

The Baltics: Medium-Term Fiscal Issues Related to EU and NATO Accession

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The Baltics—Medium-Term Fiscal Issues Related to EU and NATO Accession

Prepared by Johannes Mueller (head), Christian Beddies, Robert Burgess, Vitali Kramarenko, and Joannes Mongardini¹

Approved by Peter M. Keller

December 21, 2001

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I. INTRODUCTION AND OVERVIEW

1. **Ten years after regaining their independence, the three Baltic countries—Estonia, Latvia, and Lithuania—are on the verge of acceding to the European Union (EU) and NATO.** During the course of the decade, sound macroeconomic conditions and full-fledged market economies have been created (Box 1).

2. **The 1993 EU Copenhagen summit took a decisive step towards enlargement.** Countries in central and eastern Europe associated with the EU would be given the opportunity to accede to the EU—making enlargement a question of when, rather than if. However, it was also decided that prospective membership would be subject to the fulfillment of certain criteria, known as the Copenhagen Criteria. According to these criteria, accession to the EU requires, among other things, the existence of a functioning market economy and the capacity to cope with competitive pressure and market forces within the Union; and the ability to take on the obligations of membership including adherence to the aims of political, economic and monetary union.²

3. **All three Baltic countries are now considered capable of meeting these requirements.**³ As of end-November 2001, Estonia, Latvia, and Lithuania have closed more than half of the 31 negotiation chapters of the EU *acquis communautaire*, including the difficult environmental chapter, and are expected to close the remaining chapters by end-2002. This has raised the prospect of all three countries being invited to join the EU in 2004, following the decision of the Laeken European summit in December 2001.⁴ In the same vein, the Baltics could be invited to join NATO in the near future.

4. **Building on the achievements to date, the next few years will be crucial for meeting the pre-accession requirements for both the EU and NATO while maintaining strong and sustainable growth in a low-inflation environment.** The fiscal policy challenges facing the three Baltic countries (and the other accession candidates) in this regard are formidable:

- From a macroeconomic point of view, given the exchange rate regimes,⁵ fiscal policy represents the main macroeconomic instrument at the disposal of the authorities to contain external current account deficits.

² See, for example, European Commission (2001a).

³ See the *2001 Regular Reports on Progress Toward Accession* (European Commission (2001b)).

⁴ The Laeken summit concluded that if the present rate of negotiations and reforms was maintained, the candidate countries could be ready to accede to the EU in 2004, in time for their participation in the elections to the European Parliament in the fall of 2004.

⁵ Estonia (since 1992) and Lithuania (since 1994) have operated under a currency board arrangement (CBA) anchored on the DM/euro and the US dollar, respectively. Lithuania recently announced its intention to switch to a euro anchor in February 2002. Latvia has maintained a conventional peg to the SDR since 1994.

Box 1. Macroeconomic Stabilization and Structural Reforms in the Baltics During the Transition Years

A decade after regaining independence, the Baltics are now fully functioning market economies. The cornerstones of this successful transition were the fast privatization of public enterprises with reliance on foreign strategic investors, a free trade regime, full current and capital account convertibility, early establishment of a legal framework for private activity, and a transparent macroeconomic policy framework. The speed and depth of the reforms reflected broad public support for freeing the economies from the legacies of Soviet planning.

The Baltics successfully stabilized their economies early on by firmly pegging their exchange rates and following prudent fiscal policies (Figure 1). After a sharp initial contraction,¹ growth resumed in 1994 and was among the highest in transition economies in 1997. Despite the liberalization of most prices, inflation was quickly brought under control and is converging toward levels prevailing in the EU. External current account deficits have been quite large since 1994, but large FDI inflows covered much of the domestic saving-investment gap. The rapid recovery from the Russia crisis in 1998 testifies to the resilience of the Baltics to external shocks.

The Baltic countries adopted a tight fiscal stance to support their fixed exchange rate regime. Fiscal deficits were quickly reduced, mainly through a strong revenue effort, and maintained at or near balance during 1995-98. While the Russia crisis led to a widening of fiscal deficits in 1999, this was largely reversed in 2000. As a result of the prudent fiscal policies, public debt is very low by international standards, particularly in Estonia and Latvia.

Small enterprise privatization was completed fairly early in transition, utilizing a mix of insider and voucher privatization. With large-scale privatization, Estonia and Latvia have emphasized seeking strategic partners and selling controlling interests in enterprises; Estonia has largely completed this process. Lithuania has relied more heavily on vouchers in its large-scale privatization but also used tenders for strategic investors.

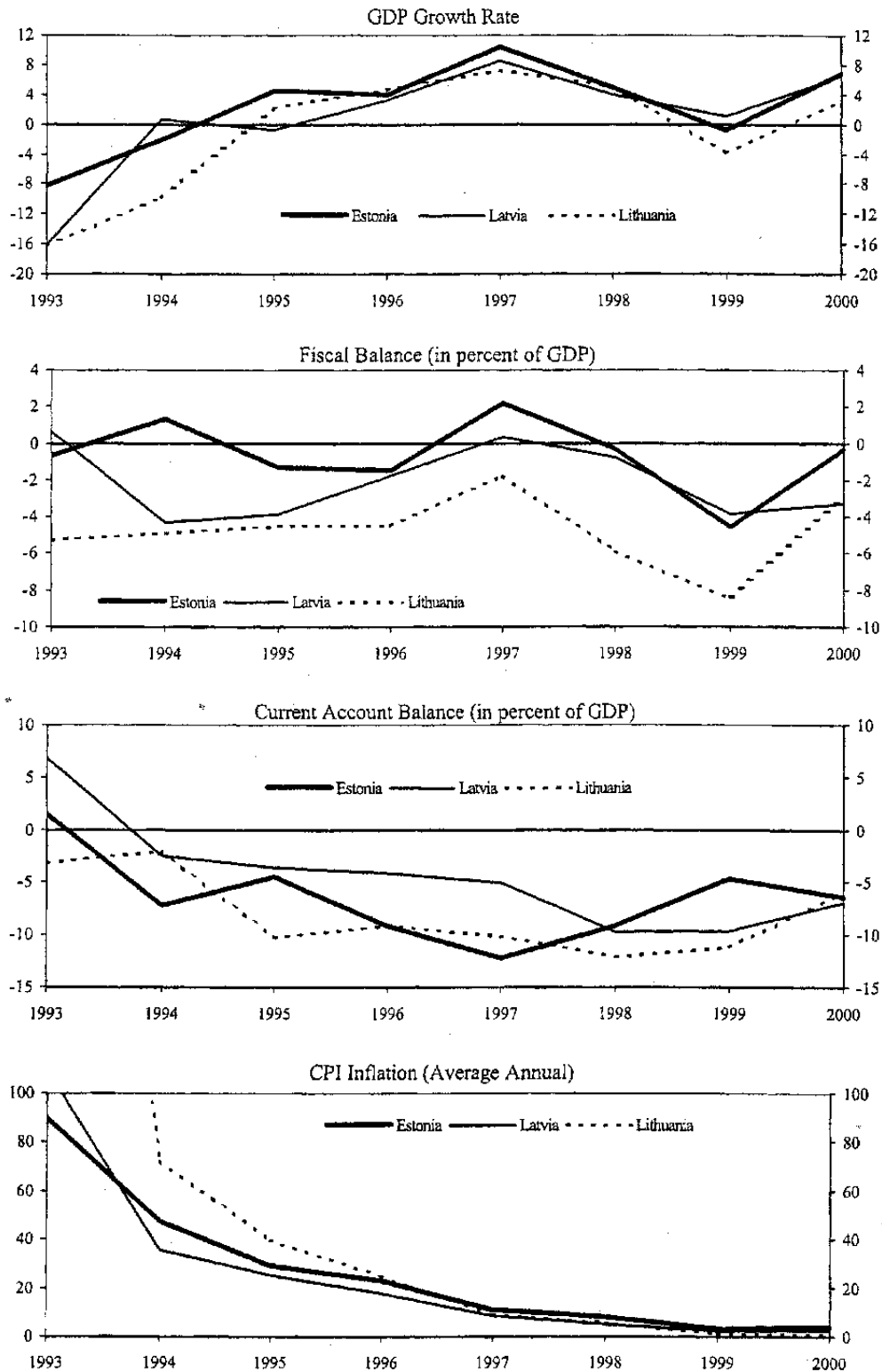
While privatization has been important for enhancing enterprise performance and restructuring, well-developed bankruptcy procedures, a good legal and regulatory framework, and a sophisticated financial system play an important part in increasing such dynamism. Estonia leads in these areas, and Latvia and Lithuania are catching up quickly, although proper enforcement and implementation of some newly passed laws will take more time.

The Baltics are also reforming their pension systems. The traditional pay-as-you-go (PAYG) system has been reinforced by gradually increasing the retirement age, indexing benefits, and establishing a closer link between contributions and benefits. In Latvia, the PAYG system was supplemented with a privately-managed, fully-funded second pillar in 2001, while in Estonia and Lithuania, the introduction of a second pillar is envisaged for 2002 and 2004, respectively.

¹ At least according to official statistics. For a different interpretation of the initial output collapse, see Åslund (2001).

- Acquis-related expenditure will be sizable—the annual costs of meeting environmental requirements alone could reach 2 percent of GDP. The extent and timing of such spending will depend on the length of the transition phase accorded by the EU. While transfers from the EU to finance such spending could exceed 1 percent of GDP during the pre-accession phase and reach up to 4 percent of GDP after accession, this would still imply a significant contribution from national budgets.
- In their quest for rapid NATO membership, the respective national governments aim at raising military expenditure to 2 percent of GDP over the medium term.
- The Baltic countries' relatively high tax burden largely precludes reliance on rate increases to strengthen revenues. To the contrary, there has been discussion in all three countries about lowering their direct taxes, especially on labor income and corporate profits. Such efforts have already begun, but the extent to which the tax burden can be lowered hinges on progress in achieving the self-declared balanced budget objective. At the same time, the Baltics are required to harmonize their tax system with EU norms, which would mainly involve raising excise tax rates and broadening of tax bases.

Figure 1. The Baltic Countries: Selected Economic Indicators, 1993-2000



Source: Country authorities; and Fund staff estimates.

- As a result of the EU- and NATO-related spending pressures and the desired easing of the tax burden, a further rationalization of current spending appears unavoidable. To address this need, the Baltics are moving forward with key measures to improve budgeting, expenditure management, and fiscal transparency, but politically difficult choices to curtail non-priority spending will need to be made in the years ahead.

5. **The EU does not prescribe a specific fiscal adjustment path or fiscal policy stance to accession candidates.** However, the candidates are expected to pursue sound macroeconomic policies that will help them grow robustly and sustainably in a low-inflation environment so as to achieve rapid real convergence with the EU. The provisions under the Maastricht Treaty⁶ and the Stability and Growth Pact (SGP)⁷ become binding constraints only *after* accession to the EU, with the former treaty representing the criteria for adopting the euro and the latter pact a continuing obligation as an EMU member.

6. **This leaves open the question of which medium-term fiscal strategy the Baltic countries and other EU accession candidates should pursue in the period leading to EU accession.** This paper aims to provide some guidance in this regard, looking at theory and empirical evidence—including from the EU accession countries of the 1970s and 1980s. It also develops some medium-term fiscal frameworks to illustrate the tensions, trade-offs, and financial flows within the EU that could materialize over the next five years or so.

7. **The paper supports the Baltic authorities' intention to aim at balancing their budgets over the economic cycle.** This is based on a number of considerations, as discussed in Chapters II and III. First, a balanced budget strategy would reduce the public sector's call on national savings, and thus reduce the likelihood of crowding out the private sector and help maintain the low level of interest rates, which has already stimulated private sector-led growth. Second, private saving is projected to broadly level off over the medium-term, requiring that strong government savings are available to help finance the expected rise in public investment and avoid an increase in external imbalances. A balanced budget strategy would thus limit the risks associated with persistent current account deficits and help contain external vulnerabilities; the latter could become a concern especially in the event of a significant reduction in FDI inflows and a concomitant rise in external debt to finance the current account deficits. Third, a cautious medium-term fiscal stance would continue to provide policy-makers with the flexibility to borrow domestically and abroad, at reasonable interest rates, in response to domestic and external shocks. Fourth, moving toward a balanced budget will make the Baltics less vulnerable to possible contagion from other emerging market crises. Fifth, based on political economy arguments, a balanced budget rule could be used to counteract the politically-driven deficit bias. Sixth, the

⁶ Under the 1992 Maastricht Treaty, the general government fiscal deficit should not exceed 3 percent of GDP and gross government debt 60 percent of GDP. These benchmarks could be exceeded if the excess deficit was small and either temporary or had declined significantly, and debt was on a clear downward path.

⁷ The 1997 SGP requires EMU members to achieve cyclically-adjusted fiscal positions that are close to balance or in surplus, so that they can respect the 3 percent deficit ceiling during cyclical downturns. The sanctions part of the SGP applies only to countries that have adopted the euro.

comfortable starting positions would make a balanced budget strategy an achievable near-term goal for all three countries, and also avoid a situation in which the Baltics may be forced to undertake a procyclical fiscal consolidation upon accession to meet, within a short period, the Maastricht or SGP criteria. The latter is especially important given the role of fiscal policy as the *only* significant macroeconomic policy lever available in the Baltics given their fixed exchange rate regimes, and the need, therefore, to maintain a high degree of fiscal flexibility. Finally, it would help ensure fiscal sustainability in the *very* long term, when public debt considerations are likely to become a more binding constraint, for example, due to demographic pressures.

8. **However, other, more traditional concepts of fiscal sustainability do not provide sufficient guidance in this regard.** For example, public debt in the Baltic countries is low by international standards, reflecting the prudent fiscal policies pursued throughout most of the transition period. Similarly, external debt considerations are not expected to pose a policy constraint in the foreseeable future.

9. **The experience of the EU accession countries of the 1970s and 1980s provides valuable lessons to the Baltics.** Chapter IV describes the process of real convergence of these earlier accession countries, while highlighting their similarities and differences with the Baltics. It also assesses the impact of EU integration on the size and composition of their revenue and expenditure. This experience suggests that (i) reducing the tax burden in the Baltics may present a major challenge; (ii) the Baltics are relatively well advanced in harmonizing their indirect taxation, but the adoption of the Common External Tariff may require significant changes; and (iii) transfers from the EU budget may generate an upward pressure on the size of government in the Baltics. The second part of the chapter presents empirical evidence which suggests that prudent fiscal policy and macroeconomic stability may contribute to real convergence.

10. **The Baltics' fiscal challenges are assessed in the context of medium-term frameworks.** The frameworks, presented in Chapter V, are intended to illustrate the expected trade-offs and tensions in the budgets of the three countries over the next few years. They also provide projections for the likely financial flows to and from the EU budget before and after accession. While subject to considerable uncertainty, the scenarios nevertheless highlight the difficult policy choices that are needed to comply with the tax harmonization and acquis-related spending requirements, as well as the rise in military spending to secure early NATO accession. This will imply the crowding out of other, non-priority spending so as to not endanger the achievement of the balanced budget objective.

11. **This reprioritization notwithstanding, discretionary spending would still rise in real terms on average during the next five years.** Under the baseline scenario (assuming EU accession in 2004), the annual real increase in such spending could average about 3 percent in all three countries. This implies a moderate reduction in discretionary spending by about 2 percentage points of GDP between 2001 and 2006. This could mainly be effected by moderate wage increases, coupled with civil service reforms; improved targeting of social benefits; and effective cuts of expenditure on goods and services.

12. **Overall, the Baltics are well placed to face the fiscal challenges of EU and NATO accession.** With modern tax and expenditure structures at the outset and a long tradition of prudent fiscal policy to support the maintenance of their exchange rate regimes, they can be

expected to embrace these challenges in the years ahead. While curtailing non-priority spending may be politically difficult, the benefits from such an undertaking, in terms of improving efficiency of public spending, enhancing growth prospects, and accelerating real convergence with the EU, will ultimately make this endeavor worthwhile.

13. **The paper is organized as follows.** Chapter II describes the Baltics' current fiscal position and structure, to provide a benchmark for the remainder of the paper. Chapter III is devoted to a review of theory and empirical evidence of the possible macroeconomic benefits of fiscal adjustment and adhering to a balanced budget strategy. Chapter IV reviews the experience of earlier EU accession countries prior to and after their accession. The medium-term fiscal frameworks are presented in Chapter V.

II. THE CURRENT FISCAL POSITION AND STRUCTURE OF THE BALTIC COUNTRIES

14. **Fiscal policy represents the main macroeconomic policy instrument at the disposal of the authorities in the Baltics.** This is due to their decision to anchor their macroeconomic stabilization efforts with the adoption of hard exchange rate regimes, which have served the countries well and allowed them to withstand some crisis situations, such as the Asian and Russian financial crises in 1997 and 1998.

15. **Since the mid-1990s, the Baltics have been approaching a balanced budget position, with Estonia and Latvia actually achieving a surplus in 1997.** This trend was interrupted only in the wake of the Russian crisis, when the resulting economic slump, among other things, triggered a significant, yet temporary, rise in the fiscal deficits in 1998 and 1999 in all three countries. The general government fiscal deficit in Lithuania soared to 8½ percent of GDP, while Estonia's and Latvia's deficits rose to about 4½ percent and 4 percent of GDP, respectively, in 1999. This reflected, to some extent, the automatic stabilizers at work, but also a discretionary easing of fiscal policy through significant increases in public pension benefits and public sector wages in Estonia and Latvia and savings restitution payments and net lending in Lithuania.

16. **Subsequently, when economic conditions improved, all three governments embarked upon considerable fiscal adjustment.**⁸ The fiscal deficits were reduced to about 3 percent of GDP in Latvia and Lithuania and 0.3 percent of GDP in Estonia in 2000. Such efforts reflected the improved economy and, in the case of Latvia and Lithuania, a recognition of the need to contain domestic demand and rein in the sizable external current account deficits.⁹

17. **Most of this fiscal adjustment took place through expenditure restraint.** This was most noticeable in Lithuania where the expenditure-to-GDP ratio dropped from about 40 percent in 1999 to 33 percent in 2000. But Estonia and Latvia also succeeded in compressing spending by

⁸ Following buoyant economic activity prior to the Russia crisis, real GDP growth turned negative in Estonia (-0.7 percent) and Lithuania (-3.9 percent) in 1999, while Latvia's growth rate fell to 1.1 percent. In 2000, all three countries recorded a strong recovery of economic activity, with growth rates of 3.9 percent in Lithuania, 6.6 percent in Latvia, and 6.9 percent in Estonia.

⁹ The current account deficits had widened in the wake of the Russia crisis in Latvia and Lithuania to 10 percent of GDP, but narrowed in Estonia. The deficits ranged between 6 and 7 percent of GDP in 2000 in all three countries and are projected to remain broadly at this level in 2001.

4 percentage points each during the period. Apart from reducing capital spending programs, restraint was exercised mainly in the area of pensions and public sector wages, essentially the same categories that had driven up the deficits a year earlier.

18. The fiscal adjustment continued in 2001, and all three countries aim at moving toward a balanced budget. While Estonia is projected to record a moderate surplus in 2001, Latvia and Lithuania are targeting deficits of about 1½ percent of GDP each. This provides the Baltics with a comfortable starting position to achieve a balanced budget over the next few years. Efforts have been made to contain the wage bill, initiate civil service reform, overhaul the national pension systems,¹⁰ and rationalize other spending through targeted public sector reforms. At the same time, efforts to enhance the tax systems and tax administration have been initiated. Strong economic activity also helped sustain high tax receipts in all three countries.

19. The Baltic countries' expenditure and tax structures are similar to those in current EU countries and have little resemblance to those in CIS countries (Boxes 2 and 3). Nevertheless, the composition of spending provides some scope for reprioritization and enhanced efficiency, which will be the focus of the medium-term fiscal frameworks in Chapter V. By contrast, the Baltics will be required to make only relatively marginal changes to their tax systems to meet the requirements of EU membership (Box 4).

Box 2. The Structure of Expenditure in the Baltic Countries

The Baltics, like other transition countries, need to determine the appropriate size of their respective governments. While there is no normative guideline on the optimal size of government, from a positive perspective, a variety of political and economic factors could be assessed to determine such size: per capita GDP, the openness of the economy, the extent of unemployment, dependency ratios, and political variables. Begg and Wyplosz (1999) found that except for Bulgaria, all transition economies included in their sample have oversized governments when controlling for political and economic variables.

