Delays on investment obligation targets	69
Performance indicators (regulate by objectives)	18	Reduction in investment obligations	62
Regulatory framework		Extension of concession period	38
Price cap	42	Tariff increases	62
Rate of return	13	Increase of cost components with automatic pass-through to tariffs	59
Existence of regulatory body			
In existence	17	Adjustment of fee payment to government	
Not in existence	61	favorable to operator	31
Impact of legal framework			
Embedded in law	17	unfavorable to operator	17
Embedded in decree	28	Changes in asset-capital base	
		favorable to operator	46
Embedded in contract	40	unfavorable to operator	22

Source: Guasch (2004)

Finally, PPPs should be supported by transparent accounting and reporting. Accounting and reporting standards provide the basis for sound value for money evaluation and risk management. More important, they facilitate public oversight and enhance quality and accountability in the use of PPPs. However, there are currently no internationally accepted comprehensive accounting and reporting standards for PPPs, and existing practices are often characterized by fairly lax standards (Schwartz *et al.* 2008, Part IV). As a result, PPPs have often been motivated by a desire to circumvent fiscal controls. This has gone hand-in-hand with the emergence of government guarantees and contractual obligations that give rise to sizeable contingent liabilities. It is thus critical to strengthen transparent accounting and reporting to achieve the net gains from PPPs while managing fiscal risks.

In the EU context, the 2004 Eurostat decision provides only a minimum standard to reflect the fiscal implications of PPPs.¹⁶ The private sector typically bears construction and availability risk, and the decision would therefore make it easier for governments to record PPP projects as private investment and ignore their fiscal implications in most cases, leading to significant fiscal risks. Also, this simple “on-budget/off-budget” treatment provides strong incentives for PPP designs to “pass” the Eurostat test rather than to optimize the risk allocation to achieve value for money. For example, if a PPP project is at least as costly as traditional public investment, applying the Eurostat criteria would favour delaying the expenditure at a higher overall cost over time. From an economic perspective, it would be difficult to justify recording such a project off budget.

Additional fiscal reporting – even when a PPP is classified as private investment – would enhance transparency.

A better standard would be to require that additional fiscal reporting requirements be met even if a PPP project is recorded as a private investment. In general, classifying the assets of a PPP project as either public or private does not capture the actual extent of risk transfer or sharing. The Eurostat approach does not do justice to the fact that PPP projects are essentially risk sharing arrangements that require each of the partners to assume and manage specific risks in the provision of infrastructure services. Hence, the IMF suggests that budget documents report PPP operations even when projects are classified as private (Box 4). In addition, the fiscal implications of PPPs should be reflected in medium-term budgets and debt sustainability analysis. This will require governments to strengthen their ability to assess risks from contingent obligations.

Most NMS currently do not follow best practice for transparent disclosure of the fiscal implications of PPPs. These fiscal implications (*e.g.*, expenditures linked to availability payments) are usually not explicitly identified. Some countries (*e.g.*, Bulgaria and Hungary) only include some information on government liabilities related to PPPs. In Hungary, the budget documents contain a summary table of PPP operations, their total expected costs, and the estimated impact of associated availability fees on the budget in the coming three years, but fiscal risks stemming from PPPs are not fully quantified nor transparently disclosed. Overall, capacity to identify contingent liabilities implied by PPPs is low to non-existent in NMS. Capacity in this area should be increased so that NMS can properly assess the trade-offs in risk transfer.

