The Stability and Growth Pact form the Perspective of
the New Member States

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Abstract

The purpose of this paper is to examine the fiscal characteristics of the new members in the light of the criticisms levelled against the SGP and to see in what ways their initial conditions differ from those faced by the current euro zone countries in the run-up to EMU. There are substantial differences in the starting fiscal position of the new members. Overall, because of the lower debt levels and greater yield convergence already achieved, the new members will be able to rely less on gains from yield convergence than the current eurozone members were able to do in the run-up to EMU. EU accession will also have a negative net impact on the budgets of the new members in the early years of membership. We also look at the cyclical sensitivities of the budgets and find that in the new members the smoothing capacity of the automatic stabilizers might be weaker than in the current euro zone members. Some of the policy implications of these findings are discussed.

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I.   Introduction

The ten new Members States (NMS)[1] of the EU will have to comply with the budgetary objectives stipulated in the Maastricht Treaty (MT) and the Stability and Growth Pact (SGP), and will be subject immediately after accession to the EU budgetary surveillance framework including, where relevant, the activation of the Excessive Deficit Procedure (EDP). However, as long as they have not adopted the euro, the NMS will not be subject to the so called enhanced budgetary surveillance under the EDP, nor to the sanctions foreseen for the members of the Economic and Monetary Union (EMU)[2]. The NMS have the obligation to enter the EMU and therefore to meet the Maastricht criteria of public finance, inflation, interest rate and exchange rate, but they have the freedom of choosing the timing of the adoption of the euro.

   The purpose of this paper is to examine the fiscal characteristics of the new members in the light of the criticisms levelled against the SGP and to see in what ways their initial conditions differ from those faced by the current euro zone countries in the run-up to EMU. The paper is organized as follows. Section II briefly summarizes the main features and criticisms of the SGP, as well as the principal proposals for improvement of the Pact found in the literature. Section III examines the fiscal characteristics of the NMS from the perspective of meeting the Maastricht criteria on the road to EMU and from the broader perspective of the SGP framework. This section ends with a summary of our findings. Section IV discusses the policy implications of our findings.

II.   The Stability and Growth Pact

1.   Features

The SGP and its rules are well known and well documented and we briefly recall only its main features and the rationale behind them[3]. A unique feature of EMU is that monetary policy is centralized in the hands of the European Central Bank (ECB) while fiscal policy remains decentralized in the hands of the governments of the individual member states. It was therefore recognized that to support the ECB's responsibility to maintain price stability and to prevent free-riding, fiscal policy had to be subject to rules in order to ensure discipline of public finances. These rules consist of two pillars. First, to become a member of EMU, a country's general government deficit/GDP ratio cannot exceed 3 percent and its general government debt/GDP ratio cannot exceed 60 percent; in case the latter ratio is exceeded, the country has to demonstrate that its debt is being reduced and approaching the reference value at a satisfactory pace. Second, once a member of the EMU, the country has to respect the medium-term budgetary objective of 'close to balance or in surplus' in order to allow for normal cyclical fluctuations, while keeping the deficit within the reference value of 3 percent of GDP. The 3 percent reference value for the deficit can be breached only under exceptional circumstances, when the excess results from an unusual event

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[1] Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovenia, Slovakia.
[2] For a description of the EDP, see Gros et al. (2004) and Cabral (2001).
[3] A good description of the SGP and how it works can be found in Gros et al. (2004), Fatás et al. (2003), HM Treasury (2004), European Commission (2000, 2002, 2003) and ECB (1999).

outside the control of the Member State and which has a major budgetary impact, or when it results from a severe economic downturn, defined as an annual fall of real GDP of at least 2 percent. A smaller, at least 0.75 percent decline in GDP, can be considered as exceptional taking into account the abruptness of the downturn and the accumulated loss of output relative to past trends. The EDP serves to monitor progress toward and compliance with the rules set out in the MT and the SGP.

It is a legitimate question to ask how the reference values of 60 percent of GDP for the government debt and 3 percent of GDP for the fiscal deficit were chosen. It has been suggested (Thygesen, 2002) that 60 percent was the average debt ratio of the EU members around 1990 (the MT was signed in 1992) and if countries kept their deficit at the 3 percent limit, their debt would converge to 60 percent, assuming that nominal GDP is rising at a trend rate of approximately 5 percent per year: 3 percent real growth (assumed to be the potential output growth in the EU) plus 2 percent inflation (in line with the ECB's inflation target of 2 percent or less). While these reasonings have not been made officially public as far as we know, it is widely assumed that they lay behind the selection of the reference values.

2.   **Criticisms of the SGP**

The main criticisms levelled against the SGP can be grouped under the following headings on the basis of what the Pact is seen as lacking: strong enough analytical foundations, symmetry, flexibility, incentives for good quality fiscal consolidation, and enforceability[4]. We discuss these in turn below.

a)   *Lack of clear analytical foundation*

A frequently mentioned criticism which seems to have dented the most the credibility of the SGP is that its main provisions lack a clear analytical foundation. The rationale behind the 'close to balance or in surplus' rule is debt sustainability, which means that the government cannot run a Ponzi scheme where debt grows forever, but it has to satisfy its intertemporal budget constraint, that is to say, the present discounted value of its expenditures must equal the present discounted value of its revenues. However, as pointed out by Perotti et al. (1997), debt sustainability thus defined is of little practical use, since the intertemporal budget constraint has an infinite time horizon that does not sufficiently constrain government policies: anything can be assumed about the future. The intertemporal budget constraint depends on GDP growth, inflation and real interest rates, but the SGP does not take into account the differences in these areas across countries. Typically, catching-up economies such as the NMS have higher potential growth and higher inflation due to the Balassa-Samuelson (BS) effect, which is an equilibrium phenomenon[5]. Thus, catching-up economies could, *ceteris paribus*, run higher deficits than more developed countries without jeopardizing the long-term sustainability of public finances.

Furthermore, the SGP does not address the critical issue of what is the optimal level of debt and treats low and high debt countries identically. Implicitly, the 'close to balance or in surplus' rule over the cycle means that eventually the debt will be run down to zero. Zero debt may not be an optimal solution since it ignores the benefits of

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[4] There is a good review of the criticisms of the SGP in Buti et al. (2003a).

[5] Kovács (2004) reports estimates in the literature of the BS effect that vary from less than one percent to up to 6.9 percent per year, and von Hagen and Zhou (2004) report estimates varying between about 2 and 4 percent.

the intergenerational distribution of taxes to finance, for example, infrastructural investments and reforms in the pension and health care systems that will benefit future generations[6]. The optimal level of debt depends, *inter alia*, on whether the interest payments on the debt crowd out worthwhile investments and whether the disincentive effects of higher distortionary taxes to cover the interest payments are important or not (Aiyagari and McGrattan, 1998). From that perspective, low debt countries have more room for maneuver than high debt countries. The uniform deficit rule does not take into account the higher need for infrastructural investments in countries where the initial stock of public capital is insufficient, as in the catching-up NMS. Furthermore, the uniform reference value of the debt does not explicitly take into consideration the contingent liabilities due to population ageing and the state of pension reform that can vary from one country to another.