Most transition economies have experienced a decline in the size of their governments over the past ten years. At end-2000, the unweighted average of current spending in the CIS was about 26 percentage points of GDP lower than in the euro area and about 16 percentage points lower than in the Baltics (Figure 2). This fairly low expenditure ratio in the CIS has largely been driven by a lack of revenue and available financing, but also reflects some real expenditure cuts, including subsidies and transfers, in the early transition years mandated by the significant drop in output (see Tanzi and Tsibouris (2000) and Gupta et al. (2001)).

By contrast, the expenditure structure of the Baltics and other leading EU accession candidates largely resembles the one in the euro area. However, total spending, especially in Lithuania, is still significantly below the euro area level. Capital spending is higher in most accession countries than in the euro area, largely reflecting the need for EU-related investments and the transition process more generally, but it is noteworthy that such outlays account for a smaller share in total spending in the Baltics relative to the other accession candidates. Given the relatively low debt indicators, interest payments account for only a small part of the Baltics' spending, only comparable to the Czech Republic and Slovenia. The share of spending on goods and services in total spending is relatively large in the Baltics. Social spending is comparatively low in Estonia and Lithuania, limiting the scope for reductions, although improved targeting, together with the impact of the pension reforms being undertaken, may yield some savings. By contrast, social spending in Latvia is close to euro area levels, with a corresponding larger room to improve its targeting.

¹⁰ See Schiff et al. (2000).

Box 3. The Structure of Taxation in the Baltic Countries

The tax structures of the Baltic countries are similar to those in other EU and EU-accession countries, and carry relatively few vestiges of the pre-transition systems (Figure 3). Some features still bear traces of the old system, including: high payroll tax rates which continue to generate a greater share of tax revenues than in most EU and other OECD countries; and in Lithuania, the maintenance of a schedular system of personal income tax.

For the most part, however, the Baltics moved quickly to dismantle the system inherited from the former Soviet Union and adopted new tax laws that reflected the needs of a market-based economy and which were also designed to be consistent with the tax systems prevailing in western Europe. By the end of 1992, all three Baltics had introduced some form of personal income taxation, excise duties on a narrow range of goods, and corporate income tax systems that were rules-driven and not subject to negotiation. Turnover taxes were replaced by VAT in Estonia in 1991 and Latvia in 1992; in Lithuania the turnover tax was complemented with the VAT in 1994. Tax systems were initially characterized by a wide array of exemptions and concessions, including preferential treatment for foreign companies. Overall, however, the trend has been towards simplification with, in many cases, the introduction of a single rate and a broad base for the main taxes, and a sharp reduction in the number of exemptions. Problems with tax arrears that emerged in Lithuania in the early 1990s and in Latvia in the mid-1990s have subsequently been addressed by improvements in tax administration.

As a result, unlike some CIS countries, the Baltics did not experience a precipitous decline in tax receipts in the 1990s (Figure 3). A decline in corporate tax receipts (reflecting poor coverage of the emerging private sector and, to some extent, tax exemptions granted to promote investment) was compensated by the good performance of labor and consumption taxes in response to strong growth and rising real incomes. As with the recovery of economic activity more generally, substantive and sustained reforms in the Baltics led to a better tax performance than more gradual reforms in the CIS (Ebrill and Havrylyshyn (1999)).

The structure of the tax systems in the Baltics compares with those of most OECD countries. The overall tax burden in Estonia is close to the OECD average, and somewhat below the OECD average in Latvia and Lithuania. While below the EU average, the tax burden in the Baltics is similar to those in the lower income EU member states but much higher than observed in almost all advanced economies when they were at similar stages of development. Of the four EU accession countries of the 1970s and 1980s all had a lower average tax burden at that time than the Baltic countries do now (see Chapter IV). Indirect taxes are a significant source of tax revenue in the Baltics, accounting for 42 percent of total tax revenues compared to 31 percent on average across the EU.

The tax mix is fairly diversified, with personal income, social security, and consumption taxes accounting for the major part of revenues. By comparison with EU countries, the share of corporate income tax is low while those of consumption taxes are relatively high. As noted above, the Baltics (especially Estonia and Latvia), like other transition economies, have typically relied on payroll taxes as a major source of revenue, and the share of social security taxes in the Baltics is similar to the EU average. The share of other taxes, including those levied by local governments, is very small.

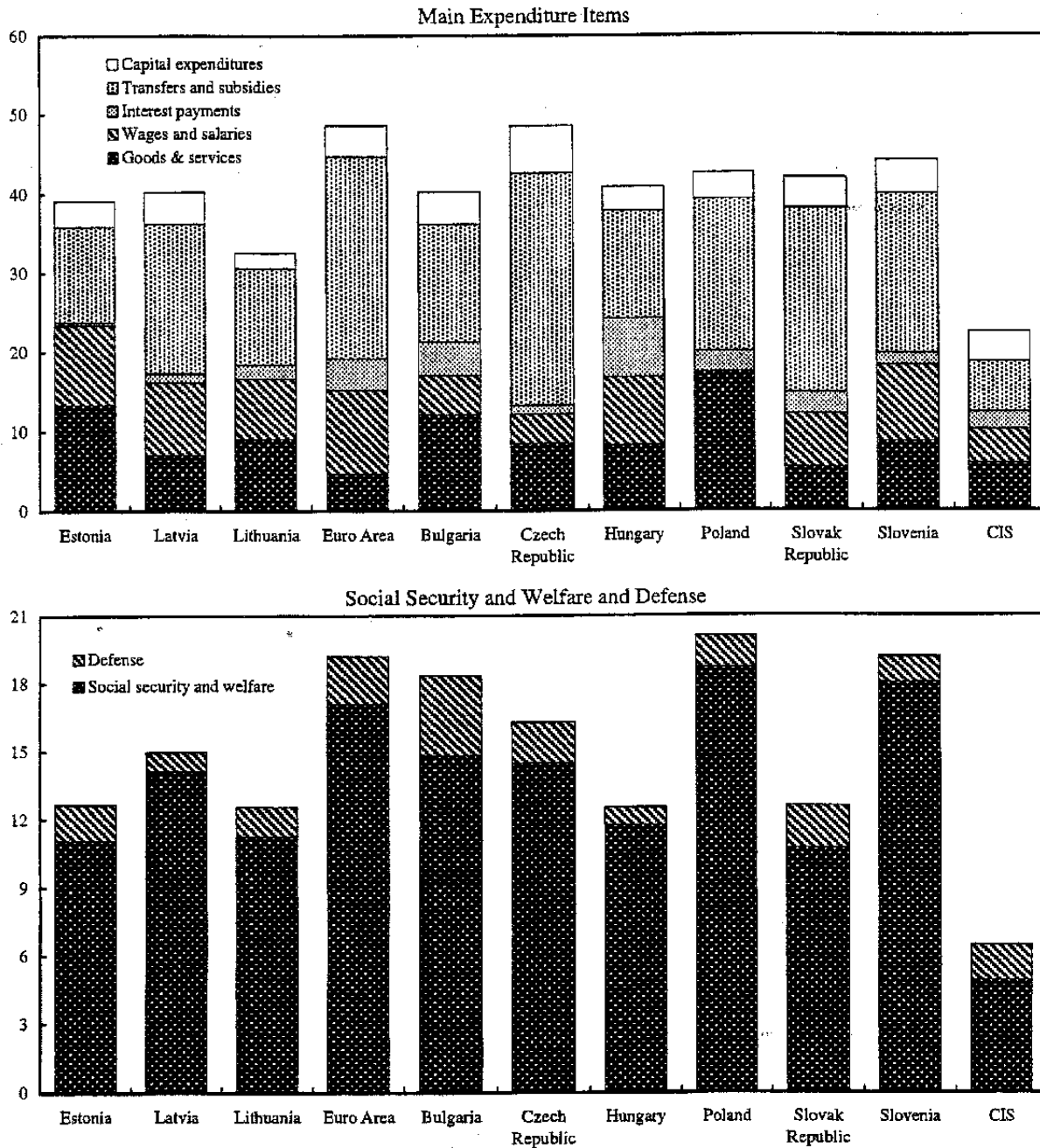
Estonia replaced the corporate profit tax with a tax on distributed profits in 2000. Latvia moved to cut its corporate income tax rate beginning in 2002 in order to attract international investors.

Box 4. EU Accession Requirements on Taxation

EU accession will require some changes in the composition of revenue for the Baltics. It can be expected that tax revenues will be strengthened from efforts to meet these requirements, and that a positive impact on tax administration may also materialize. Briefly, these requirements can be summarized as follows:

- Adoption of the common external tariff and implementation of the institutional arrangements necessary to administer the EU's tariff and trade system;
- Harmonization of indirect taxes through: the application of minimum excises; adoption of a standard rate of VAT of at least 15 percent; limitation of the reduced rate, exemptions and zero-rating for VAT to those goods approved by the EU; establishment of a minimum turnover threshold for VAT registration;
- As to direct taxation, countries need to ensure that their tax systems are: non-discriminatory (between residents and non-residents); consistent with freedom of capital movements within the EU; and comply with the EU's "Code of Conduct on Business Taxation" (which guards against harmful tax competition).

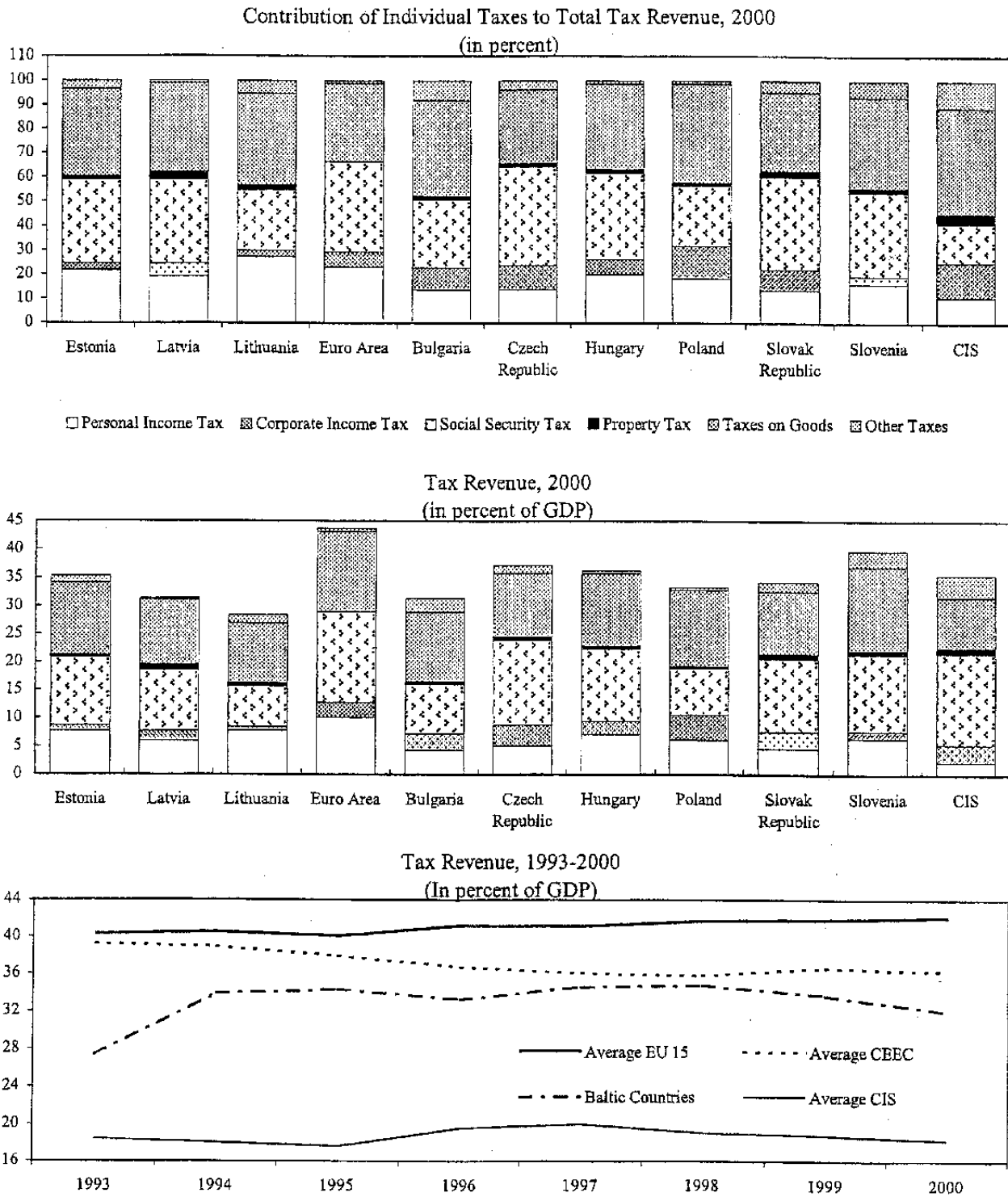
Figure 2. The Baltics Countries and Selected Other Countries: General Government Main Expenditure Items, 2000 1/ (In percent of GDP)



Source: Government Finance Statistics; International Financial Statistics; Country Staff Reports; and the European Central Bank monthly bulletin.

1/ Definitions across countries may differ somewhat due to different sources and methodology applied.

Figure 3. The Baltic Countries and Selected Other Countries: Tax Structure and Revenue 1/



Source: OECD Revenue Statistics; Country Staff Reports; FSU database; European Central Bank monthly bulletin; and staff estimates.

1/ Definitions across countries may differ due to different sources and methodology applied.

III. MEDIUM-TERM FISCAL POLICY: THEORY AND EVIDENCE

20. **This chapter is intended to derive some guiding principles on the appropriate medium-term fiscal stance for the Baltics based on theoretical and empirical evidence.** It will look at: (i) the relationship between fiscal policy and growth, including the extent to which economic performance can be enhanced by shifts in the composition of public expenditure and in the structure of taxation; (ii) determinants of fiscal and external sustainability; and (iii) recent experience with fiscal policy rules.

A. Growth

21. **Fiscal consolidation, depending on how it is achieved, can be conducive to improved economic performance over the medium to long term.** This view is rooted in economic theory and supported by empirical evidence. There is an extensive literature on the relationship between fiscal policy and economic growth (Box 5) from which it emerges that fiscal sustainability is in itself conducive to improved economic performance. This is based on the general notions that: (i) fiscal policy should support efforts to achieve and sustain stable and low inflation; and (ii) the public sector should not absorb an excessive share of national savings. The point at which the public use of national savings becomes excessive is unclear. It will depend, among other things, on the benefits of public spending and the extent of crowding-out and crowding-in effects. Sustained fiscal prudence in Estonia, for example, has been an important factor behind a favorable credit rating and low interest rates, including for private entities (Table 1).

22. **Economic performance can be further enhanced by shifts in the structure of taxation and public expenditure.** Theories of “optimal taxation” suggest that a shift towards indirect taxation can improve economic efficiency by reducing distortions to saving and investment decisions, and thereby raise potential growth. Empirical evidence tends to support this view, and a number of countries in western Europe have sought to modernize their tax systems along these lines. The theory of “optimal expenditure” is less well developed as such, although similar conclusions emerge: it is possible to identify “productive” and “non-productive” expenditure, and a shift in the composition of expenditure towards the former can enhance growth. In addition, the success of fiscal consolidation itself, in terms of both its durability and its impact on growth, partly depends on the manner in which it is achieved. Experience in other countries suggests that consolidation tends to be more successful where it is based on expenditure cuts rather than revenue increases.

23. **There are, however, limits to the extent to which the structure of taxation and expenditure can be altered.** Moreover, such decisions are also subject to a range of non-economic considerations. Tanzi and Schuknecht (1996) study historical trends in public expenditure and improvements in social and economic indicators in industrial countries. They conclude that, as a rule of thumb, total spending could be reduced to about 30 percent of GDP without sacrificing much in terms of social economic objectives. Public spending in the Baltics is above this threshold, albeit only slightly in Lithuania. However, spending on categories which are typically regarded as “non-productive” (i.e., social security and welfare) is already low by international standards, with perhaps the exception of Latvia. This suggests that the Baltics may

need to identify other non-productive or inefficient spending programs which could be cut to create the room for desirable tax cuts or EU-related expenditure, or to facilitate further modest fiscal adjustment where needed.

Box 5. Fiscal Policy and Economic Growth

Fiscal policy can affect economic growth through: (i) the size of the government's budget balance and the resulting government debt; and (ii) the scale and composition of taxation and public expenditure. Permanently large fiscal deficits and the associated rising stock of government debt will tend to lead to an increase in interest rates, crowd out private sector investment, and ultimately reduce growth relative to potential. However, there is little consensus on what constitutes an optimal level of debt, and different economic theories indicate that the optimal level of government debt is likely to be influenced by a disparate range of factors.

Endogenous growth theories suggest that investment in human and physical capital can affect an economy's long-run growth rate, and that some elements of tax and government expenditure can play a role in the growth process.¹ In empirical work on OECD countries, for example, Kneller et al. (1999) find that "productive" expenditure (defined as public services, health and education, transport, and communication) tends to increase growth, while "non-productive" spending (mainly social security and welfare expenditure) has a limited impact. By the same token, Gerson (1998) concludes that expenditure has a more powerful effect on growth rates than revenues and that balanced budget increases in spending on health, infrastructure, and the social fabric, if well-targeted, can be growth-enhancing.

The efficiency losses associated with taxation must also be taken into account when the cost and benefits of public expenditure are being assessed. Leibfritz et al. (1997), for example, estimate that, for a sample of OECD countries, a 10 percentage point increase in the aggregate tax-to-GDP ratio is associated with a reduction in annual GDP growth rates by about half a percentage point.² It may be possible, however, to adjust the composition of taxation to reduce distortions and thus improve economic performance. Optimal tax theory, for example, tends to favor indirect over direct taxation. Kneller et al. (1999) provide empirical support for the optimal tax theory, finding that direct taxes tend to reduce growth, while taxes on goods and services have no significant effect.

The impact of *changes* in the fiscal balance remains an area of some dispute.³ The standard Keynesian view is that fiscal contraction will lower output in the short run through a reduction in aggregate demand. More recent theories, however, have argued that in some circumstances, fiscal contraction can increase growth, even in the short run, for example by reducing large risk premia on interest rates associated with a public debt sustainability problem. This underlines the importance of a credible fiscal policy for achieving investment and growth, and as a precondition to allow the successful use of automatic stabilizers. If deficit or debt levels are already high, then an automatic increase in the government deficit in response to an economic downturn may have a small or adverse rather than stabilizing effect on output, as confidence effects and increases in interest rates outweigh the income multiplier effects.

¹ See Barro and Sala-I-Martin (1992) and Tanzi and Zee (1997).

² Similar results were found by Barro (1989), Plosser (1992), and King and Rebelo (1990). Non-significant or positive correlation was found in other studies, such as Levine and Renelt (1992), Slemrod (1995), and Hendricks (1999).

³ See, for example, IMF (1996), IMF (2001a), Alesina and Perotti (1997), Alesina et al. (1999), and Auerbach and Kotlikoff (1987).

24. **The potential efficiency gains from shifts towards indirect taxation would also need to be matched against equity considerations.**¹¹ Consumption taxes tend to be less progressive than income and payroll taxes. Such a shift would affect intergenerational equity, in favor of

¹¹ There is relatively little progressivity in the tax systems of the Baltics, as personal income is taxed at a single flat rate. What little progressivity there is largely comes through the personal income tax threshold which is currently below the minimum wage.

Table 1: Sovereign Rating of Long-Term Foreign Currency Debt
(As of December 3, 2001)

Rating 1/	Fitch-IBCA	Moody's	Standard and Poor's 2/
Investment Grade			
A+ / A1	...	...	...
A / A2	Slovenia	Slovenia	Slovenia
A- / A3	Estonia, Hungary	Hungary	Czech Republic, Estonia, Hungary
BBB+ / Baa1	Czech Republic, Poland	Czech Republic, Estonia, Poland	Poland
BBB / Baa2	Latvia	Latvia	Latvia
BBB- / Baa3	Lithuania	Slovak Republic	Lithuania, Slovak Republic
Speculative Grade			
BB+ / Ba1	Slovak Republic	Lithuania	...
BB / Ba2	...	...	...
BB- / Ba3	...	...	Bulgaria
B+ / B1	Bulgaria, Russia	...	...
B / B2	Romania	Bulgaria, Russia	Romania, Russia
B- / B3	Ukraine	Romania	...
C+ / Caal	...	Ukraine	...
<i>Memorandum items</i>	Estonia	Latvia	Lithuania
<i>Real interest rates 3/</i>			
End-2000	0.6	2.0	6.5
End-October 2001	-1.1	4.2	4.1

Sources: Fitch-IBCA, Moody's and Standard and Poor's sovereign rating lists.