NMS have a long way to go in building appropriate institutional frameworks for PPPs and addressing related fiscal risks. As discussed above, PPPs are generally not imbedded in public investment planning and medium- to long-term budget frameworks that allow proper project selection based on cost benefit analysis and value for money considerations. The generally lax fiscal accounting and reporting standards further encourage the use of PPPs to by-pass fiscal controls, usually leaving

¹⁶ According to the 2004 Eurostat decision, PPP projects should be classified as non-government assets and recorded off balance sheet for the government under two conditions: (i) the private partner bears the construction risk; and (ii) the private partner bears either availability or demand risk. When PPP projects involve limited risk transfer to the private sector, the project's assets would be classified as government assets. National statistics offices are responsible for adopting and implementing this decision, based on information from project contracts.

governments with significant fiscal risks. Furthermore, several aspects of the legal and institutional framework also need strengthening, particularly in competitive bidding. Regarding institutional setups, while progress has been made in building dedicated PPP units, the gate-keeping role of the Ministry of Finance is often found to be too weak.

New member states need to reduce fiscal risks from PPPs and strengthen their legal and institutional frameworks.

Box 4. Disclosure requirements for PPPs and guarantees

PPPs

For each PPP project or group of similar projects, budget documents and end-year financial statements should provide information on the following:

- Future service payments and receipts (such as concession and operating lease fees) by government specified in PPP contracts over the following 5–30 years.
- Details of contract provisions that give rise to contingent or variable payments or receipts (*e.g.*, guarantees, shadow tolls, profit sharing arrangements, events triggering contract renegotiation), which need to be valued to the extent feasible.
- Amount and terms of financing and other support for PPPs provided through government on-lending or via public financial institutions and other entities (such as special purpose vehicles (SPVs) owned or controlled by the government).
- Information on how the project affects the reported fiscal balance and public debt, and whether PPP assets are recognized as assets in the government balance sheet. It should be noted whether PPP assets are recognized as assets on the balance sheet of any SPV or private sector partner.¹

Guarantees

Irrespective of the basis of accounting, information on guarantees should be disclosed in budget documents, within-year fiscal reports, and end-year financial statements. Guarantees should ideally be reported in a *Statement of Contingent Liabilities* which is part of the budget documentation and accompanies financial statements, with updates provided in fiscal reports. Information to be disclosed annually for each guarantee or guarantee programme includes:

- A brief description of its nature, intended purpose, beneficiaries, and expected duration.
- The government's gross financial exposure and where feasible, an estimate of the likely fiscal cost of called guarantees.
- Payments made, reimbursements, recoveries, financial claims established against beneficiaries, and any waivers of such claims.
- Guarantee fees or other revenue received.
- An indication of the allowance made in the budget for expected calls on guarantees, and its form (*e.g.*, an appropriation, a contingency).
- A forecast and explanation of new guarantees to be issued in the budget year.

During the year, details of new guarantees issued should be published (*e.g.*, in the Government Gazette). Within-year fiscal reports should indicate new guarantees issued during the period, payments made on called guarantees, and the status of claims on beneficiaries, and update the forecast of new guarantees to be issued in the budget year and the estimate of the likely fiscal cost of called guarantees. Finally, a reconciliation of the change in the stock of public debt between the start and end of the year should be provided, showing separately that part of the change attributable to the assumption of debt arising from called guarantees.

1 The suggested disclosure of the private sector partner's accounting treatment is made by Heald (2003).

6. Concluding remarks

Many NMS need to continue to implement fiscal adjustment to support growth and macroeconomic stability. An analysis of the determinants of economic growth in the NMS suggests that achieving income convergence with other EU members rests more with maintaining productivity growth, attracting foreign savings, and improving investment efficiency than with increasing spending (including for infrastructure). Also, as macroeconomic vulnerability indicators remain high, and in some countries are approaching critical values, strong fiscal positions are needed to avoid a further deterioration in the macroeconomic framework and support medium-term economic growth.

Fiscal adjustment and reforms need not depress public investment.

Yet, fiscal adjustment does not necessarily have to constrain public investment. Several NMS have successfully increased public investment with the support of higher revenue efforts and cuts in other expenditures, while at the same time consolidating their fiscal positions. In general, further fiscal adjustment can lead to stronger private-sector-led growth, including through private investment and foreign capital inflows. The EU experience shows that countries with strong fiscal positions and modest debt have generally been able to stimulate higher private investment to more than offset cuts in public investment. Finally, success in achieving the convergence objective requires higher efficiency in investment, which can be facilitated by properly designed fiscal adjustment.