A further criticism from an analytical standpoint is that the SGP disregards the aggregate fiscal stance of the EMU. In a monetary union, what matters from the point of view of macroeconomic stability is the fiscal stance of the union as a whole and not the fiscal stance of individual countries. The fiscal policies of large countries have a greater impact on the fiscal stance of the union than the fiscal policies of smaller countries.

b)   *Lack of symmetry*

Two issues are relevant under this heading. First, for countries which have not yet reached the 'close to balance or in surplus' position, the requirement that they reduce continuously the deficit may entail procyclical policies in an economic downturn. This problem has been mitigated by the European Council decision of March 2003, specifying that the above requirement will be judged on the basis of the cyclically adjusted budget position. However, countries which have not yet reached the 3 percent deficit level and are therefore outside of the euro zone have to satisfy the Maastricht reference value in nominal and not cyclically adjusted terms in order to be able to join EMU. In the run-up to EMU, these countries may therefore confront a situation in which they have to follow a procyclical policy. Second, while the SGP sets a limit on the maximum deficit and foresees penalties for breaking it, the Pact does not specify surpluses and does not otherwise provide enough incentives for reducing the deficit and/or accumulating surpluses during boom periods. The failure of sufficiently reducing the deficits in the upswing of 1998-2000 is seen as the major reason for the breaking of the deficit criterion by several Member States in 2002 and 2003[7].

c)   *Lack of flexibility*

The loss of independent monetary policy within the EMU calls for the preservation of fiscal flexibility to cope with asymmetric shocks or the asymmetric effects of common shocks. This means that countries should have enough room to let the autonomic stabilizers operate fully or, if necessary, to use discretionary policy to respond to shocks. The question then is whether the 3 percent deficit reference value provides the needed flexibility. The answer to this question depends on the starting

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[6] Buiter and Grafe (2002) make the intriguing point that the 'close to balance or surplus' rule could possibly mean that the EU governments will become net creditors. This would lead to the ironic result of the (partial) socialization of the means of production in the long-run, as governments will have to invest their cash surpluses in bonds and stocks of the private sector.

[7] See Fatás et al. (2003).

level of the deficit and the output smoothing capacity of the automatic stabilizers. Some studies have found (Eichengreen and Wyplosz, 1998 and Kiander and Virén, 2000) that the deficit limit might not provide enough flexibility for some of the EU-15 countries.

d)   *Quality of fiscal consolidation*

The quality of fiscal consolidation matters because taxes and expenditures affect output differently due to their different impact on income distribution and incentives. Empirical research has demonstrated that consolidation relying on current expenditure cuts rather than tax increases are likely to last longer and are thus more successful (Alesina and Perotti, 1995 and 1997; Perotti et al. 1997; Buti and Sapir, 1998; von Hagen et al. 2001). The SGP, by defining the fiscal target in terms of deficit numbers, neglects the quality of fiscal adjustment. Von Hagen et al. (2001) provide empirical evidence that high debt to GDP ratio and weak domestic and international economy induce governments to undertake expenditure-based rather than revenue-based consolidation strategies. This proves that governments will undertake quality adjustment under economic constraints, but the SGP does not explicitly provide incentives for undertaking quality consolidation.

e)   *Enforceability*

The major criticism in this area is that the fines and penalties foreseen within the SGP framework are difficult to enforce, because the decision to subject a country to the penalties lies in the hands of the Economic and Financial Affairs Council (ECOFIN) which is composed of politicians who are more understanding of and therefore more indulgent toward the problems faced by their peers. The decision of November 25, 2003 to hold the EDP for France and Germany in "abeyance for the time being" is an unmistakable sign of such indulgence. The frequent recourse to one-off measures and creative accounting has also underminded the seriousness of the enforcement procedures. Most importantly, the long time lags involved in the enforcement procedure mean that the penalties, even if enforced, will come too late to trigger timely responses. Prior to EMU, there was an incentive to adjust in order to join the currency union, but inside EMU that carrott disappears and the stick remains of dubious efficiency.

3.   **Proposals for improvement found in the literature**

There have been many proposals for improvement of the SGP and even its suppression has been considered (De Grauwe, 2002). Nonetheless, there is broad consensus among academics and opinion makers that as long as fiscal policy remains decentralized, there is a need for fiscal rules in the EMU. Buti et al. (2003a) review the EU fiscal rules against the criteria of Kopits-Symansky and Inman[8] and conclude that overall these rules perform quite well with respect to these compliance criteria, except with regard to enforcement.   Generally, the proposals for improvement try to address one or several of the criticisms discussed above[9]. Buiter and Grafe (2002) propose the 'permanent budget rule' that takes into account different initial positions (debt level, stock of public sector capital, stage of pension reform) and different future development paths (GDP growth, inflation). The rule requires that the inflation-and-

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[8] Kopits and Symansky (1998) and Inman (1996). See also Kopits (2001).
[9] There is a review of the various proposals in Buti et al. (2003a) and also in HM Treasury (2004).

real-growth-adjusted permanent government budget is in balance or in surplus. This rule is attractive theoretically, but it requires estimating future growth and inflation which could become a contentious issue and hence would be difficult to enforce. Another analytically attractive proposed rule is the one that would consider the fiscal stance of the euro area as a whole and would allocate "deficit shares" to individual countries. These shares could be assigned by a decision of ECOFIN (the French proposal)[10], or by the markets through a system of tradable budget deficit permits (Casella, 2001). The main arguments against such a scheme is that the risks of triggering a financial crisis are not uniform across governments (Buti et al. 2003a) and that the allocation of deficit shares, whether by bureaucratic/political decision or by the markets, requires a degree of political coordination and cooperation that seems to be lacking for the time being.

Other proposals aim at applying the "golden rule", whereby investment expenditure is excluded from the deficit calculation. Blanchard and Giavazzi (2004) propose to exclude net investment (gross investment less depreciation) from the deficit on the grounds that depreciation of public capital is equivalent to current expenditure. The rationale for the golden rule is that borrowing should be allowed to finance investments since their return will occur in the future and hence their cost should be distributed over time. Excluding investment from the deficit would remove the financial constraint on public investment under the SGP and could also help avoid procyclical tightening of fiscal policy in a downturn. Although intuitively appealing, the arguments advanced against the golden rule[11] are that it is difficult to determine what constitutes investment, it could lead to a bias in favor of physical assets, it would provide new incentives for creative accounting, and that it could undermine the efforts to consolidate the public finances.

A final set of proposals which we would like to mention deals with institutional reforms. Wyplosz (2002) proposes to establish in each country Fiscal Policy Committees entrusted with the responsibility to set annual deficit targets consistent with long-run debt sustainability. Fatás et al. (2003) argue for the creation of a Sustainability Council at the level of the euro area, with the task of monitoring the sustainability of Member States' public finances[12]. The idea behind these proposals is to find in the fiscal area a counterpart to national central banks or the ECB that could bring governments to better adhere to fiscal discipline. The idea is appealing but a lot depends on the political will of elected governments to respect more strictly the recommendations of the proposed national Fiscal Policy Committees or the euro area Council than they currently respect the recommendations of the Commission.

III.   Fiscal Characteristics of the New Member States

The fiscal characteristics of the NMS have to be assessed from two perspectives: (1) from the narrower perspective of meeting the numerical deficit and debt Maastricht criteria on the road to euro adoption; and (2) from the broader perspective of the SGP framework in the light of the criticisms of the Pact and the proposed improvements

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[10] Proposal put forward by the Minister for Finance of France at the informal Ecofin Council in Dresden in April 1999 (Buti et al., 2003a).

[11] See, for instance, European Commission (2003) and Buti et al. (2003a).

[12] Others, for instance Gros et al. (2004), have also made similar proposals.

discussed above. Although the issues are linked, it is useful from a policy point of view to approach the assessment separately from the above two perspectives. Such an assessment has to consider the initial conditions faced by the NMS, as well as the challenges lying ahead. We undertake this exercise by comparing the situation of the NMS with the experiences of the current euro zone members.