1/ S&P and Fitch-IBCA scale, followed by equivalent scale for Moody's.

2/ No rating available for Ukraine.

3/ Calculated as 1 month inter-bank offer rate deflated by consumer prices (period averages).

younger generations during the transition period (as pensioners would not reap the benefits of lower taxation on wage incomes). It would also shift the burden of taxation to recipients of transfer incomes (including pensioners and the unemployed). As indirect taxes are already a significant source of tax revenue in the Baltics (see Box 3), the scope for a significant further shift to indirect taxation may therefore be limited.

25. **The scope for future tax reforms is also affected by changes in the nature of the world economy.** Globalization has led to a general switch towards less mobile tax bases as trade and capital account liberalization have increased the potential for tax competition between countries. This has brought about a decrease in statutory and average effective rates of the corporate tax in many countries,¹² and an increase in taxes on labor and consumption in order to preserve overall revenues. Such considerations hold particularly true for the Baltics, given their

¹² The basic statutory rate of corporate income tax in OECD countries fell from an average of 43 percent in 1986 to 33 percent in 1995. The share of such taxes in total tax revenues remained broadly constant over this period at around 8 percent. The share of corporate profits in GDP has increased sharply since the mid-1980s in most OECD countries, and the effective burden of corporate income tax has therefore fallen. See, for example, Owens and Whitehouse (1996).

status as small open economies, increasingly integrated into the European and global economies, and their reliance on foreign savings to finance a substantial proportion of domestic investment. As a practical matter, this means that there are ever more binding constraints on the degree to which the tax treatment of capital and easily transportable commodities in the Baltics can deviate from the practice in neighboring or competing economies. Some such constraints will ultimately also become binding in a legal sense, as the Baltics will be required to harmonize their taxation with EU requirements, as discussed above.

B. Fiscal Sustainability—Public and External Debt Considerations

26. **The sustainability of public and external debt, and the current account, can be key factors in determining an appropriate medium-term fiscal strategy.** But, as argued below—and discussed, in more detail, in Appendix I—none of these factors is likely to present a binding constraint on fiscal policy in the Baltics in the near future provided that current growth rates are sustained and, in the case of external debt sustainability, FDI inflows continue to remain strong.¹³

27. **The level of public debt in the Baltics is enviably low by international standards, reflecting the impact of a prudent fiscal policy stance throughout much of the transition period.** Public debt relative to GDP is particularly low in Estonia and Latvia, at 6 percent and 15 percent, respectively, and is also relatively low by international standards in Lithuania at 29 percent. Public debt ratios in all three countries increased following the loosening of fiscal policies (especially in Lithuania) in the wake of the Russia crisis in 1999, but have since stabilized or started to fall with the return to tighter budgets in 2000 and 2001. With Estonia expected to run a primary surplus this year, and Latvia and Lithuania likely to do so within the next one or two years, public debt ratios are likely to fall further over the medium-term.

28. **While current account deficits have at times been sizeable (Box 1 and Figure 1), they have, for the most part, been financed by non-debt creating FDI inflows, leaving external debt low by international standards.** Annual FDI inflows have averaged around 6 percent of GDP from 1997 to 2000, sufficient to cover around three quarters of the current account deficits over the corresponding period. Net external debt ranged from 13-14 percent of GDP for Estonia and Latvia to 26 percent of GDP for Lithuania in 2000. Current account deficits are expected to narrow somewhat over the medium-term. FDI inflows may moderate somewhat following the completion of most major privatization projects, but are expected to remain substantial given the Baltics' favorable EU accession prospects. If growth continues at something close to current trends, this would be consistent with broadly stable external debt ratios in Estonia and Latvia, and a moderate decline in the external debt ratio in Lithuania. External sustainability could, however, become a concern in the event of a significant reduction in FDI inflows, especially if this were also associated with a reduction in economic growth. In such circumstances, concerns about

¹³ Latvia has used this "freedom" to foster the development of domestic capital markets. The government has issued medium-to long-term debt in excess of its financing needs, to provide a benchmark for the emergence of private sector debt instruments in the national currency.

external sustainability, which would argue for a tighter fiscal stance, must be balanced against domestic cyclical considerations.

29. **The link between fiscal policy and external sustainability is, however, complicated and depends crucially on the response of private savings and investment to changes in fiscal policy.** This relationship—and in particular, the extent to which changes in fiscal policy are offset by changes in private savings and investment—has been the focus of extensive theoretical and empirical research (Box 6). This research concludes that the offset tends to be only partial in developing and transition economies, suggesting that fiscal policy may have some influence on movements in the current account. However, the magnitude of the response of private savings and investment to changes in fiscal policy is difficult to quantify with any certainty, and will depend, among other things, on the accompanying shifts in the level and structure of revenues and expenditures. This makes it difficult to use fiscal policy to hit precisely a particular external target.

30. **Moreover, even if the magnitude of the “Ricardian offsets” is known, factors other than fiscal policy appear to have been more important determinants of recent current account developments.** Relative business cycles and asset market developments, for example, appear to be among the primary drivers of current account positions in advanced countries.¹⁴ While fiscal policy has a role to play in the Baltics in determining the size of current account deficits and ensuring external sustainability, cyclical factors may be a more important determinant of private savings.¹⁵

31. **The lack of immediate concerns about public and external debt sustainability suggests that the Baltic countries have some flexibility that could—if there were no other constraints on fiscal policy—be used to reconcile medium-term expenditure pressures with the desire for lower taxes, without the need for offsetting reductions in other expenditure.** The analysis in Appendix I suggests that a roughly balanced primary fiscal position would be sufficient to stabilize public debt ratios, in each of the Baltic countries, at their current low levels. As an extreme example, policymakers could, in principle, target moderate to large primary deficits—perhaps in the order of 1¼ percent of GDP in Lithuania, and around 3 percent of GDP in Estonia and Latvia—for several years before public debt reached the SGP reference value of 60 percent of GDP.¹⁶ The analysis also suggests that, provided growth and FDI inflows continue at roughly their current rates, and current account deficits stabilize at less than 6-7 percent of

¹⁴ See IMF (2001a), page 99.

¹⁵ See IMF (2000a).

¹⁶ The analysis in Appendix 1 suggests that the debt ceiling would not be reached for two decades, assuming that there is no increase in the real interest on public debt during that time. The latter is unlikely given that in Latvia and Estonia, for example, the overall fiscal deficit would have reached 5¾ percent by the end of this period.

Box 6. Private Saving and Investment

Fiscal policy affects private saving and investment decisions, which has important repercussions for a country's external position. From a theoretical perspective, private saving can be affected by variations in public saving, known as the Ricardian equivalence theorem.¹ In open economies, Ricardian equivalence implies that a decrease in public saving would not affect the external current account balance, as it would be matched by an equivalent increase in private saving. Nonetheless, the existence of such full Ricardian equivalence is challenged by theoretical models with overlapping generations, incorporating a life-cycle consumption aspect and implying that lower public saving will only be partially offset by higher private saving.² In an open economy, less-than-full Ricardian equivalence implies that a given increase in the fiscal deficit would entail a temporary (and smaller) increase in the external current account deficit and higher interest rates.

Whether the concept of Ricardian equivalence is relevant from a practical policy perspective is an empirical question. While in developed countries close-to-full Ricardian equivalence has been observed,³ such effects tend to be partial in developing and transition countries.⁴ A recent study concluded that Ricardian effects were also only partial in the Baltic countries and that fiscal stimuli would therefore tend to trigger offsetting improvements in the private saving-investment balance only to a limited extent.⁵ By implication, fiscal policy could have a role to play in determining the size of the current account deficit and ensuring external sustainability.

These arguments have been further refined by recent empirical research which found that the impact of changes in fiscal policy on private saving and investment also depends on whether they are the result of changes in revenue or expenditure. The following broad conclusions emerge:⁶ (i) fiscal consolidation driven by cuts in current spending should result in only a small (if any) reduction in private saving; (ii) the results on the private sector response to changes in public investment are less clear-cut; (iii) increases in revenue, by contrast, tend to lower private saving significantly; and (iv) the literature on the response of private investment is less developed but suggests that cuts in spending tend to raise private investment, while revenue-driven consolidation has the opposite effect (but likely of significantly smaller magnitude).⁷ On balance, therefore, the improvement in the current account as a result of fiscal consolidation is likely to be partly offset by a fall in private savings and an increase in private investment, although the magnitude of this offset is highly uncertain.

¹ In an infinite horizon framework, Ricardian equivalence stipulates that a decrease in government saving will be offset by an equivalent increase in private saving. This offset occurs as economic agents save more now in order to be able to pay higher taxes in the future, which will be needed to service government debt. See, for example, Barro (1974,1989).

² Modigliani and Brumberg (1954) and Diamond (1965). Also see Blanchard and Fischer (1993), Chapter 3.

³ Ul Haque et al. (1999) estimated that changes in private saving offset changes in public saving by up to 90 percent.

⁴ Weaker effects in less advanced economies (with a 40 to 50 percent private saving offset) typically reflect less developed financial markets and low incomes which inhibit consumption smoothing. See Masson et al. (1995).

⁵ IMF (2000a).

⁶ See Masson et al. (1995) and Ul Haque et al. (1999), Callen and Thimann (1997), and IMF (2000b).

⁷ Alesina et al. (1999). A permanent cut in expenditure by 1 percent of GDP raises private investment by 0.8 percent of GDP after five years, and by more if expenditure restraint is focused on public wages. A revenue increase by the same amount lowers private investment by 0.2 percentage points, with a large reduction if taxes on labor income are increased.

GDP, external debt ratios will stabilize or fall further. This contrasts somewhat with the position in other accession candidates in central Europe where similar illustrative calculations¹⁷ indicate that in most countries some fiscal adjustment, in the range of 2-4 percentage points of GDP, may be required to avoid a deterioration in external indebtedness.

32. **However, there are other constraints on fiscal policy in the Baltics which provide stronger arguments for remaining *well* within the limits of what constitutes a sustainable fiscal policy.** These are partly institutional or political economy arguments (discussed in the next section) and partly economic:

¹⁷ See IMF (2001b).

- First, doing so would reduce the likelihood of crowding out more productive private sector investment, and help to maintain the low level of interest rates, which have already done much to stimulate private sector-led economic growth in the Baltics.
- Second, private saving is projected to level off over the medium-term. This, together with an expected increase in public investment, suggests that strong government savings will be necessary to avoid an increase in external imbalances.
- Third, it would continue to provide fiscal policy-makers with the flexibility to borrow, at reasonable interest rates, in response to domestic and external shocks.¹⁸ Such flexibility is particularly important in the Baltics given their exchange rate regimes and can, in itself, help to minimize the risk of a sudden reversal in capital flows, reduce risk premia, and thereby reduce interest rates.
- Fourth, moving toward a balanced budget will make the Baltics less vulnerable to possible contagion from other emerging markets crises, especially if financing needs are short-term or require a debt rollover.
- Fifth, the flexibility of fiscal policy needs to be preserved in view of its role as the main macroeconomic policy instrument at the disposal of the national authorities in the Baltics' exchange rate set-up.¹⁹
- Sixth, and related, the Baltics will soon be required to operate within the constraints set by the Maastricht Treaty and SGP. During the cyclical downturns of the 1990s, many EU countries reduced fiscal deficits in order to meet the Maastricht or SGP criteria. Hence automatic stabilizers were not, or not fully, operating during these periods. In the Baltics, therefore, a continuation of prudent fiscal policies at this stage would avoid the possible need for similar future procyclical fiscal adjustments to meet these constraints.²⁰

¹⁸ Conversely, an imprudent fiscal policy stance could significantly raise interest costs and potentially lead to a liquidity problem for the budget if financing were to dry up.

¹⁹ The key role for fiscal policy in the Baltics in this regard is as a tool to stabilize aggregate demand. In addition, fiscal policy must support the Baltics' fixed exchange rate mechanisms, and in this sense also has an indirect role to play in maintaining stable and low inflation (see also Weber and Taube (1999)).

²⁰ Whether the 3 percent deficit ceiling under the Maastricht treaty is sufficient to allow the full operation of the automatic stabilizers in the Baltics depends on the choice of the medium-term fiscal target, as well as the size of both the cycle and the stabilizers themselves. If GDP falls below its potential by 1 percentage point, fiscal deficits are estimated to increase by about ½ percentage point on average in EU countries (see European Commission (2000c)). However, cyclical volatility could be expected to be larger than the EU average in the Baltics, given their characteristics as small open economies. Overall, it seems likely that aiming for a broadly balanced budget over the medium term or economic cycle would enable the Baltics to

(continued...)

- And finally, it would help to ensure fiscal sustainability in the *very* long term, when public debt considerations are likely to become a more binding constraint for several reasons. Growth rates are likely to fall as the process of real convergence with advanced economies nears completion. Privatization receipts, which have, in part, enabled fiscal deficits to be financed without adding to the stock of public debt, will decline in the near future, and demographic pressures related to ageing populations are likely to increase the pressure on the public finances over the longer term.²¹

C. Fiscal Policy Rules

33. **Fiscal policy in the Baltics could be further supported by a rules-based framework, provided it is implemented with sufficient flexibility and transparency (Box 7).** The adoption of a simple and transparent fiscal rule to which governments can commit, can reduce the politically-driven bias towards larger fiscal deficits. A commitment to a specific *ex-ante* target for the budget balance, for example, may limit the deterioration in the balance that emerges *ex-post* following policy slippage or unexpected shocks. Such rules could, for the same reason, provide the discipline necessary to check pressures for an increase in public spending that would further crowd out the private sector. This is especially relevant in the Baltics, where such pressures will emerge from the EU and NATO accession process. The upshot is likely to be a virtuous cycle of enhanced government credibility, a reduction in interest rates for both the public and the private sector, and improved economic performance.

34. **The adoption of suitable fiscal rules can also support the credibility of the hard pegs in the Baltics.** One such rule, already in place, precludes the governments in all three countries from taking recourse to central bank financing. Additional fiscal rules could be considered but, given the Baltics' exchange rate regimes, they would have to be weighed against the role fiscal policy plays as the only significant policy lever available to deal with short-term macroeconomic fluctuations. Fiscal policy rules, therefore, need to be defined in terms which allow sufficient flexibility to deal with such fluctuations, as stated above.

35. **Against this background, the questions then arise as to the most appropriate fiscal policy rule for the Baltic countries and how such a rule should be applied.** A balanced budget rule is perhaps the most simple rule and has the advantage of being clear and focusing on a well-understood macroeconomic aggregate which is relatively easy to define and monitor.²² However, such a rule, if applied rigidly from year-to-year, would over-ride the operation of automatic fiscal

accommodate a substantial cyclical deterioration in the fiscal position while remaining within the 3 percent ceiling.

²¹ Chalk and Hemming (2000) show that existence of large unfunded pension liabilities can completely transform debt sustainability calculations.

²² The adopted target should be based on a comprehensive measure of the general government's fiscal position. There could, however, be practical problems in adopting such a target, given the often limited control over local government budgets, and the existence of extrabudgetary funds.

stabilizers. Maintaining a balanced budget in a recession would necessitate tax increases or spending cuts to offset the operation of the automatic stabilizers, resulting in a pro-cyclical stance which would undermine macroeconomic stability.

Box 7. Institutional Fiscal Reforms: Rules and Transparency

Recent fiscal consolidation in a number of countries has been secured alongside parallel institutional reforms of fiscal frameworks, and in particular the adoption of fiscal rules and enhanced fiscal transparency.¹ Fiscal rules can take various forms, such as formal deficit and debt rules, or limits on expenditure. The arguments about fiscal rules are, to a large extent, an extension of traditional arguments about the role of rules vs. discretion in economic policy formulation. In theory, rigid adherence to fiscal rules might impair the short-run stabilization and tax-smoothing role of fiscal policy. A judicious mix of discretionary fiscal and monetary policy, guided by targets for macroeconomic performance (such as inflation and the current account) can be viewed as conceptually superior to fiscal rules.² However, the superiority of discretionary fiscal policy has not always been corroborated in practice. Fiscal rules, by limiting the influence of contingent events on fiscal outcomes, can strengthen fiscal discipline and counter the politically induced deficit bias of many governments.³

Fiscal frameworks in some countries have been further enhanced by placing an explicit emphasis on transparency to increase accountability for the design and implementation of fiscal policy. Fiscal transparency also helps to relax the trade-off between the need for discretion and rules in fiscal policy. A commitment to transparency also raises the chance that a government can retain credibility if it needs to temporarily deviate from its fiscal rules or targets. Transparency can further enhance the credibility of fiscal rules by removing any tendency to be non-transparent in order to meet a rule, and by facilitating judgments of performance against a given rule.

Participants in the EMU have adopted deficit and debt rules under the Maastricht Treaty and the subsequent SGP, but the Baltics would not become subject to these rules until after EU accession. The Baltics could unilaterally declare their adherence to these rules, adopt other fiscal rules in line with practice in other countries, or announce a credible commitment to pursue their own fiscal adjustment path. Within the EU and EMU, some countries have adopted additional rules. The UK, for example, has adopted a "golden rule" for borrowing together with a limit on public debt, with the latter necessary to ensure fiscal sustainability. Sweden, Finland, and the Netherlands have adopted expenditure limits.

¹ See IMF (2001a) which also cautions that such reforms are relatively recent and have yet to be tested in a recession.

² See, for example, Kopits and Symansky (1998).

³ The benefits of fiscal rules over discretion stem flow from the credibility of a lasting commitment to fiscal discipline (i.e., from the time consistency of rules in the eyes of rational decision makers). See Cukierman and Meltzer (1986) and Kopits and Symansky (1998), building on the work of Kydland and Prescott (1977).

36. Those countries which follow balanced budget rules (or other deficit targets) have therefore tended to apply the rule on average over the medium-term or economic cycle.

While such a refinement is clearly preferable from an economic perspective, it may also undermine credibility to the extent that the benchmark against which fiscal performance is judged is less immediately visible. The concept of cyclical adjustment is also particularly difficult to apply in transition economies where estimates of potential output and revenue and expenditure elasticities are subject to substantial margins of error. The adoption of a prudent but realistic trend (or potential) growth rate assumption could, however, allow the Baltics to converge towards a reasonable approximation of structural budget balance.

37. Convergence towards cyclically-adjusted or structural budget balance, and the eventual adoption of a structural budget balance rule, would also need to be implemented

with a reasonable degree of flexibility in the Baltics given their particular circumstances.²³ The automatic fiscal stabilizers, for example, should normally be allowed to operate fully. The Baltics may need to accommodate asymmetric shocks by resorting to discretionary action in addition to relying on automatic stabilizers, given the absence of the exchange rate as an adjustment instrument. Moreover, in the near to medium-term at least, additional room may be necessary for outlays in connection with the remaining transition-related structural reform tasks.

38. **Expenditure limits represent a possible alternative to a cyclically-adjusted balanced budget rule.** Such limits typically apply to discretionary spending and also tackle the potential deficit bias resulting from political pressures to increase spending. They allow automatic stabilizers to work and thus operate like a cyclically-adjusted deficit rule. But such limits do not necessarily preclude large tax cuts or the systematic over-prediction of revenues which can lead to excessive fiscal deficits. It may still be necessary, therefore, to supplement a binding expenditure rule with a medium-term “target” for the budget balance, again based on an appropriately prudent trend growth rate assumption. Such a target represents a weaker form of commitment than a binding rule, but may nonetheless ensure enough discipline.²⁴

39. **Whatever the precise choice of fiscal rule, the experience of other countries suggests that an explicit emphasis on transparency is an essential requirement for rules to be effective.** Transparency helps to build policy credibility which can, in turn, enable policymakers to operate more flexibly within a given fiscal framework. In a similar way, inflation targeting can best be understood as a monetary policy framework rather than a rigid rule. And the high degree of transparency associated with inflation targeting is a critical element in building the credibility necessary to allow monetary policy to be implemented flexibly.²⁵

40. **In summary, the fiscal positions in all three Baltic countries are in essence already relatively sound.** Public debt is low by international standards, while net external debt is only moderate. These two factors combined suggest scope for flexibility in setting fiscal policy without running up against concerns about debt or external sustainability—provided that FDI inflows continue to largely finance the persistent current account deficits. However, there are stronger arguments in favor of adopting a more constrained approach, as discussed above. The experience of other countries suggests that fiscal rules can be useful in this regard, provided that they are

²³ Such flexibility should, however, also be consistent with other objectives such as external and public debt sustainability. In this regard, it is worth noting that year-to-year departures from the cyclically-adjusted fiscal target resulting from the operation of automatic stabilizers would be fully consistent with public and external debt sustainability, provided that: (i) the medium-term target is itself consistent with public and external debt sustainability; and (ii) the government’s commitment to the fiscal policy rule fully is credible.