In most NMS, institutional reforms will be needed to enhance the efficiency of investment. Addressing infrastructure bottlenecks usually requires both more investment and more efficient investment. In all NMS, further institutional reforms play a critical role in improving efficiency and encouraging private sector investment. Policy options will need to be country-specific with due consideration to the overall macroeconomic and fiscal framework, infrastructure bottlenecks, business constraints, and the efficiency of investment.

New financing options can ease fiscal constraints but present both new opportunities and challenges. One such option, various EU funds, make additional resources available for investment but their net fiscal impact may be negative in the short run unless countries can reallocate spending away from domestically-funded programmes. Appropriate project selection procedures are crucial to ensure the efficient use of funds. Additional resources also pose challenges for absorptive capacities in many NMS. Another option, PPPs, provide a promising route for channelling more resources into infrastructure investment but require an urgent strengthening of the institutional framework to handle PPPs, and limiting incentives to move investment off budget. Benefits can only be expected to materialize to the extent that the risks and complexities inherent in this investment route are adequately managed.

Annex: EU funding available for new member states¹⁷

Pre-accession aid

Aimed to facilitate adjustment to full membership. The disbursements on remaining pre-accession funds continue also after accession. There were three pre-accession instruments:

- Poland and Hungary: Assistance for Restructuring of the Economy (PHARE);
- Instrument for Structural Policies for pre-Accession (ISPA);
- Special Accession Programme for Agriculture and Rural Development (SAPARD).

Structural funds

Aimed at the following objectives: (1) economic catch-up in less developed regions (GDP per capita less than 75 percent of EU average, (2) economic and social cohesion in areas facing structural difficulties (e.g., rural, fisheries); (3) training and promotion of employment (in less developed regions included in (1)). These three objectives account for 94 percent of structural allocations for the NMS. There are four structural funds to finance the above objectives:

- European Regional Development Fund (ERDF): financing objectives (1) and (2)
- European Social Fund (ESF): financing objectives (1), (2), and (3)
- European Agricultural Guidance and Guarantee Fund (EAGGF) – guidance section: financing objective (1) in agriculture;
- Financial Instrument for Fisheries Guidance (FIFG): financing objective (1) in the fisheries sector.

Other structural funds, so called Community Initiatives, include: *Interreg III* (cross-border cooperation), *Urban II* (innovative strategies in urban areas), *Equal* (combating labour market discrimination), and *Leader +* (rural development initiatives).

Cohesion Fund

Available to countries with GDP per capita below 90 percent of the EU average. This finances large infrastructure projects in environment and transportation.

Common Agricultural Policy (CAP)

The CAP policy has several components:

- Market measures: Purchase of unprocessed food at intervention price and subsidies to non-EU exports;
- Direct payments: Payments to farmers based on farm area and type of production;
- Rural development (EAGGF guarantee section): So-called CAP pillar II to provide support to farms in less favorable areas (LFA), forestation of land, structural pensions (paid to those who transfer farms to young farmers), food-processing, or training of farmers.

Internal policies

Funds to finance existing EU policy priorities, NMS mainly receive funds for:

- Nuclear safety: Decommissioning of power plants;
- Schengen: Strengthening control on the EU border and complying with the Schengen Treaty.

¹⁷ This Annex draws on Rosenberg and Sierhej (2007).

Budget compensation

Unconditional payment from the EU agreed at the last stage of the accession negotiations. Its main goals are to ensure that new members would not become net contributors, and to improve budget liquidity in countries where there is no such risk. This is not a “regular” EU funding vehicle (it will not continue after 2006). This transfer is in part financed directly from the EU budget and in part with resources shifted from structural funds originally allocated for the new member states.

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