1.   **The road to EMU**

On their way toward adopting the euro, the NMS face the task of reducing their fiscal deficits to the Maastricht criteria of 3 percent of GDP. Several NMS have announced that they want to enter the EMU by 2008 or earlier, while others plan to join later. On the whole, a distance of five years from EMU entry appears to be a good benchmark to which to compare the starting positions of the current euro zone members with the starting positions of the NMS. Figure 1 shows the deviation from the 3 percent deficit in 2003 for the NMS and five years prior to entry into the EMU for the current members (1996 for Greece and 1994 for the others). With the exception of Malta, the deviations for the NMS are about the same or less than were the deviations for the majority of the current EMU members. The starting deficit conditions of the NMS are thus not worse than the conditions faced by the current members five years prior to joining the EMU. In fact, for the three Baltic states and Slovenia the conditions are significantly more favorable.

Insert Figure 1

As regards government debt, it is generally lower in the NMS than it is in the euro zone countries currently or five years prior to EMU entry (Figure 2). The exceptions are Cyprus, Malta and Hungary. There are several reasons behind the low debt levels in the NMS from Central and Eastern Europe. First, the Baltic States and Slovenia inherited none or little of the liabilities of the former Soviet Union and Yugoslavia, respectively, while Poland obtained partial debt forgiveness. Second, some countries (e.g. Hungary) used privatization receipts to reduce the government debt. Third, a part of the social safety net expenditures were borne by state enterprises, most notably in the form of within-the-gate unemployment. When these enterprises were privatized, the new owner often took over their debts, which was then reflected in a lower purchase price. There were also developments in the opposite direction, most notably when the government assumed the debts of state-owned banks and enterprises in order to consolidate them prior to privatization[13].

Insert Figure 2

The lower level of debt has implications for the way in which the fiscal consolidation needed to reach the 3 percent Maastricht deficit criteria can be achieved. Together with the greater convergence of bond yields already obtained by the NMS (Figure 3), the new member countries will be able to rely less on the gains from interest rate convergence to reduce the deficit than were the current euro zone countries (Figure 4). During the last five years prior to EMU entry, such gains represented between 2.4 to 5 percent of GDP in half of the current euro zone members. Among the NMS, using the spot euro bond yield as reference, only Hungary, Malta and Poland will have gains of between 1.3 and 2 percent of GDP,

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[13] Kiss and Szapáry (2000) review the impact of debt assumptions on Hungary's public finances.

while all the others will have smaller gains. If we use the 2009 forward euro bond yield as reference, the gains will be even smaller[14]. The greater convergence of bond yields in the NMS is a result of the progress with disinflation and the markets' expectations that these countries will join the EMU in the not too distant future, which have contributed to a reduction of the risk premia. Another factor reducing the potential gains from yield convergence is that in some of the NMS a large portion of the government debt is in foreign currency where the scope for a decline in yields is limited.

Insert Figures 3 and 4

Figure 5 shows the required changes in the primary balance to reach the 3 percent Maastricht deficit limit. A negative value shows the required improvement and a positive value the "permissible" deterioration. For the high-debt NMS (Cyprus, Czech Republic, Hungary, Malta), the required improvements are significantly higher than were necessary for most of the euro zone members, owing to the smaller gains from yield convergence in the former. Only high-debt Italy and France, where the yield convergence five years prior to EMU was already nearly complete, needed primary balance improvements similar to those of the above mentioned CEEs. In these latter countries, therefore, most of the adjustment to reach the 3 percent limit will have to be made in the primary balance.

Insert Figure 5

This brings us to examine the size and composition of government spending in the NMS. The adequate size of government spending is difficult to determine since it depends on a country's social preferences. One benchmark that can be used to judge the relative size of government is per capita income: when incomes rise, the demand for certain publicly provided services, such as education, R&D, infrastructure services tend to increase so that low income countries might need extra room to accommodate these higher expenditures as per capita incomes rise. Figure 6 plots the level of government expenditure as a ratio of GDP against per capita income. What the Figure illustrates is that the distribution of spending levels of the NMS is about the same (shown by the circled area) as the spending levels of the EU members, even though the per capita income is much smaller in the NMS. Thus, using per capita income as a benchmark, the governments in the NMS appear to be oversized. Von Hagen (2004) comes to the same conclusion using regression analysis where, in addition to per capita income, he also takes into consideration the openness of the economy on the grounds that more open economies are more exposed to external shocks and therefore need larger government sector as a buffer. It is necessary to point out though that both per capita income and openness are imperfect benchmarks to judge the adequacy of the size of the public sector, because they ignore the important question of which sector, public or private, can provide most efficiently the services.

Insert Figure 6

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[14] In estimating the gains for the NMS, we assumed that the domestic currency denominated debt/GDP ratios remain constant. The interest rates used were 5-year eurobond spot and 2009 forward yields. The five year period overestimates somewhat the average maturity of domestic debt of the NMS, but these were the only comparable data readily available across countries.

The above findings about the level of expenditure in the NMS have to be looked at in conjunction with the special needs for additional spending in these countries. It is common wisdom that transition economies need to strengthen their infrastructure. Since the early 1990s, average government investment has been consistently higher in the Central and Eastern European transition countries than in the EU (Figure 7). This is normal, since the social marginal productivity of infrastructural investment will tend to be higher in less developed countries. For the period ahead, the transition countries will need to maintain a relatively high level of public investment expenditure given their relatively low stock of public capital.

Insert Figure 7

Furthermore, EU accession will involve additional government expenditure and some revenue loss for the new members, which will be offset only partly by transfers from the EU. The net effect will be negative in the initial years of membership due to the combination of the following main factors: (1) the new members have to pay immediately after accession their contribution to the EU common budget; (2) a part of the EU transfers to finance projects are channeled directly to private sector recipients with no positive direct effect on the budget; (3) those transfers that are channeled to the budget for project implementation have to be pre-financed by the government; (4) the EU transfers cannot be used to finance projects which, in the absence of the transfers, would have been financed from the budget (the principle of additionality); (5) there is a domestic co-financing requirement of EU-financed projects; (6) there will be increased administrative burden associated with the implementation of EU financed projects; and (7) the removal of custom duties on imports from EU members and the sharing of customs receipts on imports from third countries involve a loss of revenue. These negative effects will be partly compensated by the phasing out of domestic agricultural subsidies which will be replaced by EU subsidies.

Several authors have estimated the net direct budgetary effects of accession (see Table 1). All the authors have come up with a net negative direct effect on the budget during the first years of membership. The estimates range between 1 and 4.75 percent of GDP per year. The rather wide range of these estimates reflects the differences in the underlying assumptions regarding absorption capacity and the space and cost of financing the *acquis communautaires*, such as environmental protection and infrastructure. These estimates concern only the direct budgetary effects, which may be mitigated by favorable indirect effects that are difficult to quantify, such as those resulting from accession-driven private sector activity. However, these favorable effects will come on stream only gradually and the assessment that accession will lead initially to a higher burden on the budget is not questioned.

TABLE 1: NET BUDGETARY EFFECT OF ACCESSION

Authors	Net Annual Negative Effect (percent of GDP)
Kopits and Székely (2004)	3 - 4.75
Antczak (2003)	1.7 – 3.1
IMF (2004)	1.0 – 1.5

2. The SGP framework

Two issues are relevant from the perspective of the SGP framework: the cyclical sensitivity of the budgets and debt sustainability.

a) *Cyclical sensitivity*

In the SGP framework, the automatic stabilizers are to be allowed to operate fully without breaching the 3 percent deficit limit. The European Commission has calculated cyclical safety margins for each of the EU-15 countries[15], showing the size of the deterioration in the budget balance in case output falls below potential. Subtracting these safety margins from the reference value of 3 percent, we obtain the so-called "minimal benchmark" which a country should at least achieve over the cycle in order to avoid breaching the 3 percent limit in a downturn.