²⁴ Sweden follows such an approach. An alternative would be to adopt an explicit target for the stock of debt relative to GDP.

²⁵ See, for example, Bernanke and Mihov (1997).

appropriately defined. In the Baltics, the adoption of a medium-term or cyclically balanced budget rule, or alternatively some form of expenditure limit supplemented by a medium-term balanced budget “target”, could further enhance the credibility of the authorities’ macroeconomic policy frameworks, provided it was implemented flexibly and supported by sufficient transparency, and be consistent with their prospective obligations in terms of policy coordination after EU accession.

IV. THE EXPERIENCE OF EARLIER EU ACCESSION COUNTRIES PRIOR TO AND AFTER THEIR ACCESSION

41. **In their drive to join the EU, the Baltics face fiscal challenges similar to those of the countries that joined in the last three decades and had incomes below the EU average.** Such countries were Greece, Ireland, Portugal, and Spain, henceforth referred to as EACs for earlier accession countries. The harmonization of indirect taxation, the Common Agricultural Policy, the implementation of EU-related transportation projects and environmental standards, and, more recently, the adherence to the Maastricht criteria and the SGP provisions, have all required a substantial reorientation in the EACs’ fiscal policies. The way in which these countries managed these challenges, often requiring a considerable change in the size and composition of revenues and expenditures, can provide a lesson for the Baltics and other EU accession candidates. Similarities and differences between the EACs and the Baltics are highlighted in Box 8.

Box 8. The Baltics—Similarities and Differences with EACs at Their Point of Accession

The Baltics share a number of economic similarities with EACs *at the point of accession*, but also exhibit some striking differences (Table 2). The Baltic region represents only a small proportion of the EACs’ geographical size and population. The Baltics’ per capita GDP in 2000 was just over one third that of the EACs’ average upon accession, if measured at 2000 prices. This remains true, albeit to a lesser extent, even when GDP is measured on a PPP basis. In turn, this is reflected in a larger income gap with the EU, with the Baltics accounting for less than 30 percent of the average income in the Union, compared to 70 percent for EACs (Figure 4). This suggests, among other things, that the Baltics will require either larger per capita capital inflows (which appear to be forthcoming) or a longer time horizon to complete their convergence process. The better inflation performance of the Baltics relative to the EACs mostly reflects the effective discipline of their hard pegs.

The Baltics show a more advanced structure of the economy than the EACs. Agriculture accounted for only 5 percent of output in 2000, compared to 9 percent in EACs, partly reflecting the rapid restructuring of the sector after independence. At the same time, industrial output was somewhat lower than in the EACs, as the Baltics seem to have bypassed the years of heavy industrialization typical of western economies in the 1970s. The share of services in output was 11 percentage points higher in the Baltics, as tourism, banking, and other services play a substantial role in output.

The Baltics have pursued a more prudent fiscal policy than the EACs. Their fiscal deficits in 2000 amounted to 2 percent of GDP on average, compared to an average 6.2 percent of GDP in the EACs. The Baltics’ revenue-to-GDP ratio exceeds the EACs’ ratio, reflecting the low revenue efforts in those countries that joined the EU first, namely Ireland and Greece. The size of the public sector varied within each group, but the average size was somewhat higher in the Baltic region at 38 percent of GDP. The Baltic countries also enjoyed a substantially lower public debt burden than the EACs.

The external sector dominates economic activity in the Baltics. Trade and service flows averaged 130 percent of GDP in 2000, more than double the EACs’ flows. This difference can be partly explained by the liberal trade regime and the small size of the Baltic countries. The Baltics’ somewhat larger current account deficits mainly reflect large FDI-related imports.

Table 2. EACs and the Baltic Countries: Key Macroeconomic Indicators

	Earlier EU Accession Countries (at time of accession)					Baltic Countries			
	Greece (1981)	Ireland (1973)	Portugal (1986)	Spain (1986)	Average	Estonia (2000)	Latvia (2000)	Lithuania (2000)	Average
Population (in millions)	9.5	3.0	10.0	38.4	15.2	1.5	2.6	3.8	2.6
GDP (millions of U.S. dollars) 1/	84,318	27,925	52,903	375,317	135,116	4,973	7,118	11,202	7,764
Per capita GDP (in U.S. dollars) 1/	8,923	9,377	5,280	9,783	8,341	3,215	2,752	2,980	2,982
On PPP basis (in U.S. dollars) 1/ 2/	11,254	10,282	10,543	13,099	11,294	5,957	4,578	5,319	5,285
In percent of EU average (ratio)	75.5	71.6	59.0	73.3	69.9	30.5	23.5	27.3	27.1
Average CPI (change in percent)	7.6	11.4	11.6	8.9	9.9	4.0	1.8	1.0	2.3
Economic sectors (in percent of GDP)									
Agriculture	14.0	9.1	8.9	5.6	9.4	5.7	4.0	6.9	5.5
Industry	31.6	25.7	39.5	35.7	33.1	25.1	22.3	29.4	25.6
Services 3/	54.4	65.2	51.6	58.7	57.5	69.2	73.7	63.7	68.9
General government (in percent of GDP)									
Revenue	26.7	23.4	35.8	34.6	30.1	39.0	37.4	30.5	35.6
Expenditure and net lending	35.0	27.7	42.3	40.3	36.3	39.4	40.7	33.3	37.8
Fiscal balance	-8.4	-4.4	-6.4	-5.7	-6.2	-0.4	-3.3	-2.8	-2.2
Total public debt	29.6	n.a.	68.4	44.2	47.4	6.2	15.0	28.8	16.7
External sector (in percent of GDP)									
Exports of GNFS	24.5	34.6	28.8	19.0	26.7	95.4	46.0	47.1	62.8
Imports of GNFS	40.5	40.7	31.1	17.1	32.3	100.4	54.5	52.0	68.9
Current account balance	-5.4	-2.8	3.5	1.5	-0.8	-6.4	-7.2	-5.4	-6.3
FDI inflows and net equity 4/	1.4	1.0	1.9	2.0	1.6	7.3	5.0	4.4	5.6

Source: authorities, and Fund staff estimates.

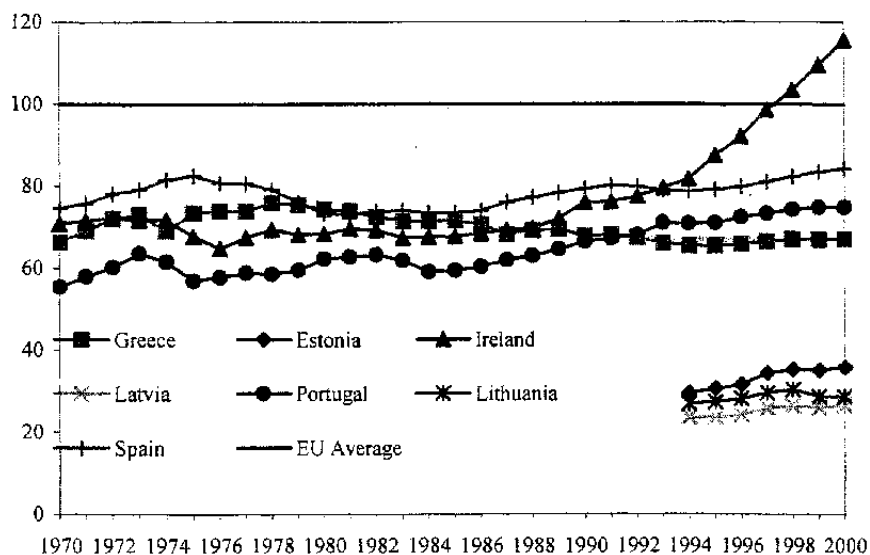
1/ Valued at 2000 prices for the earlier EU accession countries.

2/ Estimated based on nominal and PPP-based GDP at actual prices for the earlier EU accession countries.

3/ Includes financial intermediation and net taxes.

4/ For Greece, only FDI inflows are available for 1981.

Figure 4. EACs and the Baltic Countries: Real Convergence, 1970-2000
(Ratio of per capita income to EU average, on PPP basis)



Source: IMF World Economic Outlook.

42. It is generally expected that the main economic benefit of EU integration will be an accelerated convergence to the EU's average income level, as increased FDI sustains a higher real growth rate and reduces the income differential. Real convergence has already taken place in EACs, albeit with somewhat differing results. While Ireland has achieved full convergence to the EU's average income level in the last ten years, Greece and, to a lesser extent, Portugal and Spain, have lagged behind. The evidence presented in this chapter suggests that macroeconomic stability and fiscal discipline may have played a significant role in determining the speed of convergence in EACs.

A. The Fiscal Challenges of EU Integration

43. EU accession generally requires significant changes in the composition of revenue and expenditure. These changes played themselves out over many years in the EACs. The harmonization of indirect taxes was established in their respective accession agreements, but only became fully effective prior to the creation of the European Single Market. The EACs were also in a position to influence the contents of various EU directives and initiatives, by requesting transitional periods and additional financing for implementation as these directives were adopted. This gave EACs' governments more time to adjust the spending composition.

The rising tax burden in the EACs

44. The tax burden in the EACs has risen substantially over the last decade.²⁶ The tax-to-GDP ratio rose from an average of 21 percent of GDP in 1975 to 36 percent of GDP in 2000. This

²⁶ Defined as direct and indirect taxes, and social security contributions, as in OECD (2000).

increase has largely reduced the differential with the original founders of the EU (EU-6), especially after 1980 (Figure 5).

45. **This decline in the tax differential could be partially attributed to the European integration process.** This might have eroded the geographical advantage (i.e., “agglomeration economies”) of the EU-6.²⁷ Baldwin and Krugman (2000) demonstrate in a model with geographical externalities that higher investment inflows would result in an increase in the optimal tax rate of the recipient country. They conclude that the convergence process in tax ratios is the result of increased capital mobility within the EU, especially after the establishment of the EMU, which has led to higher FDI in the EACs and the harmonization of tax policies.

46. **While economic integration played a role, institutional factors also contributed to the convergence of the tax burden.** The harmonization of indirect taxes was part of the EACs’ accession agreements and was gradually introduced before the establishment of the European Single Market. Moreover, the increased spending pressures related to the EU, as well as discretionary domestic spending decisions, forced the EACs to raise additional domestic resources, mainly in Greece and Portugal (Table 3). This was done through an increase in taxation, ultimately leading to little divergence from the tax burden in the EU-6.

Table 3. EACs Tax Revenues and Social Security Contributions
(In percent of GDP)

	Ireland (1973)	Greece (1981)	Portugal (1986)	Spain (1986)	Average
Accession Year					
Total taxes	29.1	24.3	26.4	30.2	27.5
Direct taxes	11.5	4.3	8.3	7.3	7.8
Indirect taxes	13.5	10.4	11.3	10.6	11.5
Social security contribution	4.0	9.6	6.8	12.3	8.2
2000					
Total taxes	30.6	39.9	38.1	35.3	36.0
Direct taxes	13.7	10.8	10.7	10.3	11.4
Indirect taxes	13.3	15.3	15.3	11.7	13.9
Social security contribution	3.7	13.7	12.1	13.3	10.7

Source: OECD Analytical Database.

47. **Both the EACs’ integration experience and the institutional factors associated with EU accession suggest that reducing the tax burden over the next decade in the Baltics may present a major challenge.** The scope for tax reductions would be limited by EU directives to changes in direct taxes that do not infringe on the “EU Code of Conduct on Business Taxation”. But such efforts would be constrained by the Baltics’ balanced budget objective, as well as by the requirements to meet the criteria under the Maastricht treaty and the SGP.

²⁷ See Baldwin and Krugman (2000).

Figure 5. EACs and the EU-6: Tax Revenues, 1970-2000
(In percent of GDP)

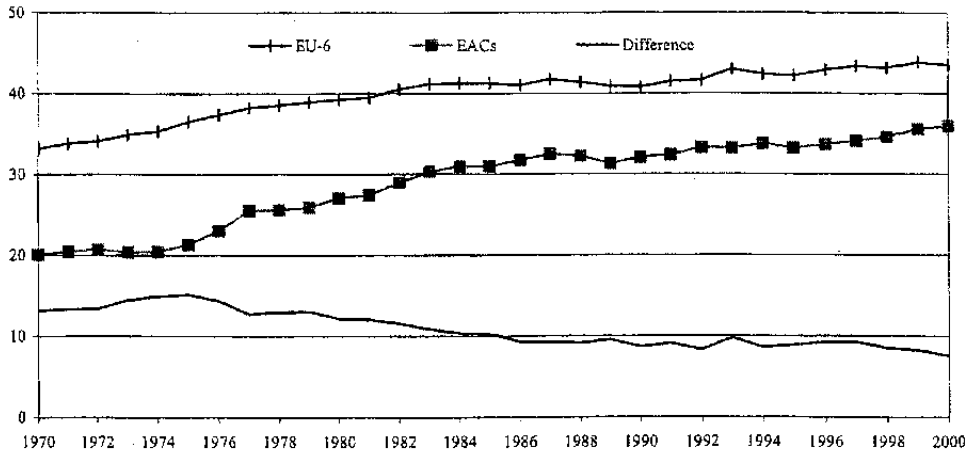


Figure 6. EACs and the EU-6: The Size of Government, 1970-2000
(In percent of GDP)

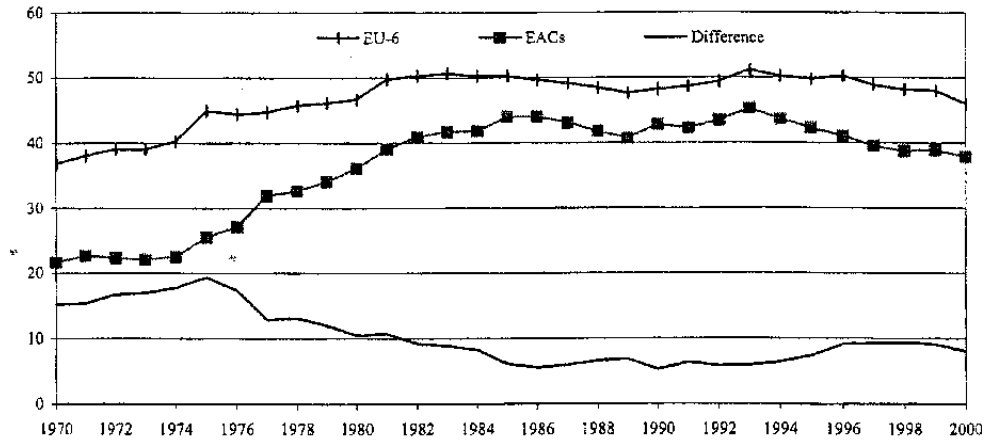
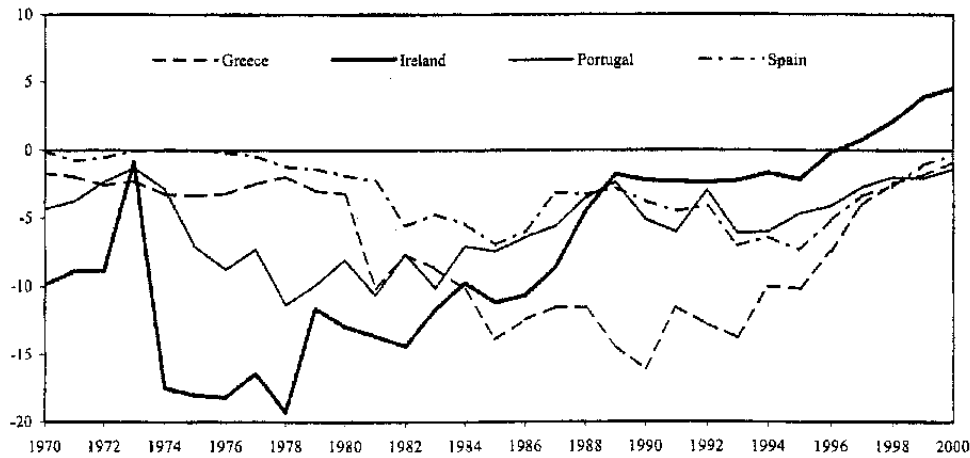


Figure 7. EACs: Fiscal Balance, 1970-2000
(General government balance; in percent of GDP)



Source: OECD Analytical Database; International Financial Statistics; and Fund staff estimates.

Indirect tax harmonization

48. **The harmonization of indirect taxation required a substantial restructuring of the tax systems in the EACs.**²⁸ The introduction of the VAT represented a particularly difficult challenge, as all EACs applied a cascading sales tax prior to accession.²⁹ It required a large investment in the institutional capacity of the EACs' tax administration. Harmonization of the VAT tax bands and the tax base was only fully implemented at the start of the European Single Market in 1993.

49. **The harmonization of customs tariffs with the EU Common External Tariff (CET) required a lengthy transitional period to avoid major disruptions in domestic production.** Tariffs prior to accession were noticeably higher than EU levels, except for Ireland. Most noteworthy, excise taxation was harmonized only at the inception of the European Single Market.

50. **The Baltics face less of a challenge in the harmonization of indirect taxation, as stated above.** Unlike the EACs, they all apply VAT and excise taxation that are already broadly in line with EU directives, although raising some excise rates may be politically difficult to implement. Adjustments may be required in the tax base but the institutional capacity to administer tax refunds is already in place. Trade barriers with the EU were eliminated in the context of the 1998 *Europe Agreement* between the EU and the Baltic countries.

51. **The main challenge will be the adoption of the CET.** The Baltics have lower tariff protection than the EU³⁰ and signed several free trade agreements with non-EU and non-EFTA countries. The adoption of the CET will imply an increase in trade protection in the Baltics where trade and service flows account on average for 130 percent of GDP. While the share of trade with the EU is close to 70 percent in Estonia and Latvia and 50 percent in Lithuania, an increase in trade protection to other countries may still have a sizable effect on prices of production inputs and consumer goods with clear welfare losses and could impinge on the Baltics' geographical advantage as a link between Russia and the EU.

²⁸ For further information, see Georgakopoulos (1994) on Greece; O'Donnell (1991a) on Ireland; Ordaz (1993) on Portugal; and Utrilla de la Hoz (1993) on Spain.

²⁹ Ireland introduced the VAT just before accession in 1972.

³⁰ The Baltics are rated 1 (the lowest) in the IMF staff's index of overall trade restrictiveness. The index ranks countries from 1 to 10 on the basis of two dimensions, tariff and non-tariff protection (see IMF (1998)). In comparison, the EU scores a 4 on the same index. More specifically, the simple average MFN tariff rate in 2000 was 3.1 percent in Estonia, 4.6 percent in Latvia, and 5.3 percent in Lithuania. The equivalent rate for the EU was 4.8 percent, but this excludes specific and mixed duties which are a significant part of the CET.

The size of government in the EACs

52. **The size of government in the EACs has risen dramatically during the last three decades, bringing it close to the government size in the EU-6 (Figure 6).** The EACs' share of spending to GDP rose from an average 22 percent in 1970 to a peak of 45 percent in 1993. Since then, it has fallen somewhat to 38 percent, reflecting the EU-wide fiscal consolidation since the mid-1990s, which was partly motivated by the need to meet the Maastricht criteria in 1997 to join the euro area and adhere to the SGP thereafter. The differential with the EU-6 fell until the mid-1980s and has since remained at about 10 percentage points of GDP.

53. **This convergence in the size of the government in the EU partially reflected EU-related spending, but also other factors were at play.** In Greece, for example, spending financed by EU grants rose from 1 percent of GDP in 1981 to 5½ percent of GDP in 1992,³¹ before declining to above 4 percent of GDP by 1999.³² Large transfers from the EU budget also led to a larger government sector in the other EACs. However, other factors contributed to the expansion of the public sector as well, such as a discretionary easing of fiscal policy, political business cycles, and an overregulated economy, especially in Greece.

54. **The size of government in the Baltics is likely to be less affected by EU transfers.** The EU agreed in 1999 that annual transfers to new members would be capped at 4 percent of the recipient's GDP.³³ The cap was intended to ensure that the implications of enlargement on the EU budget would be contained. While a portion of EU transfers are likely to finance existing domestic spending (see Chapter V), the increase in the size of the public sector in the Baltics is likely to be contained in view of the authorities' twin objectives of moving toward a balanced budget while lowering the tax burden.

Common Agricultural Policy (CAP)

55. **The CAP accounts for the largest share of EU transfers to EACs.** In the case of Ireland, explicit budgetary transfers under the CAP amounted to about 3½ percent of GNP annually between 1979 and 1986, accounting for more than half of total transfers.³⁴ The other EACs received somewhat less as a share of GNP; however, the CAP for all countries still represents the largest net transfer from the EU. The reform of the CAP in 1988—stipulating that agricultural expenditure was to grow each year by less than 75 percent of the annual real GNP

³¹ Georgakopoulos (1994).

³² European Court of Auditors (2000).

³³ Official Journal of the European Communities, C172/1, June 18, 1999. Quoted in Mayhew (2001).

³⁴ If the implicit subsidy stemming from higher export prices is considered, net CAP transfers are estimated to have averaged 7 percent of GNP annually over 1979-86. See Conway (1991).

growth rate of the EU—limited the share of agricultural subsidies to EACs. However, subsidies under the CAP still accounted for 47 percent of the EU budget in 1999.³⁵

56. The introduction of the CAP in the EACs led to a real increase in both explicit and implicit subsidies to the agricultural sector and the eventual elimination of intra-EU trade barriers. The main implicit subsidy resulted from effective trade barriers against non-EU producers under the CET. Both explicit and implicit subsidies were, however, limited by the introduction of production quotas in 1984. To compensate for this, the EU increasingly shifted subsidies to support agricultural exports to non-EU countries. The elimination of intra-EU trade barriers led to a convergence of agricultural prices across the EU and increased specialization. It is not clear whether the CAP resulted in productivity gains, especially in small farms, as most of the agricultural investment guaranteed by EU funds was concentrated in large entities.³⁶

57. The size of the agricultural sector in the Baltics has been steadily declining since independence. It averaged about 5 percent of GDP in 2000,³⁷ only half the size than in the EACs before their accession. The impact of the CAP on the Baltics is thus likely to be smaller relative to the EACs' historical experience. Barring a CAP reform before accession, explicit and implicit subsidies to agriculture in the Baltics will increase after accession along with domestic prices for agricultural products. The extent of the subsidies will depend on the allocation of production quotas to each country. The introduction of the CET and export subsidies is likely to have a major impact on agricultural trade with non-EU members.³⁸

Transportation and environmental projects

58. About one-third of all EU transfers comprise regional aid to poorer regions under the auspices of the structural and cohesion funds.³⁹ The goal of both funds is to reduce the income gap between different regions of member countries and “thereby promote economic and social cohesion.”⁴⁰ The allocation for 2000-06 has increased somewhat in nominal terms, partly to take account of allocations for future member countries.

59. The literature is inconclusive on the effectiveness of the EU's regional policy. Most studies find empirical support for a direct correlation between EU aid and convergence of per

³⁵ European Commission (2000a).

³⁶ See Keane and Lucey (1997) and Rosenblatt et al. (1988).

³⁷ The agricultural sector in Lithuania is somewhat higher, accounting for 7 percent of GDP.

³⁸ See Buckwell and Tangermann (1997).

³⁹ The structural funds were introduced in stages since the Treaty of Rome to ameliorate social, agricultural, fisheries and regional conditions. The cohesion fund was created with the European Single Market to reduce the income gap between the EACs and the rest of the EU. Countries with a per capita GNP below 90 percent of the EU average are eligible to draw from this fund.

⁴⁰ <http://www.europa.eu.int/scadplus/leg/en/cig/g4000s.htm> - s14.

capita income of poorer regions to EU averages.⁴¹ However, Boldrin and Canova (2001) found little evidence of convergence in those regions that benefit from structural and cohesion grants.

60. **The EU's regional policy has traditionally focused on large infrastructure projects with the aim to stimulate private investment in poorer regions and generate employment.** In this context, large transportation projects have featured prominently, particularly highway constructions to develop a European network of freight transport under the Common Transport Policy (CTP). These large investments have usually required a substantial portion of domestic finances. More recently, the CTP has strived to take the absorption capacity of the recipient country more into account in the approval of new infrastructure projects.

61. **Environmental projects have gained in importance lately.** This reflects the adoption of stringent environmental standards that became part of EU legislation in 1986, although their enforcement has been rather flexible. As put in the case of Ireland, "on many subjects [the EU's] environmental policy consists more of aspirations than a common policy."⁴² This was also recognized by the European Commission in the environmental chapter of the Annual Report on Monitoring the Application of Community Law.⁴³ In 1998, for example, the Commission referred 15 cases against member states to the Court of Justice and dispatched 118 reasoned opinions.

62. **The Baltics will face substantial pressures in the coming years to catch up with the regional projects and environmental standards of the EU.** Even if a large share of these projects were to be financed by the EU, the experience especially of Greece shows that there is a limit to the absorptive capacity of recipient countries. To what extent the catching up will need to be done before accession is currently a matter of negotiations. However, the EACs' experience suggest that the European Commission has, in the past, shown considerable flexibility in the implementation timetable. Against this background, the optimal rate of implementation must be one that does not endanger macroeconomic stability.

B. Real Convergence in the EACs

63. **The experience of the EACs suggests that real convergence is not an automatic process, as standard neoclassical growth theory appears to suggest (see Box 9 and Figure 4).** The extent and speed of convergence has in fact varied among the four EACs during the last 30 years. In the case of Greece, despite EU regional aid, the ratio of per capita GDP (measured on a purchasing power parity basis) to that of the EU average has remained roughly unchanged. Spain and Portugal have gradually closed their income gap since joining the EU by about 10 and 20 percentage points, respectively, but still remain below the EU average.

64. **The Irish convergence experience in the second half of the 1990s is strikingly different.** While the Irish income gap had narrowed by 11 percentage points in the 24 years

⁴¹ See, for example, Martín (2000), Chapter 11; and European Commission (2000b).

⁴² O'Donnell. (1991b).

⁴³ European Commission (1999), quoted in Mayhew (2000).

Box 9. Macroeconomic Convergence Literature

Policymakers from accession countries widely believe that the main benefit of EU accession will be a faster convergence of living standards to EU averages (see, for example, Bank of Estonia (2000)). This belief may be partly based on the prediction of neoclassical growth models that, with the elimination of barriers to goods and factor movements, capital will flow to countries with a lower capital stock to take advantage of higher returns. In turn, this inflow of foreign investment will sustain a higher growth rate in the new member states and thus reduce the income gap with the EU average (based on Solow (1956)). This convergence process comprises both an alignment of the nominal price level (nominal convergence) and per capita real GDP (real convergence).

The automaticity of convergence predicated by neoclassical growth models has been challenged in recent years. (For a summary of the theoretical discussions and the implications for EU accession countries, see World Bank (2001)). In the new growth literature, international factor mobility, the engine of real convergence in the neoclassical models, may not work in favor of convergence. If the assumption of diminishing returns to capital is relaxed, as in Romer (1986), foreign investment may not flow to less advanced economies where capital is scarce. In the same vein, if human capital is allowed to move freely, as in Lucas (1988), skilled labor may move from poorer to richer countries to take advantage of higher real wages, thus increasing cross country divergence.

Real convergence may also not materialize as a result of spatial externalities. Based on the new geography literature pioneered by Krugman (1991), returns on capital may be higher in areas where other firms are already producing similar products, as geographical proximity increases the probability of technology and human capital spillovers. These "agglomeration economies," or "silicon-valley" effects, would in turn reduce the incentives for capital inflows to less developed countries, and slow, or even halt, the process of real convergence.

Two theoretical arguments can be made for a positive correlation between macroeconomic stability and the speed of convergence. The first one is the standard argument that macroeconomic stability is good for investment, as it reduces the uncertainty associated with country risk. This has also been interpreted in an intertemporal context, where budgetary rules can solve the time-inconsistency problem associated with discretionary fiscal policies (see Kopits (2000) and IMF (2001a)). The second argument is that a more prudent macroeconomic policy in one country compared to a set of similar countries, like the EACs, may induce FDI to flow to that country first. As agglomeration economies occur, FDI flows to that country will be reinforced, thus resulting in a faster process of convergence. Anecdotal evidence on recent investment inflows in Ireland suggest that these 'bandwagon' or 'cascade' effect have strong empirical support (Barry, Bradley, and O'Malley (1999)).

Finally, while theoretical and empirical literature on the positive effect of macroeconomic stability and fiscal prudence for growth is extensive, the specific role of fiscal policy and macroeconomic stability has only received marginal attention in the convergence literature (for a notable exception, see World Bank (2001)).

before 1994, it was eliminated by 1998 and income stood at 16 percent above the EU average by 2000.⁴⁴ This reflects a spectacular acceleration of economic growth in the last six years, fueled by very large FDI inflows of more than 20 percent of GDP in 2000 alone.⁴⁵ It is worth noting that the successful convergence of the 1990s followed on a successful macroeconomic stabilization in the 1980s that was based on a substantial fiscal adjustment. The fiscal deficit was reduced from 14 percent of GDP in 1982 to less than 2 percent in 1989. At the same time, inflation fell from 17 percent to 4 percent.⁴⁶

⁴⁴ While the measurement of Ireland's GDP has been hampered by transfer pricing practices since the late 1980s, the PPP basis used here should in theory address this issue. The use of GDP on a PPP basis is also dictated by the lack of an alternative measure that is comparable across all EACs.

⁴⁵ The surge in the Irish FDI is partly explained by a strengthening of data collection, which from 1998 onwards also covered financial service activities, including those related to the International Financial Services Center.

⁴⁶ For an in-depth look at the fiscal adjustment in Ireland, see Honohan (1999).

Empirical Evidence

65. **Following the first oil price shock in 1973, the EACs experienced a protracted period of macroeconomic instability that in the end was only tamed by a sizable fiscal adjustment (Figures 7 and 8).** Ireland set the stage for fiscal adjustment in the 1980s, after a dramatic widening of the fiscal balance in the 1970s. This in turn led to a rapid decline of inflation from its peak in 1981. The Iberian countries followed a similar fiscal adjustment path in the mid-1980s, albeit from a lower initial imbalance. Greece delayed its adjustment until the 1990s, with a corresponding delay in the achievement of macroeconomic stability.

66. **The conditions of macroeconomic instability in the 1970s and 1980s undercut the ability of the EACs to attract substantial amounts of FDI (Figure 9).** Up to 1995, FDI inflows to all four EACs averaged about 2 percent of GDP annually, which even the advent of the European Single Market did not seem to alter immediately. However, after 1995, Ireland saw a strong rise in FDI inflows, with Spain and Portugal also registering a moderate increase.

67. **Prudent fiscal policies seem to condition not only macroeconomic stability but also FDI inflows and, consequently, real convergence.** A qualitative comparison between the fiscal balance (Figure 7) and the speed of real convergence (Figure 10) suggests a lagged positive relationship between the two. This is particularly evident in the 1990s when Ireland showed a consistently high speed of real convergence following the fiscal adjustment of the 1980s, while Greece, and to a lesser extent Portugal and Spain lagged behind.⁴⁷ Since 1995, fiscal adjustment and the achievement of macroeconomic stability seem to have also started to pay off for the southern EU members, with a positive speed of real convergence, albeit much less than Ireland.

68. **While many elements come into play in the process of real convergence, an attempt is made to quantify the role of fiscal policy and macroeconomic stability.** The following structural equation was estimated for each EAC:

$$SIC_t = \beta_0 + \beta_1 \Delta FDI_{t-L} + \beta_2 \Delta GGB_{t-L} + \beta_3 \Delta Infl_{t-L} + \beta_4 ESMT + \varepsilon_t \quad (1)$$

where SIC_t is the speed of income convergence,⁴⁸ ΔFDI_t is the change in inward FDI as a share of GDP, ΔGGB_t is the change in the general government balance in percent of GDP, $\Delta Infl_t$ is the change in annual CPI inflation, and $ESMT$ is a dummy variable controlling for the introduction of

⁴⁷ Honohan (1999) concludes that "the economic recovery of the late 1980s owed much to external factors, but the successful fiscal correction [...] injected a crucial element of long-term confidence about the direction of policy. That the recovery was sustained through the mid and later 1990s may also owe much to the legacy of fiscal adjustment [...]"

⁴⁸ Measured as the first difference of the ratio of per capita GDP of the EACs, on a PPP basis, to the average per capita GDP of the EU-15 countries (as shown in Figure 4).

Figure 8. EACs: Macroeconomic Stability, 1970-2000
(CPI inflation; in percent per annum)

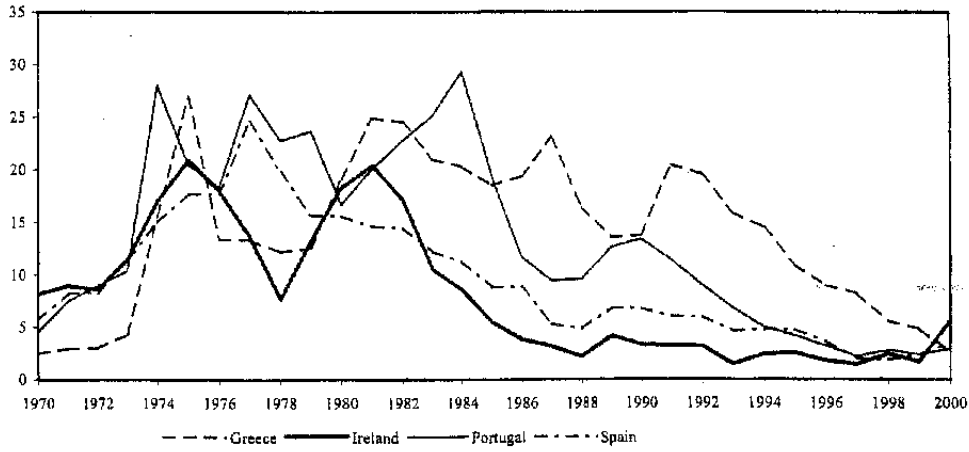


Figure 9. EACs: Annual FDI Inflows, 1970-2000
(In percent of GDP)

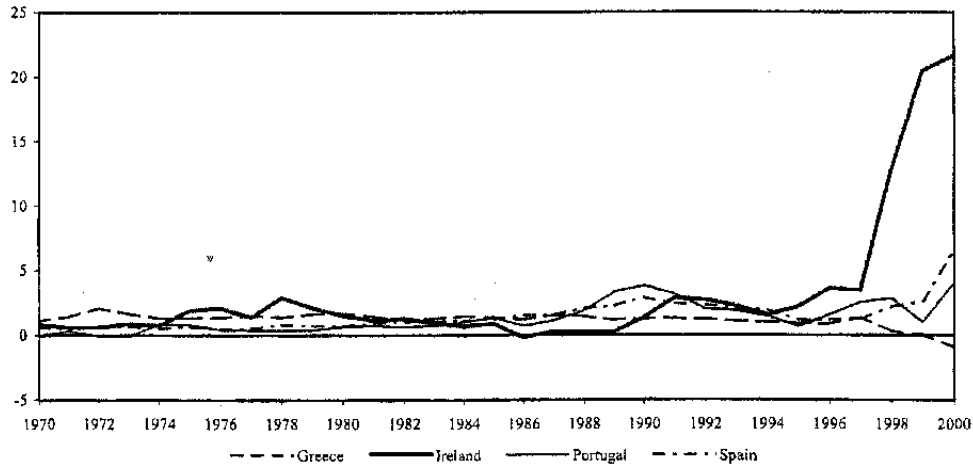
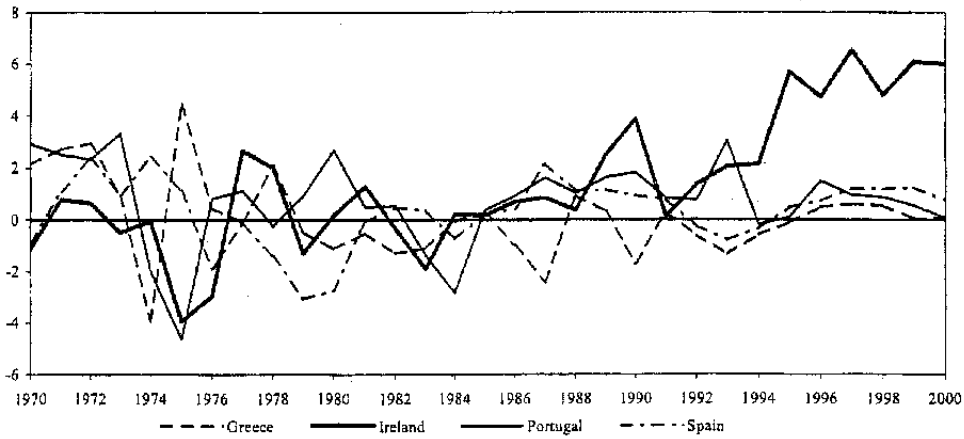


Figure 10. EACs: Speed of Real Convergence, 1970-2000
(First difference of ratio of per capita income to EU average, on PPP basis)



Source: International Financial Statistics; and Fund staff estimates.

the European Single Market in 1993.⁴⁹ The *L* subscript indicates the significant lag length, which was determined empirically on the basis of the Aikaike information criterion.

69. **The motivation for equation (1) rests on the recent literature on the role of prudent macroeconomic policies for growth.** Both the achievement of macroeconomic stability and fiscal adjustment have been shown to have a direct, albeit lagged, impact on growth and thus on the speed of convergence. Equation (1), however, should not be interpreted as a “full” convergence equation, as other factors beyond the scope of this paper have a significant bearing on convergence as well, notably human capital, institutional settings, political stability, etc.⁵⁰ The sample data comprises 31 annual observations per country.

70. **Formulation of equation (1) in first differences is dictated by the non-stationarity of the regressors in levels.** The unit root hypothesis cannot be rejected for the regressors in levels for every country. However, tests on the first difference of the regressors and the dependent variables indicate that the unit root hypothesis can be rejected at least at the 95th percentile, and for many at the 99th percentile (Table 4). Based on these results, equation (1) was estimated using a standard OLS procedure with heteroskedasticity-consistent standard errors (Table 5).

Table 4. EACs: Phillips-Perron Unit Root Tests
(Sample: 1970-2000)

	Greece	Ireland	Portugal	Spain
Variables ⁵¹				
Speed of income convergence	-5.406 **	-3.529 *	-3.842 **	-2.989 *
Change in FDI	-4.733 **	-3.340 *	-5.031 **	-7.219 **
Change in general government balance	-5.653 **	-7.980 **	-6.937 **	-5.090 **
Change in inflation	-4.907 **	-3.249 *	-6.023 **	-4.770 **

⁴⁹ All variables were derived from the IFS database, except for *SIC*, that was based on data from the WEO database. Some observations in the early 1970s not available in the IFS were derived from IMF staff papers. While it would be preferable to control also for the Maastricht treaty and the SGP in equation (1), the timing of the required fiscal adjustment has been different for each EAC; Greece, for example, only met the Maastricht criteria in 2000. All regressions were run using the E-Views 4.0 Software Package.

⁵⁰ Barro (1997).

⁵¹ A * next to the statistics indicates that the unit root hypothesis can be rejected at the 95th percentile. A ** indicates that the hypothesis can be rejected at the 99th percentile. The unit root test for the speed of income convergence for Ireland includes a trend term.

Table 5. EACs: OLS Regression Results
(White Heteroskedasticity-Consistent Standard Errors and Covariance)

	Greece	Ireland	Portugal 1/	Spain 1/
Dependent variable	Speed of Income Convergence			
Regressors: 2/				
Change in FDI inflows (T-ratio)	1.875 (-1) (2.162) *	0.197 (-1) (2.029) *	0.671 (-2) (1.781) +	0.599 (-1) (1.394)
Change in general government balance (T-ratio)	0.189 (-2) (1.722) +	0.187 (-1) (3.556) **	0.345 (-1) (2.416) *	0.144 (-1) (1.506)
Change in inflation (T-ratio)	-0.164 (-2.213) *	-0.074 (-0.738)	-0.152 (-1) (-3.072) **	-0.209 (-3) (-2.255) *
Single European market dummy (1993) (T-ratio)	-0.327 (-0.892)	4.201 (6.178) **	0.599 (1.698)	0.352 (1.459)
Diagnostics				
R-Square	0.387	0.677	0.409	0.597
Adjusted R-Square	0.313	0.639	0.280	0.505
S.E. of regression	1.293	1.593	1.414	0.912
F-statistics	4.474	86.729	5.791	5.840
Mean of dependent variable	-0.067	1.491	0.586	0.220
Residual sum of squares	41.825	65.971	45.993	18.284
DW-statistic	1.709	1.766	1.536	2.027
Serial correlation LM test (F-statistic) 3/	0.067	0.456	0.529	1.810
Alkaike information criterion	3.480	3.893	3.713	2.840
Equation log-likelihood	-46.459	-54.388	-47.837	-33.764

1/ For the Iberian countries, dummy variables were included for the year 1974 and 1979 to control for outliers associated with the first and second oil price shock. The coefficients on these dummy variables were all statistically significant. These outliers were not present in the other regressions.