Using the methodology of the Commission, we calculated the safety margins for the eight new members from Central and Eastern Europe (CEE) (Table 2)[16]. Despite somewhat higher output volatilities[17], the cyclical safety margins are generally lower in the CEEs than in the EU-15, as a result of lower sensitivity of the budgets of the CEEs to the economic cycle. The lower sensitivity is explained essentially by the smaller reliance on cycle-sensitive direct taxes and the significantly lower shares in total spending of cycle-sensitive expenditures on unemployment benefits[18]. One reason for the smaller reliance on direct taxes and the correspondingly higher reliance on indirect taxes is that tax evasion has been a widespread problem in the CEEs and the collection of indirect taxes has proved to be more efficient. Other reasons are tax holidays and the low level of corporate taxes which have been used as an incentive to attract foreign investment. The smaller share of expenditures on unemployment compensation is due to the generally less generous benefits and the low labor participation rate in some of the CEEs[19].

Insert Table 2

The lower cyclical safety margins mean that the "minimal benchmark", i.e. the maximum deficit to be respected over the cycle without running the risk of breaching the 3 percent limit, is higher in the CEEs than in the EU-15[20]. This finding has to be looked at in conjunction with the smoothing capacity of the automatic stabilizers. Many authors have researched and calculated the output stabilization effects of automatic stabilizers in the EMU[21]. Calculating these effects for the CEEs is beyond

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[15] European Commission (2000, 2002).

[16] The methodology is described in the Annex.

[17] See Darvas and Szapáry (2004) for a discussion of output volatilities in the EMU and the CEEs.

[18] Direct taxes as a ratio of GDP averaged 14 percent in the EU-15 and 10 percent in the NMS in the period 1992-2002. Unemployment benefit payments to GDP averaged 1.73 percent in the EU-15 and 0.68 in the NMS (Sources: AMECO and Riboud et al. 2002).

[19] In Hungary, Poland and Slovakia the participation rate is 50 to 55 percent, compared to the EU average of 66 percent (source: EUROSTAT)

[20] Our estimates of the cyclical safety margins of the budgets of the CEEs are fairly close to those calculated by IMF (2004), but are substantially lower than those calculated by Coricelli and Ercolani (2002). These authors estimate the safety margins for Hungary and Poland to be over 3 percent mainly because they find output to be more volatile. This may be due to the inclusion of the years 1990-94 which were characterized by high transition-induced output volatility. For this reason, we excluded those years from our calculations.

[21] Buti et al. (2003b); Buti and van den Noord (2003 and 2004); Brunila et al. (2002); European Commission (2002); Barrell and Pina (2000); Kiander and Virén (2000); van den Noord (2000)

the scope of this paper and should be the subject of future research. One factor which tends to weaken the smoothing capacity of automatic stabilizers in the CEEs is that they are small open economies (except Poland) where the smoothing capacity is reduced by the leakages through imports. The lower cyclical budget sensitivity together with the openness of the CEEs imply that these countries may have to rely more on discretionary measures to smooth the economic cycle. There are, however, risks involved in using discretionary changes and one has to ensure that the discretionary measures are reversible and do not lead to a deterioration of the underlying budget position (see European Commission, 2002).

b)   *Debt sustainability*

As seen earlier, the debt levels in the NMS are generally lower than in the EMU members. As catching-up economies, they also have a higher potential growth rate, as well as higher BS-induced inflation and hence lower real interest rates once they are in EMU and face similar nominal interest rates. The combination of these factors would, *ceteris paribus*, imply that the NMS could run higher deficits and still maintain the long-run sustainability of public finances. However, when assessing debt sustainability, one also has to take into account future liabilities. The most important of these are future pension payment obligations and health care outlays for the elderly due to population ageing.

As can be seen in Table 3, the old-age dependency ratios in the NMS are somewhat below those of the EU-15, but the fertility rates are also smaller which, combined with an increase in life expectancy that will accompany the growth in per capita income in the NMS, will sharply raise the dependency ratios. In the Czech Republic, Hungary and Poland these ratios are projected to double or more than double by 2050. The burden that these population trends implies for the government budgets can be reduced by reforming the pension systems, such as introducing a second pillar funded scheme (but the transition cost of exiting from the pay-as-you-go system remains), raising the level of retirement age, tightening eligibility for early retirement or reducing the replacement rate. About half of the NMS have already introduced a multi-pillar system and others plan to do so (European Commission, 2003). A second element of future liabilities that can burden the budgets of the NMS in the years ahead is the overall stock of guarantees granted mostly for enterprise borrowings in the sectors of public transportation and energy. Although the stock of guarantees has been substantially reduced as a result of privatization, it remains important in some countries.

Insert Table 3

It is difficult to judge the optimal target for public debt. It depends, as said, on the crowding out effect of interest payments and the negative output effect of the taxes to finance these payments. Furthermore, it also depends on the future rate of return of the expenditures that are financed by borrowing, such as investments and reforms that benefit future generations, or reforms that reduce future liabilities (e.g. pension reforms). IMF (2004) suggests a prudent public debt ratio of around 45 percent of GDP for the CEEs. The UK Government's fiscal policy objective is to maintain net debt below 40 percent of GDP over the economic cycle. Using these numbers as a benchmark for illustrative purposes - - but without suggesting that this is an appropriate debt level for all countries under all circumstances -- we show in Table 4 the improvement in the primary balances needed to reach a 40 percent debt/GDP

ratio within ten years in the CEEs. A positive value in Table 4 shows in percent of GDP the size of the improvement in the primary balance needed now and to be kept constant in order to reduce the debt/GDP ratio to 40 percent in ten years in case the current level of debt exceeds 40 percent, or the improvement needed in order not to exceed the limit in case the current level of debt is less than 40 percent. A negative value indicates the "permissible" deterioration in the primary balance without exceeding the debt limit. As can be seen from Table 4, Cyprus, the Czech Republic, Hungary and Malta need significant improvements in the primary balances in order to avoid that their debt levels exceed 40 percent of GDP by 2013. This is because both the debt levels and the primary deficits are high in these countries. Poland and Slovakia need only a small improvement, while the Baltic countries and Slovenia could in principle let their primary balances deteriorate, since they have low debts and low primary deficits or have surpluses.

Insert Table 4

3.   **Summary of findings**

Our main findings regarding the fiscal characteristics of the NMS from the perspective of the Maastricht criteria and the SGP can be summarized as follows.

There are large differences among the NMS as to their starting fiscal positions. The budget deficits of the Baltic states and Slovenia were already smaller than 3 percent of GDP in 2003 and these countries have also the lowest debt/GDP ratios among the NMS, well below 60 percent of GDP. Estonia scores the highest, with practically no government debt and an overall budget surplus. Those countries which have recorded the largest deficits in 2003, Cyprus, the Czech Republic, Hungary and Malta, have also the highest debt levels. Clearly, the NMS cannot be regarded as a group but have to be looked at on a case-by-case basis.

The new members, particularly those with less favorable starting fiscal positions, face great challenges on the road to EMU because the potential budgetary gains from yield convergence are limited and EU accession will have a net negative impact on their budgets in the initial years of accession. At the same time, pension and other needed reforms, as well as the necessity to keep up with the higher level of infrastructure investment, imply additional budgetary burdens.

The level of debt is generally lower in the NMS than in the EMU members. They also have higher potential growth and will face lower real interest rates within EMU due to the higher BS-induced inflation, which improve their prospects of debt sustainability. However, they also face considerable budgetary pressures in the medium to long-run because of the high stock of government guarantees in some countries and ageing related future pension and health care payment obligations.