2/ Lagged values are indicated by negative numbers in parentheses next to the coefficient of the regressor. The coefficient on a constant term was insignificant in all regressions. A + next to the T-ratio indicates that the corresponding coefficient is significant above the 90th percentile, while a * stands for a significance level above the 95th percentile; a ** indicates that the coefficient is significant at the 99th percentile.

3/ The Durbin-Watson statistics indicate no serial correlation in the residuals of each regression. To confirm these results, Breusch-Godfrey LM tests for serial correlation were run as well. These tests confirm that the null hypothesis of no serial correlation cannot be rejected at the 95th percentile in all regressions.

71. **The regression results seem to support the notion that prudent fiscal policy and macroeconomic stability contribute to convergence.** The coefficients on the change in the fiscal balance are all positive and highly significant for Ireland and Portugal and, at the 90th percentile level, also for Greece. The magnitude of the coefficients indicates that a fiscal adjustment of 1 percent of GDP leads to an increase in the speed of income convergence of 0.19 (Ireland and Greece) and 0.35 (Portugal) percentage points with a lag of one or two years. The coefficients also confirm that an increase in inflation has a negative and, except for Ireland, significant effect on convergence. A 1 percent increase in inflation leads to a decline in the speed of income convergence of 0.15 to 0.2 percentage points with a lag of zero to three years.

72. **As expected, FDI inflows have a positive effect on convergence.** The variable is highly significant in Greece and Ireland and, at the 90th percentile level, also in Portugal. The coefficients indicate that an increase in FDI inflows of 1 percent of GDP would increase the speed of income convergence by 0.2 percentage points in Ireland, 0.7 percentage points in Portugal, and 1.8 percentage points in Greece with a lag of 1 to 2 years. These coefficients are negatively correlated to the amount of FDI inflows to each country in the last thirty years, suggesting that the law of diminishing returns may be at work here. Finally, the coefficient on the dummy variable controlling for the introduction of the European Single Market is statistically significant only in Ireland and seems to have had a very large impact on convergence there. This could be interpreted as supporting the idea of a 'bandwagon' or 'cascade' effect of FDI following the introduction of the European Single Market, which may have accelerated Ireland's convergence.

73. **The importance of prudent macroeconomic policies for convergence goes beyond what the estimated coefficients imply.**⁵² The coefficients on the change in the fiscal balance and inflation may seem small compared to the ones on FDI inflows. However, the theoretical discussion above suggested that prudent policies were a precondition for large FDI inflows, which act as the engine for convergence. The indirect effects of policies on FDI might therefore be just as important as the direct ones captured by the regressions. As shown by the Irish example, the benefits from fiscal prudence and macroeconomic stability can be large and materialize in a rather short time span, although other factors, such as flexible labor markets with highly qualified tech workers, the English language advantage, and close links to the rapidly growing US economy, may have also played an important role.

74. **The Baltics are well placed to reap the benefits of macroeconomic stability.** The strict adherence to the discipline of currency board arrangements, together with a prudent fiscal policy, has already resulted in some of the highest per capita FDI inflows among accession countries. Continued prudence in macroeconomic management is likely to accelerate the process of convergence further before and after accession to the EU.

⁵² For a similar conclusion based on qualitative evidence, see World Bank (2001).

V. MEDIUM-TERM FISCAL FRAMEWORKS

A. General Principles and Objectives

75. **The previous chapters identified the need for the Baltics and other EU accession countries to pursue prudent fiscal policies.** This will be key to maintaining high and sustainable growth in a low-inflation environment and protecting their external positions. At the same time, EU and NATO accession will require shifts in the composition of spending and changes in taxation within a relatively short period of time. This may be complemented by steps to lower the tax burden, in particular on labor income and corporate profits. Moreover, transfers from the EU, while potentially sizable, will need to be complemented by national cofinancing and, upon EU accession, national payments to the EU.

76. **This chapter illustrates the potential tensions and trade-offs in the budgets of the Baltics over the next few years, as well as the financial flows with the EU.** However, such predictions are subject to a considerable margin of errors. The terrorist attacks of September 11 have amplified the usual uncertainty surrounding macroeconomic projections. In addition, uncertainty is added by the timing of accession; the length of transition periods accorded by the EU to each country under the various *acquis* chapters; each country's progress in building appropriate structures and institutions; possible changes to existing pre- and post-accession financial instruments; and the speed and specifics of the envisaged tax reforms.

77. **These fiscal challenges are assessed in the context of medium-term frameworks (Tables 6 to 8; Figures 11 and 12).** Three such frameworks are derived for each country, built on differing assumptions regarding the date of EU accession and growth. The baseline scenario assumes EU accession to take place at the earliest possible date, i.e., on January 1, 2004. The two alternative scenarios assume (i) EU accession at the same date, but in a low-growth environment; and (ii) EU accession in the more distant future, i.e., after 2006, which would also be associated with moderately lower growth than in the baseline scenario.

78. **The fiscal implications of NATO accession are reflected in the frameworks as well.** The NATO Membership Action Plan requires that aspirant countries devote "sufficient resources" to military spending but leaves it open to individual agreements with such countries to specify the magnitude of such spending.⁵³ In fact, NATO has made it clear that it does not expect new members to strain fragile budgets to purchase new equipment; instead, the focus should be on improving the existing military infrastructure. Nevertheless, as a general guideline, military spending at about 2 percent of GDP at the time of accession is seen as meeting the criterion of

⁵³ See <http://www.nato-pa.int/publications/resolutions/00-berlin-301.html>.

Table 6. Estonia: Summary Medium-term Fiscal Scenarios, 2000-2006
(in percent of GDP, unless indicated otherwise)

	2000	2001	2002	2003	2004	2005	2006
	Projections						
Scenario I (EU accession in 2004)							
Revenue and grants	38.9	38.3	39.4	39.0	40.7	40.8	40.8
Grants (EU)	0.6	0.7	1.1	1.0	2.7	2.7	2.7
Tax revenue	35.4	34.7	35.7	35.5	35.6	35.8	35.9
Nontax revenue	2.9	2.9	2.6	2.5	2.4	2.3	2.2
Expenditure	39.7	38.1	40.0	39.4	41.0	40.9	40.8
EU-related	0.8	0.9	2.3	2.2	5.1	5.1	5.1
Other	38.9	37.2	37.8	37.3	35.9	35.8	35.7
<i>Of which: discretionary spending 1/</i>	29.4	27.8	28.0	27.1	25.9	26.0	26.1
Primary balance	0.0	0.6	-0.3	-0.1	0.0	0.2	0.3
Real growth of discretionary expenditure relative to 2001, percentage change							
Assuming existing programs do not qualify for EU grants	...	...	4.4	5.9	6.2	11.6	17.3
Assuming half of EU grants and cofinancing finance existing programs	...	...	6.9	8.3	12.5	18.2	24.2
Necessary expenditure cuts (discretionary expenditures) relative to 2001							
Assuming existing programs do not qualify for EU grants	...	...	-0.2	0.7	1.8	1.8	1.6
Assuming half of EU grants and cofinancing finance existing programs	...	...	-0.8	0.1	0.3	0.2	0.1
Real growth	6.9	4.5	4.1	5.5	5.5	5.5	5.5
Scenario II (EU accession in 2004 and a reduction in growth)							
Revenue and grants	38.9	38.3	39.4	39.1	40.8	40.8	40.9
Grants (EU)	0.6	0.7	1.1	1.0	2.7	2.7	2.7
Tax revenue	35.4	34.7	35.7	35.5	35.6	35.8	35.9
Nontax revenue	2.9	2.9	2.6	2.5	2.4	2.4	2.3
Expenditure	39.7	38.1	40.0	39.5	41.0	40.9	40.9
EU-related	0.8	0.9	2.3	2.3	5.2	5.2	5.2
Other	38.9	37.2	37.7	37.2	35.9	35.8	35.7
<i>Of which: discretionary spending 1/</i>	29.4	27.8	27.8	26.8	25.6	25.7	25.7
Primary balance	0.0	0.6	-0.3	-0.1	0.0	0.2	0.3
Real growth of discretionary expenditure relative to 2001, percentage change							
Assuming existing programs do not qualify for EU grants	...	...	1.9	1.0	-0.8	2.1	5.1
Assuming half of EU grants and cofinancing finance existing programs	...	...	4.3	3.5	5.3	8.3	11.6
Necessary expenditure cuts (discretionary expenditures) relative to 2001							
Assuming existing programs do not qualify for EU grants	...	...	0.0	1.0	2.2	2.1	2.1
Assuming half of EU grants and cofinancing finance existing programs	...	...	-0.7	0.3	0.6	0.5	0.5
Real growth	6.9	4.5	2.1	3.5	3.5	3.5	3.5
Scenario III (EU accession after 2006)							
Revenue and grants	38.9	38.3	39.4	39.0	39.0	39.0	39.0
Grants (EU)	0.6	0.7	1.1	1.0	1.0	0.9	0.9
Tax revenue	35.4	34.7	35.7	35.5	35.6	35.8	35.9
Nontax revenue	2.9	2.9	2.6	2.5	2.4	2.3	2.2
Expenditure	39.7	38.1	40.0	39.4	39.3	39.1	39.0
EU-related	0.8	0.9	2.3	2.2	2.1	2.1	2.0
Other	38.9	37.2	37.8	37.3	37.2	37.0	37.0
<i>Of which: discretionary spending 1/</i>	29.4	27.8	28.0	27.0	27.1	27.2	27.3
Primary balance	0.0	0.6	-0.3	-0.1	0.0	0.2	0.3
Real growth of discretionary expenditure relative to 2001, percentage change							
Assuming existing programs do not qualify for EU grants	...	...	4.4	5.3	10.0	14.7	19.7
Assuming half of EU grants and cofinancing finance existing programs	...	...	6.9	7.7	12.4	17.1	22.0
Necessary expenditure cuts (discretionary expenditures) relative to 2001							
Assuming existing programs do not qualify for EU grants	...	...	-0.2	0.7	0.6	0.6	0.5
Assuming half of EU grants and cofinancing finance existing programs	...	...	-0.8	0.1	0.0	0.0	0.0
Real growth	6.9	4.5	4.1	5.0	4.9	4.8	4.7
Memorandum items							
Net lending (+)	0.5	0.0	0.1	0.0	0.0	0.0	0.0
Fiscal balance 2/	-0.3	0.3	-0.7	-0.4	-0.3	-0.1	0.0

Sources: Estonian authorities; and Fund staff estimates and projections.

1/ Defined as expenditure less EU-related spending, pensions, military expenditure, and interest payments

2/ Including the projected cost of the pension reform.

Table 7. Latvia: Summary Medium-term Fiscal Scenarios, 2000-2006
(in percent of GDP, unless indicated otherwise)

	2000	2001	2002	2003	2004	2005	2006
				Projections			
Scenario I (EU accession in 2004)							
Revenue and grants	37.4	36.3	36.4	36.9	38.3	38.6	38.8
Grants (EU)	0.5	0.6	1.0	1.2	2.3	2.5	2.7
Tax revenue 1/	31.4	31.0	30.8	30.8	31.1	31.1	31.0
Nontax revenue	5.5	4.7	4.7	4.8	4.9	5.0	5.1
Expenditure	40.7	37.8	38.0	37.7	39.0	38.7	38.6
EU-related	0.6	0.7	1.3	2.1	5.1	5.4	5.7
Other	40.1	37.1	36.6	35.6	33.9	33.3	32.9
<i>Of which: discretionary spending 2/</i>	27.7	26.3	25.7	25.1	23.8	23.8	23.9
Primary balance	-2.2	-0.8	-0.5	0.1	0.2	0.7	1.2
Real growth of discretionary expenditure relative to 2001, percentage change							
Assuming existing programs do not qualify for EU grants	...	...	2.5	5.8	6.2	13.0	19.9
Assuming half of EU grants and cofinancing finance existing programs	...	...	3.4	7.5	12.5	20.3	28.3
Necessary expenditure cuts (discretionary expenditures) relative to 2001							
Assuming existing programs do not qualify for EU grants	...	...	0.5	1.2	2.5	2.4	2.4
Assuming half of EU grants and cofinancing finance existing programs	...	...	0.3	0.8	1.1	0.9	0.7
Real GDP growth	6.6	7.0	4.5	6.0	6.0	6.0	6.0
Scenario II (EU accession in 2004 and a reduction in growth) 3/							
Revenue and grants	37.4	36.3	36.4	36.9	38.3	38.6	38.8
Grants (EU)	0.5	0.6	1.0	1.2	2.3	2.5	2.7
Tax revenue 1/	31.4	31.0	30.8	30.8	31.1	31.1	31.0
Nontax revenue	5.5	4.7	4.7	4.8	4.9	5.0	5.1
Expenditure	40.7	37.8	38.0	37.7	39.0	38.7	38.6
EU-related	0.6	0.7	1.3	2.1	5.2	5.5	5.8
Other	40.1	37.1	36.6	35.6	33.8	33.3	32.8
<i>Of which: discretionary spending 2/</i>	27.7	26.3	25.6	24.7	23.2	23.2	23.1
Primary balance	-2.2	-0.8	-0.5	0.1	0.3	0.8	1.3
Real growth of discretionary expenditure relative to 2001, percentage change							
Assuming existing programs do not qualify for EU grants	...	...	-0.2	0.3	-1.9	1.9	5.5
Assuming half of EU grants and cofinancing finance existing programs	...	...	0.7	2.1	4.1	8.7	13.3
Necessary expenditure cuts (discretionary expenditures) relative to 2001							
Assuming existing programs do not qualify for EU grants	...	...	0.7	1.5	3.0	3.1	3.2
Assuming half of EU grants and cofinancing finance existing programs	...	...	0.5	1.1	1.6	1.5	1.5
Real GDP growth	6.6	7.0	2.5	4.0	4.0	4.0	4.0
Scenario III (EU accession after 2006)							
Revenue and grants	37.4	36.3	36.4	36.9	37.3	37.4	37.5
Grants (EU)	0.5	0.6	1.0	1.2	1.3	1.3	1.4
Tax revenue 1/	31.4	31.0	30.8	30.8	31.1	31.1	31.0
Nontax revenue	5.5	4.7	4.7	4.8	4.9	5.0	5.1
Expenditure	40.7	37.8	38.0	37.7	38.0	37.5	37.3
EU-related	0.6	0.7	1.3	2.1	2.2	2.2	2.3
Other	40.1	37.1	36.6	35.6	35.8	35.4	35.0
<i>Of which: discretionary spending 2/</i>	27.7	26.3	25.7	25.0	25.6	25.7	25.8
Primary balance	-2.2	-0.8	-0.5	0.1	0.2	0.7	1.2
Real growth of discretionary expenditure relative to 2001, percentage change							
Assuming existing programs do not qualify for EU grants	...	...	2.5	5.1	13.4	19.9	26.4
Assuming half of EU grants and cofinancing finance existing programs	...	...	3.4	6.9	15.4	22.1	29.0
Necessary expenditure cuts (discretionary expenditures) relative to 2001							
Assuming existing programs do not qualify for EU grants	...	...	0.5	1.2	0.6	0.5	0.5
Assuming half of EU grants and cofinancing finance existing programs	...	...	0.3	0.8	0.2	0.1	0.0
Real GDP growth	6.6	7.0	4.5	5.5	5.4	5.3	5.2
Memorandum items:							
Net lending (+)	0.0	0.2	0.0	0.2	0.2	0.2	0.2
Fiscal balance 4/	-3.3	-1.7	-1.5	-0.9	-0.9	-0.3	0.0

Sources: Latvian authorities, and Fund staff estimates and projections.

1/ Excluding social tax revenue being channeled to the second pension pillar.

2/ Discretionary expenditures comprise all remaining expenditure items except pensions, interest payments, and military spending.

3/ This scenario assumes that real growth turns out to be 2 percentage points below the projections in Scenario I.

4/ After adjusting for social taxes channeled to the second pension pillar and the net cost of the pension amendments.

Table 8. Lithuania: Summary Medium-term Fiscal Scenarios, 2000-2006
(in percent of GDP, unless indicated otherwise)

	2000	2001	2002	2003	2004	2005	2006
				Projections			
Scenario I (EU accession in 2004)							
Revenue and grants 1/	30.3	29.4	30.1	30.1	31.6	31.6	31.6
Grants (EU)	...	...	1.1	1.1	2.8	2.7	2.7
Tax revenue	28.4	27.0	27.0	26.9	26.8	27.0	27.0
Nontax revenue	1.9	2.3	2.0	2.1	2.0	2.0	2.0
Expenditure 1/	32.4	31.0	31.2	30.8	32.2	32.1	32.1
EU-related	0.2	0.2	1.4	1.4	4.9	4.7	4.7
Other	32.2	30.8	29.9	29.5	27.3	27.3	27.3
<i>Of which: discretionary spending 2/</i>	19.1	17.7	17.2	17.0	15.0	15.5	15.5
Primary balance	-1.0	-0.1	0.1	1.0	1.1	1.1	1.1
Real growth of discretionary expenditure relative to 2001, percentage change							
Assuming existing programs do not qualify for EU grants	...	...	1.2	3.5	-3.5	5.2	11.5
Assuming half of EU grants and cofinancing finance existing programs	...	...	5.2	7.7	8.7	17.4	24.5
Necessary expenditure cuts (discretionary expenditures) relative to 2001							
Assuming existing programs do not qualify for EU grants	...	...	0.5	0.8	2.7	2.2	2.2
Assuming half of EU grants and cofinancing finance existing programs	...	...	-0.2	0.1	0.8	0.4	0.4
Real GDP growth	3.9	4.5	4.0	4.8	5.3	6.0	6.0
Scenario II (EU accession in 2004 and a temporary reduction in growth)							
Revenue and grants 1/	30.3	29.4	29.8	29.8	31.3	31.3	31.3
Grants (EU)	...	...	1.1	1.1	2.8	2.7	2.7
Tax revenue	28.4	27.0	26.7	26.6	26.5	26.7	26.7
Nontax revenue	1.9	2.3	2.0	2.0	2.0	1.9	1.9
Expenditure 1/	32.4	31.0	31.3	30.6	31.9	31.8	31.8
EU-related	0.2	0.2	1.4	1.4	4.9	4.8	4.8
Other	32.2	30.8	30.0	29.2	27.0	27.1	27.1
<i>Of which: discretionary spending 2/</i>	19.1	17.7	17.3	16.7	14.7	15.2	15.2
Primary balance	-1.0	-0.1	0.1	1.0	1.2	1.2	1.2
Real growth of discretionary expenditure relative to 2001, percentage change							
Assuming existing programs do not qualify for EU grants	...	...	-0.2	-1.9	-10.5	-4.3	-0.5
Assuming half of EU grants and cofinancing finance existing programs	...	...	3.7	2.1	1.0	7.1	11.4
Necessary expenditure cuts (discretionary expenditures) relative to 2001							
Assuming existing programs do not qualify for EU grants	...	...	0.4	1.0	3.0	2.5	2.5
Assuming half of EU grants and cofinancing finance existing programs	...	...	-0.3	0.3	1.1	0.7	0.7
Real GDP growth	3.9	4.5	2.0	2.8	3.3	4.0	4.0
Scenario III (EU accession after 2006)							
Revenue and grants	30.3	29.4	30.1	29.8	29.7	29.7	29.7
Grants (EU)	...	...	1.1	1.1	1.1	1.0	1.0
Tax revenue 1/	28.4	27.0	27.0	26.6	26.6	26.7	26.7
Nontax revenue	1.9	2.3	2.0	2.0	2.0	2.0	2.0
Expenditure 1/	32.4	31.0	31.2	30.6	30.3	30.2	30.2
EU-related	...	...	1.4	1.4	1.4	1.3	1.3
Other	32.2	30.8	29.9	29.2	28.9	28.9	28.9
<i>Of which: discretionary spending 2/</i>	19.1	17.7	17.2	16.7	16.6	17.1	17.1
Primary balance	-1.0	-0.1	0.1	1.0	1.1	1.1	1.1
Real growth of discretionary expenditure relative to 2001, percentage change							
Assuming existing programs do not qualify for EU grants	...	...	1.2	1.4	6.2	14.7	20.2
Assuming half of EU grants and cofinancing finance existing programs	...	...	5.2	5.6	10.6	18.9	24.6
Necessary expenditure cuts (discretionary expenditures) relative to 2001							
Assuming existing programs do not qualify for EU grants	...	...	0.5	1.0	1.1	0.6	0.6
Assuming half of EU grants and cofinancing finance existing programs	...	...	-0.2	0.3	0.4	0.0	0.0
Real GDP growth	3.9	4.5	4.0	4.3	4.5	4.8	4.8
Memorandum items:							
Net lending (+)	0.7	0.1	0.4	0.0	0.0	0.0	0.0
Fiscal balance 3/	-2.8	-1.7	-1.5	-0.8	-0.6	-0.5	-0.5