IV.   **Policy Implications**

The main ideas that we would like to communicate in this paper which have a policy implication are the following:
1.   From a debt sustainability perspective, the lower debt and the prospect of faster growth implies that the NMS could be given a longer period of time to reach the 'close to balance or in surplus' position once they have joined EMU. This would be also justified because the NMS need more infrastructural development and EU accession will put additional burden on the budgets in the initial years of membership.

We should remember that in the run-up to EMU, the current cohesion countries were the recipients of much larger EU transfers than what the NMS are expected to receive in the coming years. More research should be undertaken to define debt sustainability taking also into account future liabilities, so that more concrete guidelines could be issued for the required speed of adjustment.

It has been sometimes suggested that the SGP or its interpretation need to be modified to take into account the special circumstances of the new Member States. The large differences in the initial conditions of the NMS do not support that argument. Indeed, several current EMU members have lower debt than some of the NMS and the less developed current euro zone members have also higher potential growth than the other members. The improvement of the SGP is needed not because of enlargement, but because it makes good economic sense to take into account the differences in initial conditions for all countries. Enlargement only highlights the need for improvement by widening the differences among countries subject to the provisions of the SGP.

A misconception has to be corrected in this regard. In many documents and declarations reference is made to the "equal treatment" of members when talking about the uniform application of the provisions of the SGP. Equal treatment in an economic sense would mean that one differentiates according to initial conditions and future liabilities. Uniformity in this case is not equal treatment. One can, therefore, support those suggested improvements in the SGP that would take into account more explicitly differences in debt levels, economic growth, demographic trends and reforms that reduce future liabilities.

2.   Giving more time to reach the 'close to balance or in surplus' position within EMU would not help those countries which exceed the 3 percent deficit limit and have to reduce the deficit to be able to join the monetary union. However, since these countries have also the highest debt levels, they have an interest in reducing the deficit to below 3 percent earlier rather than later so that they can benefit from a reduction in debt service payments which would free resources for other purposes – and that irrespective of when they plan to join EMU.

There is also another reason why the high-deficit NMS have to reduce the fiscal deficit. As long as they are not within the EMU, they are exposed to speculative capital movements triggered by market perception about the sustainability of the external payments position[22]. While the rate of investment in the NMS will remain high, they also face the prospect of an erosion of net household savings as a result of credit booms. Household credit is typically very low in the CEEs and one can expect a rapid growth in such credit as a result of the declining interest rates, the prospect of higher permanent income levels, and the greater willingness of banks to lend to households as they move into retail banking, an area which the banks have eschewed so far because of the higher perceived risks. Hungary has already experienced a sharp reduction in net household savings in recent years. Under these circumstances, the burden falls on the budget to maintain an external position which is seen as viable by the markets. If the cyclical upturn that has just started proves to be durable, this would be an ideal time to accelerate the consolidation in the high-deficit NMS without the risk of having to pursue procyclical policy in a downturn. Since the government sector in the NMS is already oversized relative to their per capita income, consolidation should be done through cutting current primary spending, while leaving room for

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[22] Barnhill and Kopits (2003) discuss the fiscal vulnerabilities faced by emerging markets.

those expenditures that are necessary for the building up of the stock of public capital and for the implementation of reforms that will bring long-term benefits.

3.   More emphasis should be placed on improvements in budgetary procedures. Budgetary practices vary a great deal from one country to another: the forecasting, planning, implementing, accounting and monitoring procedures are not the same. Deficiencies in these areas can lead to forecasting errors and *ex-post* revisions of data that make enforcement difficult and eventually undermine credibility. Guidelines for best practices in budgetary procedures could be issued by the Council and included in the monitoring under the SGP.

4.   Finally, we have to recognize that the Maastricht-related constraints have led to a significant reduction in the deficits and debt levels of the current euro zone members and there is no evidence that it has impaired the stabilization role of fiscal policy or that it had negatively affected public investment (Gali and Perotti, 2003). As long as fiscal policy remains decentralized, rules are needed to ensure the proper functioning of the common monetary policy. Enlargement strengthens the need for rules, since one can observe in several NMS mounting popular pressure for relaxing fiscal policy as expectations are heightened with EU accession. But the rules have to be respected by all. It will be difficult to get political support in the new Member States for the argument that they have to meet the 3 percent deficit requirement to join the monetary union while current members continue to breach that limit.

Figure 1: Deviations from the Maastricht Deficit Criterion of 3 Percent of GDP Prior to EMU Entry[*]
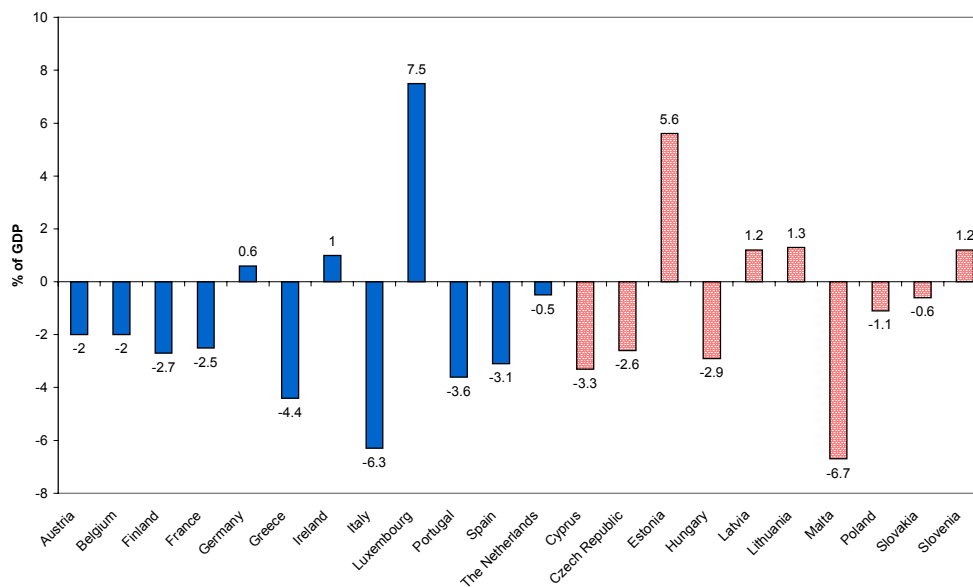
Source: EUROSTAT and Ministry of Finance of the Czech Republic

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[*] For the euro zone members, five years prior to EMU entry: 1996 for Greece and 1994 for the other members. For the new Member States the data refer to 2003. General government net borrowing as a ratio of GDP on the basis of ESA95. The figure for the Czech Republic does not include debt assumptions.

**Figure 2: Debt Ratios Prior to EMU Entry and in 2003**[*]
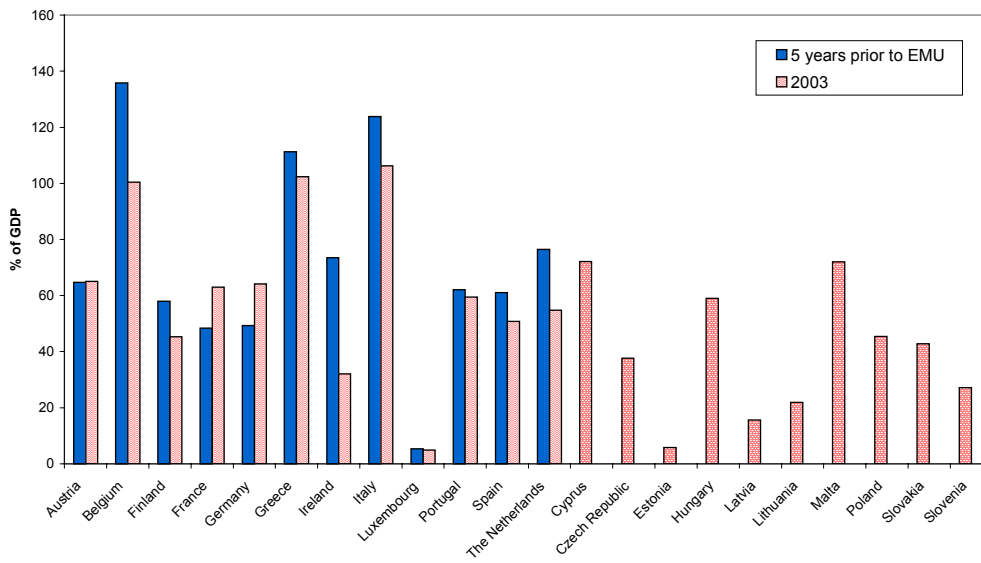
Source: EUROSTAT

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[*] For the euro zone members in 2003 and five years prior to EMU entry: 1996 for Greece and 1994 for the other members. For the new Member States the data refer to 2003. General government consolidated budget debt as a ratio of GDP.

Figure 3: Bond Yield Convergence in the Run-Up to EMU and Scope for Convergence in New Member States[*]
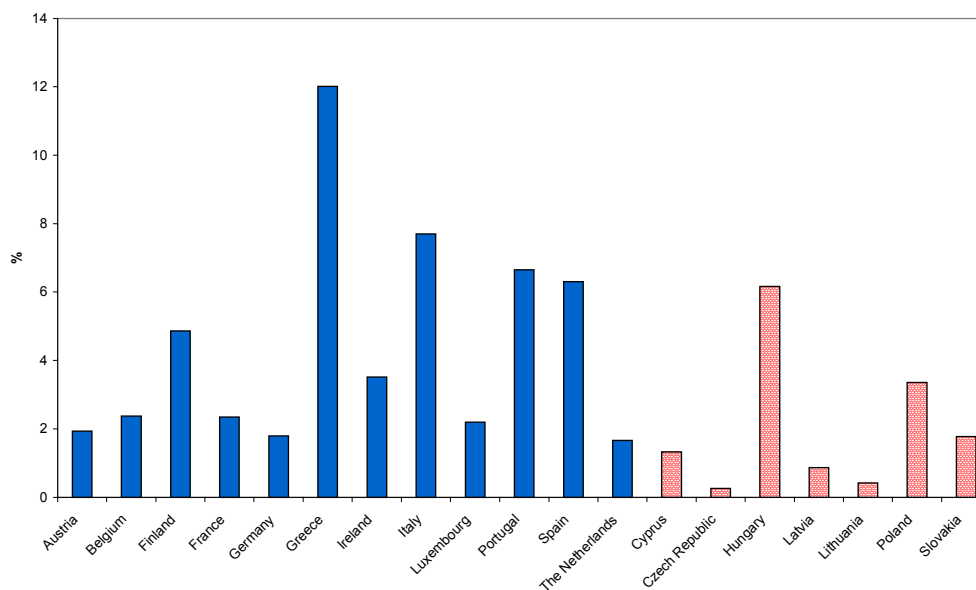
Source: EUROSTAT, National Bank of Slovakia

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[*] For EMU countries, convergence criterion bond yields: the difference in yields between March 1995 and March 2000 for Greece and between March 1993 and March 1998 for the other EMU countries. For new Member States, the difference between 5-year domestic bond yields and the 5-year euro bond yield in January 2004.
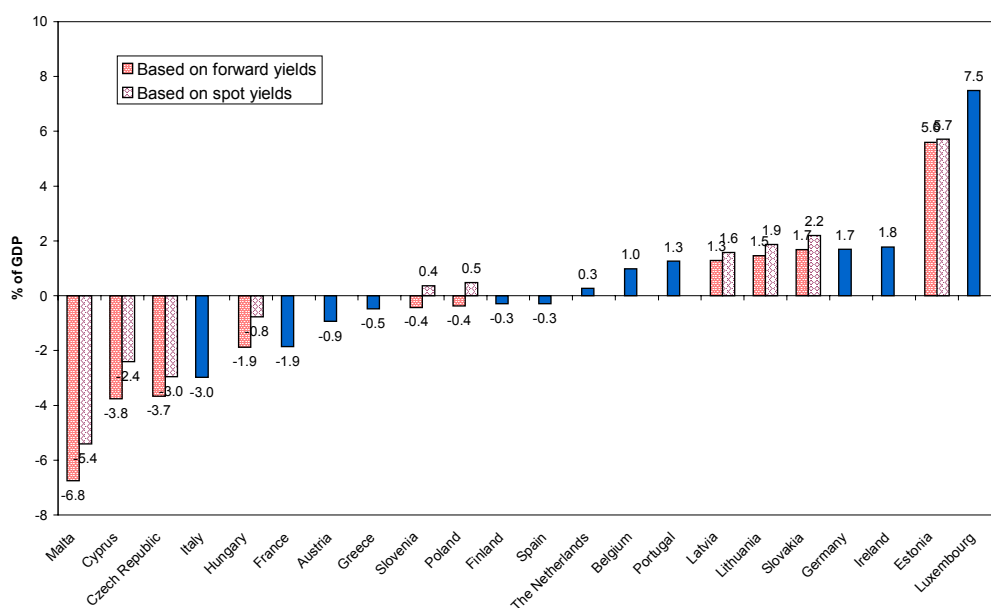
Figure 4: Gains in Interest Payments due to Bond Yield Convergence in the Run-Up to EMU[*]
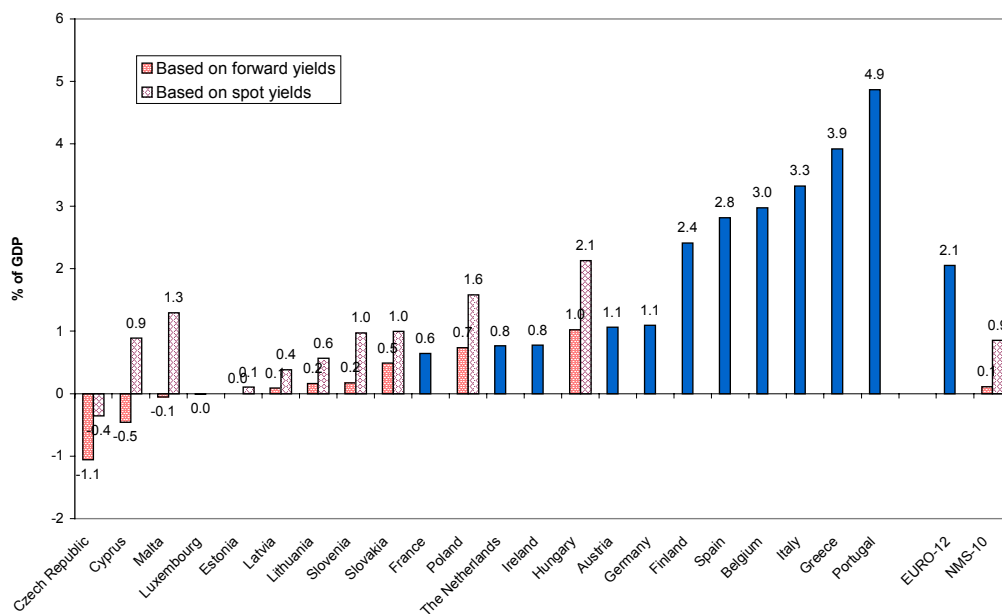
Sources: Authors' calculations using EUROSTAT data for debt ratios and Magyar Nemzeti Bank for euro bond yields

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[*] For the euro zone countries, interest rate convergence gains during 1995-2000 for Greece and during 1993-1998 for the other euro zone members. The calculations were made on the basis of the end of period debt/GDP ratios. For the new Member States, the calculations were based on 5-year euro bond spot and 2009 forward yields. Constant debt/GDP ratios were assumed up to 2009.