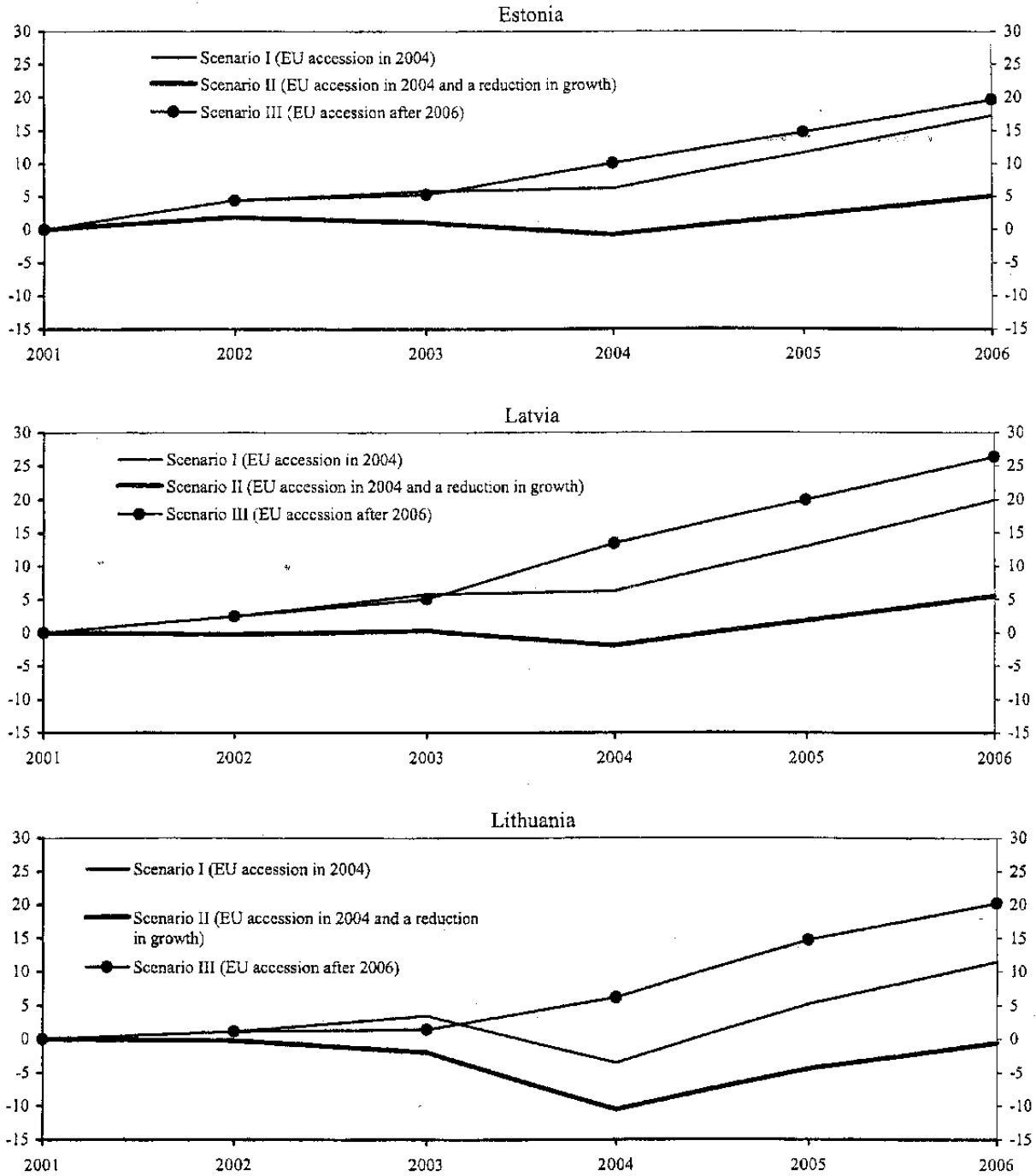
Sources: Lithuanian authorities; and Fund staff estimates and projections.

1/ Excluding payroll tax contributions by general government to the Social Insurance Fund (SoDra).

2/ Other expenditure excluding benefits paid by SoDra, defense spending, and interest.

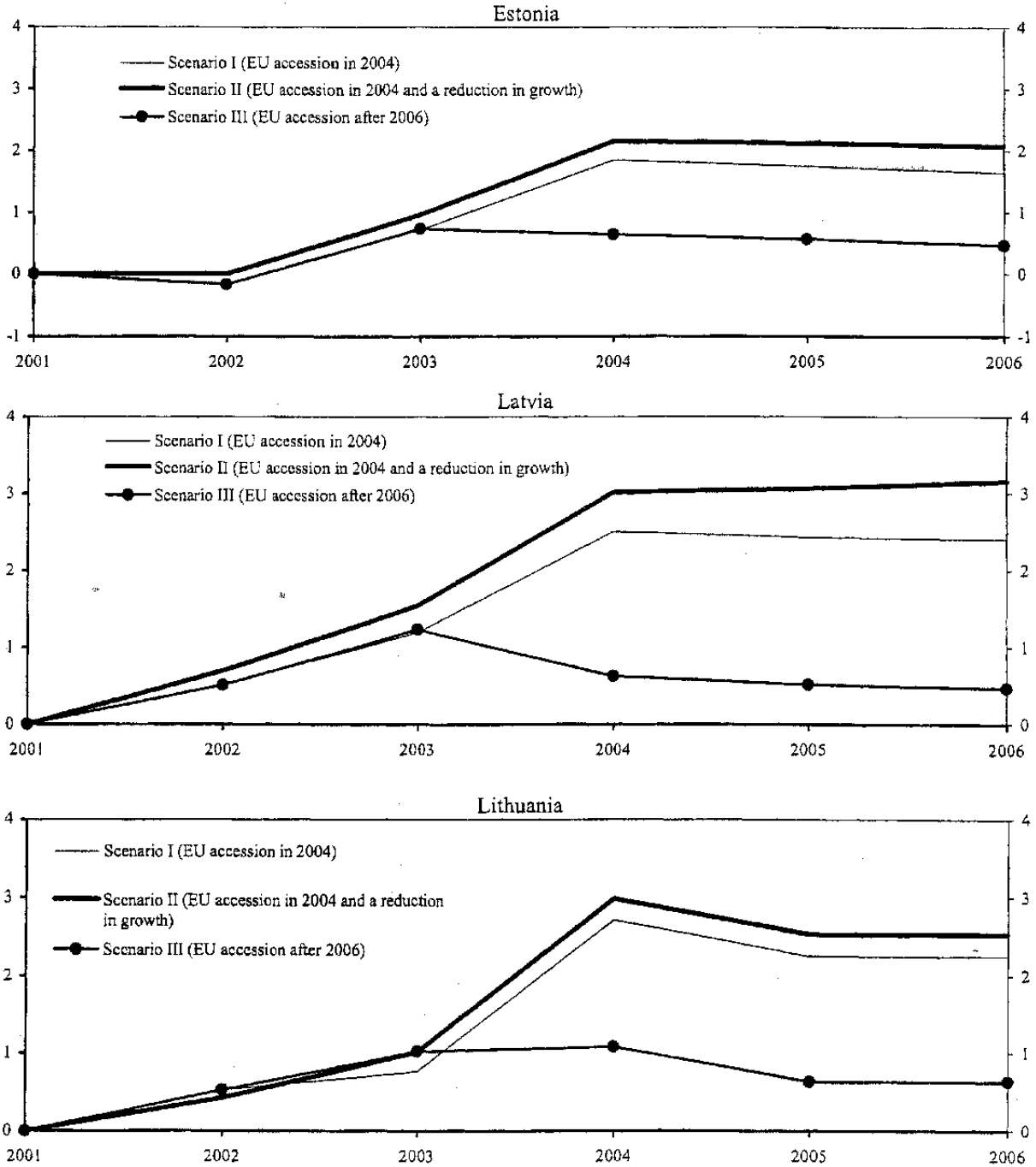
3/ Assuming the implementation of the pension reform from 2004 onward with a loss of 0.5 percent of GDP of the payroll tax revenue, excluding contributions by the general government, and an increase of 0.1 percent of GDP in expenditure representing contributions by the general government to the mandatory second pillar.

Figure 11. The Baltic Countries: Real Growth in Discretionary Spending Relative to 2001 under the Various Scenarios (percentage change)



Source: Staff calculations and projections.

Figure 12. The Baltic Countries: Reduction in Discretionary Spending Relative to 2001 under the Various Scenarios (in percent of GDP)



Source: Staff calculations and projections.

“sufficient resources”,⁵⁴ and the three Baltic countries have repeatedly reiterated their intention to meet, or come close to, this standard by 2003.⁵⁵

79. **The frameworks illustrate that expenditure would need to be reprioritized to make room for new spending related to EU and NATO accession, as well as for possible tax reform and harmonization efforts.** In other words, the new priorities would partially crowd out some discretionary spending if the authorities are to adhere to their balanced budget objective. However, the EU will support the accession candidates in this endeavor with net financial assistance. The frameworks provide some preliminary estimates of the pre- and post-accession financial flows between the EU and the Baltic countries, which are projected to rise substantially in the years following accession (Box 10).

80. **The mandated reorientation of spending will lead to an increase in capital outlays, essentially related to the EU pre- and post-accession financial instruments, while restraint will be necessary with respect to current expenditure.** Based on the analysis in Chapter II, such restraint could be effected on account of (i) the wage bill, as wage increases are projected to be moderate and the impact of civil service reforms will be felt; (ii) improved targeting of social benefits; and (iii) effective cuts in purchases of goods and services. Public sector reforms, as well as the move toward medium-term budget planning, should help in this process. In addition, the sustained economic growth, a further liberalization of the labor markets, and the projected reduction in labor taxation are expected to reduce unemployment and help curtail transfer payments from the government to households. Similar beneficial effects are expected from the impact of the recently adopted pension reforms, which are projected to reduce pension transfers over the medium-term. Finally, a decline in interest payments in Latvia and Lithuania should help the authorities' efforts, as the move toward a balanced budget will lower financing costs.

81. **This reprioritization notwithstanding, discretionary spending would still rise in real terms on average during the next five years.** Under the baseline scenario, the annual real increase in such spending could average about 3 percent in all three countries, but would be more generous in the post-accession years. This points to the need for comparatively tighter budgets in the pre-accession years, which could be relaxed somewhat upon accession when more support from the EU will become available.

82. **As a consequence, relative to 2001, discretionary spending would decrease by 1½ to 2½ percentage points of GDP by 2006.** However, the need for such curtailment would be

⁵⁴ From the three countries that joined NATO in 1999 (the Czech Republic, Poland, and Hungary), only the former two met the military spending target of 2 percent of GDP at the time of accession, while Hungary's defense expenditure were only about 1 percent of GDP.

⁵⁵ Under the 2001 national budgets, military spending amounts to 1.8 percent of GDP in Estonia, 1.3 percent of GDP in Latvia, and 2 percent of GDP in Lithuania. Latvia aims to raise military spending to 2 percent of GDP by 2003, while Estonia expects to do so by 2002.

Box 10. EU Pre- and Post-Accession Financial Instruments

Preaccession:

There are three distinct programs under which financial support can be secured: Phare, ISPA, and SAPARD. The **Phare** program aims at supporting acquis-related institution building and investments in social and economic cohesion, which eventually results in overall compliance with EU norms. Key requirements of the program are: (i) a 30/70 percent split between institution building and investments; (ii) investments need to be at least euro 2 million; and (iii) projects require at least 25 percent cofinancing from the national budget.

The **ISPA** program aims at contributing to the pre-accession preparation in the areas of economic and social cohesion. Assistance is granted for the improvement of the environment and for transport and infrastructure projects. Key requirements of the program are: (i) project cost should be at least euro 5 million; (ii) projects usually require at least 25 percent cofinancing, in some cases 0 or 15 percent; (iii) technical assistance can be supported; and (iv) the combined assistance under ISPA and other community aid shall not exceed 90 percent.

The **SAPARD** program targets the implementation of the acquis with regard to the EU's common agricultural and related policies. It focuses its support on 15 eligible measures in the context of rural development programs. Key requirements are: (i) no minimum cost per measure; (ii) technical assistance, as well as preliminary studies and evaluations initiated by the EC, can be supported; and (iii) the cofinancing share is usually at least 25 percent, but zero percent for technical assistance projects. For revenue-generating investments, public aid may amount up to 50 percent of the total eligible cost, of which the community contribution may amount up to 75 percent.

The Baltics have begun to attract funds from all three programs. Allocation estimates from the EC indicate that, on average, the Baltics could attract about 1 to 1¼ percent of GDP in preaccession support each year.

Postaccession:

In order to manage the interaction between the national budgets and the EU financial system and monitor the budgetary impact of EU membership, the Baltic countries need to develop a sophisticated budgeting and monitoring system. While on a net basis, membership in the EU will certainly be beneficial, it will also lead to significant additional financing needs. Like during the pre-accession phase, EU-funded projects require national cofinancing. In addition, other acquis-related expenditure may only in part be covered through EU transfers—most notably in the area of environmental policies, transport and infrastructure, and the common agricultural policy. The composition of budget flows between the EU and the Baltics can be best described as follows:

In terms of transfers from the EU budget to the national budgets, the following items are the most relevant:

- **Agriculture:** This item comprises direct support, issues related to the common agricultural policy, as well as rural development and accompanying measures.
- **Structural & Cohesion Funds:** The cohesion fund comprises transport and environment (aiming at the promotion of economic and social cohesion and solidarity between members of the union) while structural funds include regional development programs (ERDF), labor market and human resources (ESF), agricultural industry in rural areas (EAGGF), and fisheries (FIFG).
- **Internal Policies**
- **Collection Costs:** 25 percent of the traditional own resources (see below) to reimburse for their collection.

In terms of transfers from national budgets to the EU the following items are relevant:

- **Traditional Own Resources:** This item comprises custom duties, agricultural levies, and levies on sugar.
- **VAT Payment:** Fraction of national VAT base to be paid to the EU budget.
- **GNP Payment:** Fraction of national GNP to be paid to the EU budget.
- **EIB Payment:** One-time payment to the European Investment Bank to become shareholder.
- **EDF Payment:** Payments into the European Development Fund.

Total payment appropriations in the EU budget are limited to 1.27 percent of community GNP, the EU's own resources. At the Berlin summit, it was decided that this ceiling is going to be maintained until 2006.

reduced to the extent that the authorities' current investment program and some other spending categories (e.g., related to agriculture) qualify for EU assistance.⁵⁶ On the other hand, the scenarios anticipate that limits on their absorptive capacity will prevent the Baltics from coming close to the 4 percent of GDP cap on transfers from the EU budget during the early post-accession years; if this assumption is relaxed, the necessary reduction in discretionary spending may be underestimated because of the larger cofinancing needs.

83. In a low-growth environment (Scenario II), discretionary spending would be flat in real terms, leading to a larger reduction in the expenditure-to-GDP ratio than under the baseline scenario to maintain the balanced budget objective at all times. If EU accession took place in the more distant future (Scenario III), discretionary spending would grow faster in real terms than under the baseline scenario, and cuts would likely be smaller in terms of GDP. However, growth prospects would be less promising and real convergence with EU income levels slower, and external vulnerabilities would increase.

84. The frameworks underline the importance of a medium-term setting of budgetary planning and decision-making. Such a need for a medium-term planning horizon was also the underlying motivation for the European Commission to subject accession candidates to the pre-accession fiscal surveillance procedures (PFS), which include, among other things, the regular submission of Pre-Accession Economic Programs (PEP) (Box 11). This medium-term orientation of budgeting and planning is intended to provide the national authorities with sufficient room for maneuver in conducting effective stabilization policies in the face of unexpected shocks. The Baltics have begun to move toward medium-term budget planning.⁵⁷

B. Scenario I: EU Accession in 2004⁵⁸

85. Under this scenario, EU accession is assumed to take place in early 2004. The Baltics will aim to gradually achieve a broadly balanced budget over the medium term. This will ensure a continuation of the current successful policy mix and thus foster robust growth and safeguard the external current account position. It is expected that all three economies will continue to grow

⁵⁶ A non-negligible part of spending that will be supported from the EU is likely to represent a continuation of existing programs. For example, investment in road infrastructure are likely to be undertaken by the national authorities irrespective of EU accession. As a result, the extent of the slowdown in the real increase in non-priority spending in all three scenarios could be overstated. To address this problem, a range is provided in the tables, with the lower end represented by the assumption that half of EU financial assistance and cofinancing would finance existing programs.

⁵⁷ In Lithuania, for example, the organic budget law passed in 2000 requires that a three-year budget projection should accompany the annual budget document.

⁵⁸ Appendices II to IV provide a quantification of the medium-term macroeconomic framework and a more detailed presentation of the baseline fiscal scenario for each country.

strongly and sustainably, at about 4 to 6 percent annually, over the next five years, driven by exports and investment by both the private and the public sectors and fostered by the prospect of early EU accession. On the supply side, continued efficiency and competitiveness gains are expected in line with progress made on the structural front. Inflation would remain moderate, at 3 to 3½ percent, reflecting faster productivity growth than that of trading partners and leading to renewed real appreciation of the exchange rates (the Balassa-Samuelson effect).

Box 11. Pre-Accession Fiscal Surveillance (PFS)

With EU accession and EMU participation in sight, the Baltics need to prepare for participating in the multilateral surveillance and economic policy coordination procedures. The pre-accession fiscal surveillance procedure aims at preparing candidate countries for post-accession policy coordinating structures. PFS closely resembles the EU's permanent fiscal surveillance procedure for members and comprises the following two components:

- **Notification** is related to the provision of detailed information on government debt, fiscal deficits, GDP, and other key macroeconomic and financial variables. A meaningful multilateral surveillance approach to fiscal operations requires not only a sophisticated information system for budgetary operations and commonly defined accounting standards (ESA 95), but also sufficient administrative and analytical capacity. Member states are required to submit the relevant data every six months; candidate countries made their first submission in April 2001. Each notification is evaluated by the European Commission, comprising a data summary, an assessment whether the quality of the notification data is of sufficiently high standard to allow for fiscal analysis, an assessment of compliance with ESA 95, and monitoring of current fiscal developments based on the submitted notification.
- The **Pre-Accession Economic Program (PEP)** are to be prepared by the accession countries and submitted to the European Commission for the first time in 2001, to be followed by annual updates. It is intended to (i) provide an overview of the economic reforms being undertaken or still needed to accede to the EU; and (ii) help assess the development of institutional and analytical capacity that is necessary to participate in EMU, most notably in areas of economic analysis and medium-term policy planning. Key areas to be covered in the PEP are:
 - A **review of recent economic developments** comprising recent macroeconomic performance, institutional developments, and possibly any political and economic events that may have prevented the authorities from realizing their objectives.
 - A detailed **macroeconomic framework** comprising the main policy objectives, with intermediate goals, and quantitative scenarios and projections of key macro variables with a five-year time horizon.
 - A detailed presentation of the **medium-term fiscal objectives**, including the general government deficit, primary balance, and public indebtedness. Objectives need to be clearly defined and explained as well as assessed in terms of feasibility. In the pre-accession phase, the EU's main concern is medium-term fiscal sustainability rather than achieving specific fiscal targets as laid out under the Maastricht criteria. Thus, deficits may well be different in different accession countries, possibly depending on economic growth, external vulnerabilities, or the extent of still needed structural reforms.
 - A **structural reform agenda**, including in areas such as related to privatization, corporate governance, the financial sector, the labor market, the public sector, and agriculture. As such, the PEP will contain two policy matrices: one to summarize the policy commitments contained in the latest PEP and a second one comparing past commitments with actual outcomes.
- Once the PEP is submitted, it is evaluated by the European Commission, summarizing program objectives, assessing policies, and evaluating institutional and analytical preparations for future EMU participation.