Figure 5: Required Improvements in the Primary Balances to Reach the Maastricht Deficit Criterion of 3 Percent Taking Account of Gains from Bond Yield Convergence[*]

Sources: Authors' calculations using EUROSTAT data for debt ratios and Magyar Nemzeti Bank for euro bond yields

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[*] See footnote for Figure 4. A negative value shows the required improvement and a positive value the „permissible" deterioration in the primary balance in order to meet the 3 percent deficit limit.

Figure 6: Per Capita Income and Government Spending in the EU-14[*] and the CEEs[**], 1998-2002 averages
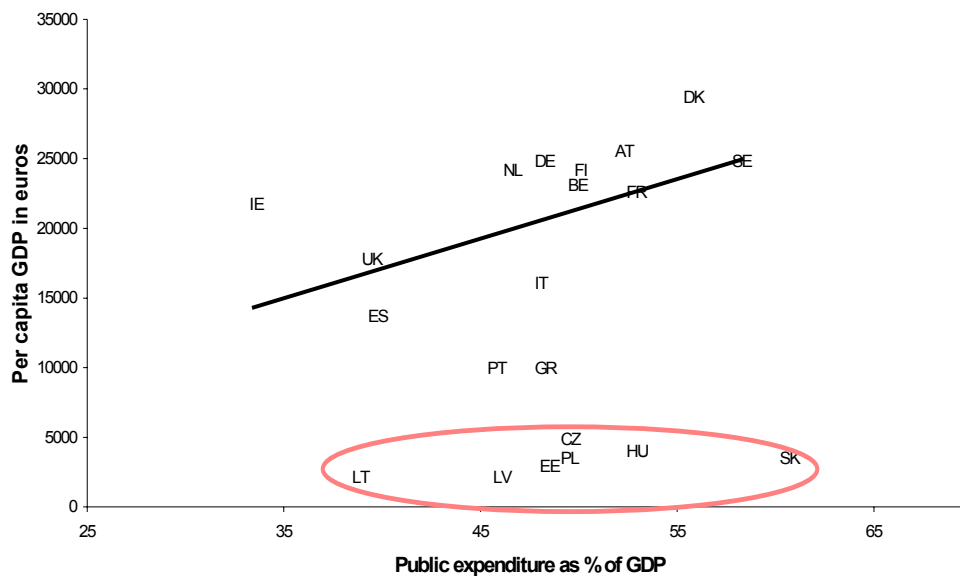
Source: EUROSTAT

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[*] Luxembourg is not included in the sample.
[**] CEEs: acceding Central and Eastern European countries of transition excluding Slovenia.

Figure 7: Average Government Investment Ratios in the EU-15 and the CEEs[*], 1993-2003
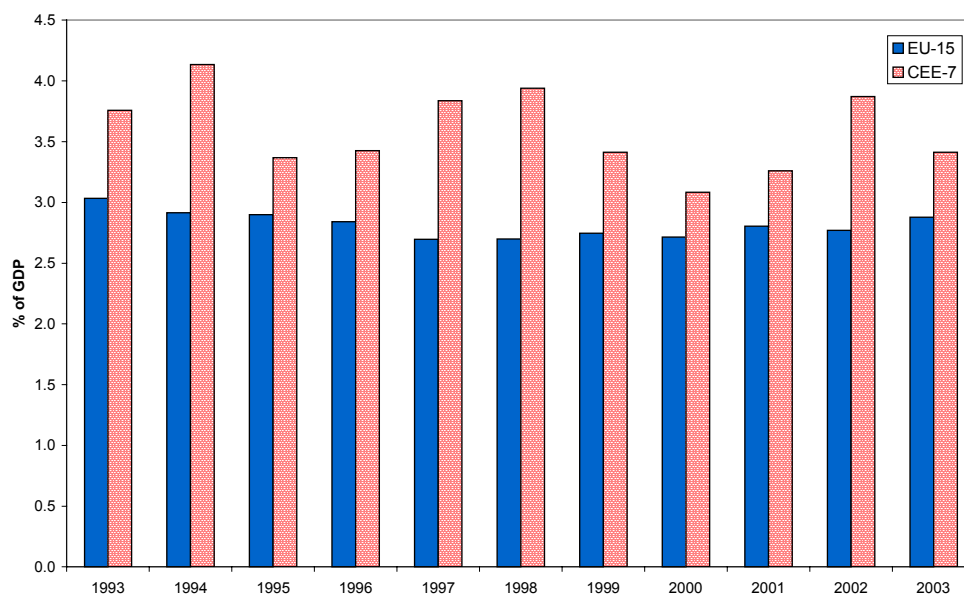
Sources: AMECO database and Magyar Nemzeti Bank

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[*] CEEs: acceding Central and Eastern European countries of transition, excluding Slovenia. Figures are unweighted averages. Data for 2003 are preliminary.

Table 2: Cyclical Budget Sensitivity and Minimal Benchmarks

	Cyclical Budget Sensitivity	The Largest Value of Output Gap	Cyclical Safety Margin	Minimal Benchmark
		in percent	in percent	in percent
EU-15	**0.50**	**3.83**	**1.97**	**-1.03**
Belgium	0.60	3.83	2.30	-0.70
Germany	0.50	3.38	1.40	-1.60
Spain	0.40	2.80	1.50	-1.50
France	0.40	3.25	1.30	-1.70
Ireland	0.35	3.75	1.70	-1.30
Italy	0.45	3.25	1.50	-1.50
Luxembourg	0.60	4.86	3.10	0.10
Netherlands	0.65	3.33	2.30	-0.70
Austria	0.30	5.17	0.90	-2.10
Portugal	0.35	3.54	1.80	-1.20
Finland	0.70	3.00	3.80	0.80
Denmark	0.80	5.14	2.70	-0.30
Greece	0.40	5.43	1.30	-1.70
Sweden	0.70	3.14	2.20	-0.80
United Kingdom	0.50	3.60	1.80	-1.20
CEE-8	**0.41**	**4.26**	**1.68**	**-1.32**
Czech Republic	0.40	4.20	1.70	-1.30
Estonia	0.41	4.78	1.95	-1.05
Hungary	0.44	3.65	1.62	-1.38
Latvia	0.33	4.22	2.01	-0.99
Lithuania	0.33	6.05	1.39	-1.61
Poland	0.49	3.87	1.88	-1.12
Slovakia	0.40	3.87	1.55	-1.45
Slovenia	0.45	3.44	1.54	-1.46

Sources: EU-15: European Commission (2002); CEE-8: see Annex.

Table 3: Dependency Ratios and Fertility Rates[*]

	Old-age Dependency Ratios (in percent)		Total Fertility Rate
	2000	2050	2003
EU-15	**25.95**	**51.40**	**1.57**
Belgium	28.10	49.50	1.62
Denmark	24.20	40.30	1.72
Germany	26.60	53.20	1.31
Greece	n.a.	n.a.	1.25
Spain	27.10	65.70	1.25
France	27.20	50.80	1.89
Ireland	19.70	45.70	1.97
Italy	28.80	66.80	1.26
Luxembourg	n.a.	n.a.	1.63
Netherlands	21.90	44.90	1.73
Austria	25.20	58.20	1.40
Portugal	26.70	50.90	1.47
Finland	25.90	50.60	1.72
Sweden	29.40	46.30	1.65
United Kingdom	26.60	45.30	1.64
NMS-10	**22.00**	**53.30**	**1.29**
Cyprus	n.a.	n.a.	1.49
Czech Republic	21.90	57.50	1.17
Estonia	n.a.	n.a.	1.37
Hungary	23.70	47.20	1.30
Latvia	n.a.	n.a.	1.24
Lithuania	n.a.	n.a.	1.24
Malta	n.a.	n.a.	1.46
Poland	20.40	55.20	1.24
Slovakia	n.a.	n.a.	1.19
Slovenia	n.a.	n.a.	1.21

Sources: OECD (2003) and EUROSTAT

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[*] Old-age dependency ratio is equal to (persons aged 65+)/(persons aged 20-64). Total fertility rate is defined as the average number of children who would be born alive to a woman during her lifetime. In more developed countries, a rate of 2.1 is considered to be replacement level.

Table 4: Primary Deficit Gaps to Reach 40 percent Debt/GDP Ratios in Ten Years under Different Assumptions for Growth and Real Interest Rates (In percent of GDP)

Cyprus	Real interest rates	
GDP-growth	2%	4%
3%	5.66	6.78
4%	5.12	6.22
5%	4.59	5.67

Czech Rep.	Real interest rates	
GDP-growth	2%	4%
3%	3.08	3.84
4%	2.72	3.46
5%	2.35	3.09

Estonia	Real interest rates	
GDP-growth	2%	4%
3%	-6.53	-6.12
4%	-6.74	-6.32
5%	-6.95	-6.52

Hungary	Real interest rates	
GDP-growth	2%	4%
3%	3.21	4.19
4%	2.74	3.70
5%	2.27	3.22

Latvia	Real interest rates	
GDP-growth	2%	4%
3%	-1.70	-1.12
4%	-1.99	-1.41
5%	-2.28	-1.70

Lithuania	Real interest rates	
GDP-growth	2%	4%
3%	-1.80	-1.28
4%	-2.06	-1.54
5%	-2.32	-1.79

Malta	Real interest rates	
GDP-growth	2%	4%
3%	8.64	9.76
4%	8.10	9.20
5%	7.58	8.65

Poland	Real interest rates	
GDP-growth	2%	4%
3%	1.12	1.96
4%	0.72	1.54
5%	0.32	1.13

Slovakia	Real interest rates	
GDP-growth	2%	4%
3%	1.08	1.88
4%	0.68	1.48
5%	0.30	1.08

Slovenia	Real interest rates	
GDP-growth	2%	4%
3%	-1.71	-3.93
4%	-2.03	-4.10
5%	-2.34	-4.27

Source: Authors' calculations based on EUROSTAT data

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ANNEX: **The Calculation of Cyclical Safety Margins**

The Commission has estimated cyclical safety margins for each EU Member State expressed as a percent of GDP[23]. This indicator shows the size of the deterioration in the budget balance in case output falls short of potential output. Subtracting these safety margins from the 3 percent reference value of the Maastricht Treaty, we obtain the so-called "minimal benchmark", which is the cyclically adjusted deficit consistent with the 3 percent limit.

The calculation of cyclical safety margins consists of two steps: the calculation of the largest output gap that a member country is likely to encounter and the sensitivity of its budget to the economic cycle. The budget sensitivity indicator is an elasticity of the budget deficit to the output gap, calculated as a weighted average of elasticities of the following budget items: direct taxes, indirect taxes and social security contributions on the revenue side, and unemployment benefits on the expenditure side.

1. The largest value of output gap

We followed the Commission's approach to calculating the largest value of output gap for the new members. The output gap is obtained as the logarithmic difference of actual and trend output:

$$OG_{ti} = y_{ti} - \hat{y}_{ti} \tag{1}$$

where OG_{ti} stands for the output gap for the i-th country in period t, y_{ti} is the log of actual output for country i in period t, and $\hat{y}_{ti}$ is the trend of log output y for the i-th country in period t.

The largest output gap that country i is likely to face (GAP_i) is calculated as a combination of three sub-indicators: a) the absolute value of the largest negative output gap recorded in country i over the whole sample period (1995-2002 in our case); b) the unweighted average of the three largest negative output gaps in all countries studied (the 10 new Member States in our case) over the whole sample period; and c) the average volatility of the output gap in each new Member State, measured as twice its standard deviation. The largest value for the output gap is calculated as the mid-point of the worst two of these three sub-indicators. We excluded from our calculations the years before 1995, a period of a transformation recession when GDP fell sharply in the CEEs.

2.   The budget sensitivity indicator

The sensitivity of the budget (*SENS*) to the output gap is a weighted average of the elasticities of budget items for each country:

$$SENS = \varepsilon_{DT}\, dt\, +\, \varepsilon_{IT}\, it\, +\, \varepsilon_{SC}\, sc\, -\, \varepsilon_{UB}\, ub \ , \tag{2}$$

where ε_{DT}, ε_{IT}, $\varepsilon_{SC,}$ are the output elasticities of revenue from direct taxes, indirect taxes and social security contributions; ε_{UB} is the output elasticity of unemployment benefits, and *dt, it, sc* are the ratios of revenue received from direct taxes, indirect taxes and social contributions to GDP. *ub* is the ratio of unemployment benefits to GDP.

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[23] For the latest estimates, see European Commission (2002).

3. Cyclical safety margins and minimal benchmarks

Cyclical safety margins (*CSM*) are calculated as a product of the largest output gap and the budget sensitivity indicator:

$$CSM_i = GAP_i \times SENS_i \qquad (3)$$

The value of *CSM* shows the extent to which the budget balance in a given country is likely to deteriorate in times of severe economic downturn.

Finally, the minimal benchmark (*MB*) is the gap between the cyclical safety margin and the Maastricht reference value of 3 percent:

$$MB_i = 3\% - CSM_i \qquad (4)$$

The minimal benchmark shows the cyclically adjusted deficit consistent with the 3 percent reference value.

4. Sources and description of data

The Commission uses annual GDP figures since 1960 for the calculation of trend GDP and output gaps. In the Central and Eastern European countries, the sample period is very short due to structural changes and severe transformation recessions in the early nineties, so we took seasonally adjusted quarterly data since 1995 (on constant 1995 prices). For the sources of quarterly data refer to Darvas and Szapáry (2004). Following the methodology of the Commission, we obtained trend output using the Hodrick-Prescott filter with the standard parameter of 1600 for quarterly data[24].

For the relative weight of each revenue item we used the AMECO database. As for the expenditure side, in the absence of readily available data across countries for a sufficiently long period of time, we used the data for unemployment benefits from Riboud et al. (2002); for the output elasticity of unemployment benefits, we used the estimate for the Czech Republic calculated by the Czech Ministry of Finance which can be regarded as an approximation of the elasticities in the CEEs.

5. Assumptions and limitations of the methodology

There are some implicit assumptions in the Commission's methodology of calculating cyclical safety margins which limit its applicability and require caution when interpreting the results, as pointed out also by the Commission itself. Namely, constant values are assumed for (1) the share of the relevant budget items in the total budget (in our case these were 10-year averages); (2) the cyclical elasticities of the relevant budget items; and (3) the structure of GDP so that a 1 percentage point change in output gap is assumed to affect all tax bases in the same way[25].

We did not attempt to estimate the income elasticities of the revenue items due to the shortage of readily available data. Instead, we assumed that they are equal to one. This is very close to the average value estimated for the OECD countries (see van den Noord, 2000).

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[24] European Commission (2000) calculated the output gap as a deviation of output from trend obtained using the HP-filter. However, in its latest calculation (European Commission, 2002), the Commission estimated potential output using the production functions approach.

[25] This assumption was relaxed in the more sophisticated approach of ECB (2001).