Estonia and Latvia submitted their PEP in May 2001 and Lithuania, as requested, in October 2001.

86. **The future large investment needs, coupled with a catch-up in private consumption, will make a further reduction in the current account deficits less likely.** Private savings are

projected to be fostered by rising incomes, the further development and sophistication of financial markets, the reduction in payroll taxes, and pension reform in general. However, it can be assumed that households will have a relatively stable or only moderately rising marginal propensity to save outside the pension system, leading to a broad stabilization of private saving over the medium term (it will actually decline somewhat in Lithuania). At the same time, private investment is expected to remain buoyant.

87. The current account deficits are expected to improve somewhat in Latvia and Lithuania over the next few years, mirroring the expected strengthening of the governments' saving-investment balances. The external current account deficits will be largely or fully financed by FDI, thus keeping the Baltics' already low external debt indicators in check. While privatization of large-scale public enterprises could bolster FDI inflows in Latvia and Lithuania in the early years—this process is already completed in Estonia—more sustained FDI inflows are expected for all three countries owing to an improved business environment, sustained economic growth, and, most importantly, integration with the EU. Nevertheless, FDI inflows underlying the projected medium-term macroeconomic framework are lower relative to GDP than during the last four years.

88. It is expected that the national governments will succeed in striking a balance between the need to (i) adhere to the balanced budget objective over the medium term; (ii) consolidate and reorient expenditure to meet EU and NATO accession requirements, with a noticeable rise in government investment; and (iii) implement tax harmonization requirements and some tax reform proposals.

89. The baseline scenarios for the three countries have some common basic assumptions and features, but also reveal some striking differences:

- A moderate primary surplus will be achieved over the medium term, which is consistent with a broadly balanced budget of the general government. This illustrates the positive public debt dynamics of all three countries.⁵⁹
- On the revenue side, the Baltics are expected to fully benefit, by 2002, from the allocations for which they are eligible under the three pre-accession instruments, which is equivalent to about 1 percent of GDP. The countries are projected to benefit from the post-accession financial instruments starting in 2004. Such transfers from the EU related to agricultural, structural, and internal policies, and to cover collection costs, are

⁵⁹ Given the scope of the task, it is assumed that overall fiscal balance would be achieved by 2006 only; in Lithuania, this is assumed to be achieved excluding the costs of pension reforms (about ½ percent of GDP), contrary to the other two countries. All three countries would have a fiscal deficit below 1 percent of GDP by 2004, the assumed accession year. This translates into a primary surplus beginning that year at the latest.

conservatively estimated to range between 2 and 3 percent of GDP in 2004-06,⁶⁰ but could, in theory, be up to 4 percent of GDP if the Baltics significantly increased their absorptive capacity.

- Tax revenues relative to GDP are projected to remain broadly stable. In Estonia and Latvia, this partially reflects reductions in tax rates—especially regarding the social tax and, in the case of Latvia, the corporate income tax—which are compensated by a broadening of the tax base and improved tax administration.⁶¹ In addition, the EU-mandated tax harmonization is expected to have a beneficial impact on collections of VAT and excises. All of these developments tend to increase somewhat the share of indirect taxes in total tax revenue, mirroring similar past efforts in advanced economies. In Lithuania, the authorities are planning to reduce the personal income tax by compensating it with higher revenue of the corporate income tax, especially by broadening the tax base. Indirect taxes are expected to decline relative to GDP over the medium term, as the sales tax will be abolished and long transition periods for raising excise tax rates are being negotiated.
- Upon accession, total spending relative to GDP is assumed to rise moderately as a result of higher spending financed by the increase in EU transfers. Nevertheless, in all three countries, a significant reallocation of appropriations becomes necessary, leading to a decline in “other” (i.e., non-EU-related) expenditure relative to GDP. In real terms, however, such spending would still rise.
- EU-related spending will more than double between 2003 and 2004. This reflects three broad spending categories: First, transfers to the EU budget, comprising in particular the so-called GNP and VAT payments. Such transfers *to* the EU budget are equivalent to about 1 percent of GDP and represent about half of the transfers received *from* the EU budget, thereby ensuring a sizable positive net position with the EU budget. Second, the required cofinancing of EU-supported projects, which could amount to approximately 1 percent of GDP. And third, other acquis-related spending, which varies from country to country. In the case of Latvia, implementation of the environmental chapter is expected to cost about LVL 700 million over a 14-year period, implying clean-up costs of about 0.5 percent of GDP per year after 2002. Costs of similar magnitude are estimated for

⁶⁰ Such estimates, including on the split between the various instruments, are largely based on information from the EU and a study on Lithuania, prepared by Finnish experts in 2000 (PHARE-Project LI/EI 9701, 2000, “Support to European Integration in Lithuania (SEIL),” Final Report of the Sub-Project Support for Policy Impact Analysis/Budgetary Impact, Helsinki (August).

⁶¹ For example, in Latvia, it is projected that the corporate income tax is reduced in three steps from the current rate of 25 percent to 15 percent. At the same time, some tax exemptions under the corporate income tax law and the foreign investment law are being phased out. The scenario also reflects a lowering of the social tax rate from 35 percent in 2001 to 31 percent by 2006.

Estonia to implement the environment and transport chapters, while—based on incomplete information—in Lithuania the public sector costs of implementing key chapters would not exceed 0.4 percent of GDP per annum.

90. **Overall, discretionary expenditure could still grow annually by between 2¼ and 3¾ percent in real terms on average during the next five years.**⁶² The pre-accession years will involve relatively smaller real increases in such spending in all three countries, while the post-accession years will allow all three countries more room in expanding such spending again. Compared to 2001, the shift in expenditure toward EU-related spending at the expense of discretionary spending is about 1½ to 2½ percent of GDP by 2006.

C. Scenario II: EU Accession in 2004 in a Low Growth Environment

91. **This scenario represents the impact of a *permanent* external shock affecting the Baltics in 2002, while EU accession is assumed to take place in 2004.** Such scenario would be the most pessimistic of the three scenarios and thus require very difficult policy choices from the national authorities if they were to adhere to the balanced budget objective.

92. **Simplifying assumptions were used to illustrate the impact of such an external shock.** With growth assumed to be lower by 2 percentage points during 2002-6 relative to Scenario I, it is assumed that all revenue categories, including the flows with the EU budget, are kept constant in terms of GDP; thus, their nominal values are reduced accordingly. On the expenditure side, it is assumed that interest payments, pension payments, and acquis-related expenditures are kept constant in nominal terms, thus their ratio in percent of GDP increases, with all other spending categories experiencing a reduction in nominal terms.

93. **As a consequence, discretionary spending would, on average, remain broadly flat in real terms to maintain the projected fiscal balance.** Relative to GDP, such spending would fall by about 2 to 3 percentage points in all three countries, somewhat larger than in the baseline scenario. Overall, the significantly reduced room for real growth of discretionary spending in a low-growth environment would make the pursuit of a strictly balanced budget strategy demanding.

D. Scenario III: EU Accession in the More Distant Future

94. **This scenario assumes that EU accession will not take place before 2006.** While based on the Laeken decision and the Baltics' progress in closing the acquis chapters, it appears unlikely

⁶² The different real spending growth rates across countries largely reflect differing assumptions for nominal GDP growth and inflation, especially in the early years. For example, consumer price inflation is higher in Estonia than in Latvia and Lithuania, especially in 2001, reflecting Estonia's peg to the euro. This reduces real spending growth in Estonia relative to Latvia despite similarities in the level of necessary cuts relative to GDP. The relatively low growth in nominal and real GDP in Lithuania leads to lower real spending increases than in the other two cases.

that this scenario will actually materialize, it is an interesting scenario in that it provides a "pure" pre-accession framework. Under this scenario, financial flows coming from the EU are limited to the expected magnitudes of the three pre-accession financial instruments and clearly distinguishable spending, including the national cofinancing shares, related to such support.

95. **As a result, the fiscal situation, as well as pre-accession financial flows and fiscal implications between 2001 and 2003, is similar to Scenario I.** However, the pre-accession flows are projected to continue until 2006. In addition, the macroeconomic framework would be somewhat less favorable, as the growth impetus associated with EU accession is weaker.

96. **The need to reorient discretionary spending would be the least demanding in this scenario.** This mainly reflects that lower national cofinancing shares for EU-related projects need to be made available. Overall, discretionary spending would fall in terms of GDP by about ½ percentage points relative to 2001, compared to 1½ to 2½ percentage points in the baseline scenario. In addition, the real growth rates for discretionary spending would be the highest under this scenario, at 4 to 5 percent per annum.

97. **This scenario illustrates the relatively lower pressure on the accession candidates to reorient their spending toward high-priority categories, as more time is available to tackle the difficult choices to be made.** This "advantage" would need to be weighed against the lower growth path under this scenario, as FDI inflows would be less buoyant, thereby delaying the real convergence process.

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Determining the Medium-Term Fiscal Position: The Role of Public and External Debt Sustainability

This Appendix assesses the extent to which the sustainability of public and external debt, and the current account, may play a role in setting medium-term fiscal targets in the Baltics. Analysis of the sustainable fiscal stance typically focuses on whether it can be financed at an acceptable inflation rate without a trend rise in public debt ratios. The current account, and especially the need for debt-creating financing, can also be a factor constraining the macroeconomic stance as investors are averse to what may be seen as unsustainable trends in external debt. The analysis is undertaken within a simple quantitative framework.¹

The Public Debt Anchor

Fiscal sustainability is often assessed based on the sustainability of public debt. One simple such approach is to determine the primary fiscal balance (p) that is required to achieve a stable debt-to-GDP ratio (d)². It is given by the following relationship:

$$p = (r-g) d / (1+g) - a \quad (1)$$

where r denotes the real interest rate; g the real GDP growth rate, and a non-debt financing (e.g. privatization receipts). As long as the real interest rate on public debt exceeds the real growth rate of the economy, public debt would tend to grow faster than GDP unless a country runs a primary surplus. The larger the wedge between the real interest rate and the real growth rate, the larger the primary surplus needed to stabilize the debt-to-GDP ratio.

Table 1 shows the primary balances consistent with stable public debt ratios. Assuming a real interest rate of 4½ percent, stable public debt ratios would be consistent with a broadly balanced primary position in each country. Real interest rates on public debt have in fact been significantly lower than 4½ percent in recent years, but real long-term bond yields in the euro area have averaged 4½ percent over the past ten years. Estonia is likely to run a primary surplus this year, while Latvia and Lithuania are expected to do so within the next one or two years, indicating that, if the positions are maintained, debt ratios will fall from their current levels. Under less favorable assumptions—of lower growth and a higher real interest rate—public debt stability would still be consistent with a balanced primary position in Estonia and Latvia, and with a primary surplus of ½ percent of GDP in Lithuania.

¹ Such an approach was also used in IMF (2001b).

²Chalk and Hemming (2000) note that the condition of a non-increasing debt ratio, while intuitively appealing and useful for practical purposes, is not the same as the theoretical notion of fiscal sustainability. The latter attempts to determine whether current or alternative policies can be sustained over the long run, and is derived in terms of the government's present value budget constraint. However, as Blanchard (1990) notes, the above condition is often used as a substitute for the present value budget constraint.

However, the optimal level at which public debt should be stabilized is unclear. It will depend, in the first instance, on how debt affects the economy—an issue on which there is little consensus.³ Public debt is low in terms of GDP in Estonia and Latvia at 6 percent and 15 percent, respectively, following the prudent fiscal stance throughout most of the transition period, and is relatively low in Lithuania at 29 percent. The Baltics could thus allow debt ratios to rise for some time, before their debt levels were considered too costly in terms of their impact on credit ratings and risk premia. As an extreme example, Table 1 shows the primary balances that would be consistent with a rise in debt ratios to 60 percent of GDP by 2020, one of the two SGP criteria for assessing fiscal discipline. Estonia and Latvia could, in theory, run annual primary fiscal deficits of around 2½-3 percent of GDP until 2020, and Lithuania around ¾-1¼ percent of GDP, before their debt ratios reached 60 percent of GDP. But the implicit overall fiscal deficit associated with such primary deficits would quickly exceed 3 percent of GDP—the other reference criterion used, under the SGP, for assessing fiscal discipline. The extent to which the Baltics should take advantage of this flexibility depends on a range of other factors, as discussed in Chapter III.

The External Debt and Current Account Anchor

External considerations can also play a crucial role in assessing the sustainability of a country's macroeconomic position and prospects. Vulnerability to balance of payments crises tends to grow with increasing external imbalance and indebtedness.⁴ Such an approach usually focuses on (i) the sustainability of the current account (including its financing through non-debt creating flows) and of its external debt; and (ii) determining the fiscal position that is consistent with external sustainability, subject to assumptions about the private savings and investment. The behavior of private investment and savings, however, is volatile, and their response to changes in fiscal policy uncertain (discussed in the main text). The following section will focus on the first part of the analysis, namely defining external sustainability.

The current account deficit that stabilizes the ratio of net foreign debt to GDP (*NFD*) is given by the following formula:

$$ca = nd + g^* / (1 + g^*) NFD \quad (2)$$

where *ca* denotes the current account deficit, *g** the growth of nominal GDP in foreign currency terms, and *nd* non-debt creating balance of payments financing which is assumed, in this case, to equal net FDI.⁵ FDI inflows are subject to some uncertainty, but a prudent assumption for the medium-term would be in the order of 5 percent of GDP per annum—this

³ For a further discussion, see Boadway and Wildasin (1993). The relationship between debt and economic performance is also likely to vary across countries and from time to time.

⁴ See, for example, Frankel and Rose (1996) and IMF (1998).

⁵ Those forms of FDI which are debt creating should ideally be excluded. The analysis could be further refined by the *inclusion* on non-debt creating flows of portfolio equity investment.

is below the Baltics' average inflows from 1997-2000 (a period comprising the Russia crisis in 1998). The Baltics' favorable prospects for EU accession are likely to ensure that inflows of foreign capital remain substantial despite the completion of most major privatization projects. Table 2 shows the current account balances consistent with stable external debt ratios. Current account deficits are slightly above this level in Estonia and Latvia, suggesting net external debt may rise a little above its current very low level. Current account deficits are already below this level in Lithuania, and are projected to fall further over the medium-term, implying a gradual reduction in net external debt.

Any dependence on international capital markets can leave a country vulnerable to a reversal in market sentiment. The above conclusion could change if FDI inflows faded noticeably, as lower current account deficits would be needed to achieve a given debt target. If annual FDI inflows fell to 3 percent of GDP, and GDP growth was 1 percentage point lower, current account deficits would need to fall to 4 percent of GDP in Estonia and Latvia, and remain at 6 percent of GDP in Lithuania, to stabilize external debt at current levels. The current account would respond endogenously to FDI changes, especially if reduced FDI flows were concentrated among manufacturers using the Baltics as outsourcing centers. The net impact is unclear as export and import growth would tend to fall in such circumstances.

External debt is low in Estonia and Latvia. A moderate increase in external debt ratios over the medium-term may thus not necessarily precipitate a sudden and damaging reversal of capital flows. This would be especially the case where foreign borrowing was used to finance productive investment that enhanced the countries' long-term growth prospects. There are limits at which this process would start to be perceived as unsustainable, raising the possibility of a sudden withdrawal of capital. However, these limits can differ substantially across countries and times,⁶ depending on both country-specific and external factors (both real and perceived). As with public debt, there is no clear benchmark at which the magnitude of external imbalances would become a binding constraint on fiscal policy. However, a degree of prudence is warranted in determining the fiscal stance.

In summary, these factors, in the absence of any other constraints, suggest scope for some flexibility in setting fiscal policy without running up against concerns about debt or external sustainability. Such a conclusion is based on the assumptions that the Baltics continue to grow strongly, and FDI inflows remain substantial, both of which seem likely given the favorable prospects for EU accession. External sustainability could, however, become a concern in the event of a significant reduction in FDI inflows, in particular if this were also associated with a reduction in economic growth. In such circumstances, a tighter fiscal policy would be appropriate. Moreover, other factors (discussed in Chapter III) also suggest that the Baltics should adopt a more constrained approach to setting fiscal policy.

⁶ As transition economies, the Baltics can be expected to run large current account deficits, as rapid productivity growth provides profitable investment opportunities in excess of domestic savings. Such foreign saving channeled into productive domestic investment also constitute a key determinant of the speed of income convergence with advanced economies.

Table 1. Public Debt Sustainability Under Alternative Assumptions
(percent of GDP, unless otherwise indicated)

	Estonia		Latvia		Lithuania	
	baseline	pessimistic	baseline	pessimistic	baseline	pessimistic
Primary fiscal balance consistent with: 1/						
Stable public debt ratio	-0.1	0.0	-0.2	0.0	0.1	0.6
Public debt ratio of 60 percent in 2020	-3.0	-2.5	-2.8	-2.3	-1.3	-0.7
Assumptions:						
Real GDP growth (in percent)	5.5	4.5	6.0	5.0	4.0	3.0
Real interest rate (in percent) 2/	4.5	5.0	4.5	5.0	4.5	5.0
Non-debt financing	0.0	0.0	0.0	0.0	0.0	0.0
Memorandum items:						
Public debt ratio (2000)	6.2		15.0		29.0	
Primary fiscal balance (2000)	0.0		-2.2		-1.1	

Source: country authorities and staff estimates.

1/ The primary balance is defined as total revenue minus non-interest expenditure.

2/ Illustrative assumptions. The average implied real interest rate on government debt from 1998-2000 (calculated as a ratio of interest payment to government debt, deflated by GDP inflation) has been close to zero in Estonia, and around 1 percent and 3 percent in Latvia and Lithuania respectively.

Table 2. External Debt Sustainability Under Alternative Assumptions
(percent of GDP, unless otherwise indicated)

	Estonia		Latvia		Lithuania	
	baseline	pessimistic	baseline	pessimistic	baseline	pessimistic
Current account balance consistent with:						
Stable external debt ratio 1/	6.0	3.9	6.2	4.0	6.8	6.0
Assumptions:						
Net non-debt creating flows (FDI) 2/	5.0	3.0	5.0	3.0	5.0	3.0
Nominal GDP growth (in foreign currency)	8.5	7.5	9.0	8.0	7.0	6.0
Real GDP growth	5.5	4.5	6.0	5.0	4.0	3.0
Memorandum items:						
Current account deficit (2000)	6.4		6.9		6.0	
Net external debt (2000)	13		14		26	

Source: country authorities and staff estimates.

1/ Calculations based on stabilizing net external debt at current levels.

2/ Baseline and conservative assumptions based on average and minimum annual FDI flows in the Baltic countries from 1997-2000.

3/ The fixed exchange rate regimes in the Baltic countries imply that nominal GDP growth is the same in both domestic and foreign currency terms.

Estonia: Baseline Scenario: Medium Term Fiscal and Macroeconomic Framework

	2000	2001	2002	2003	2004	2005	2006
	Projections						
General government operations:							
	(In percent of GDP, unless otherwise indicated)						
Revenue and grants	38.9	38.3	39.4	39.0	40.7	40.8	40.8
Grants	0.6	0.7	1.1	1.0	2.7	2.7	2.7
<i>Of which: from EU</i>	0.6	0.7	1.1	1.0	2.7	2.7	2.7
Current revenue	38.3	37.6	38.3	38.0	38.0	38.1	38.1
Tax revenue	35.4	34.7	35.7	35.5	35.6	35.8	35.9
Taxes on incomes and profits	8.7	8.1	8.3	8.3	8.3	8.3	8.3
Payroll taxes	12.2	12.2	12.8	12.5	12.4	12.4	12.4
Taxes on goods and services	12.8	12.8	13.0	13.1	13.2	13.4	13.5
Taxes on international trade	0.0	0.0	0.1	0.1	0.1	0.1	0.1
Other taxes	1.6	1.6	1.5	1.5	1.5	1.5	1.5
Nontax revenue	2.9	2.9	2.6	2.5	2.4	2.3	2.2
Expenditure and net lending	39.2	38.1	39.9	39.4	41.0	40.9	40.8
Expenditure	39.7	38.1	40.0	39.4	41.0	40.9	40.8
EU-related	0.8	0.9	2.3	2.2	5.1	5.1	5.1
Spending of EU grants and cofinancing	0.8	0.9	2.3	2.2	4.0	4.0	4.0
Payments to the EU	0.0	0.0	0.0	0.0	1.1	1.1	1.1
VAT payments	0.0	0.0	0.0	0.0	0.2	0.2	0.2
GNP payments	0.0	0.0	0.0	0.0	0.8	0.8	0.8
Own resources	0.0	0.0	0.0	0.0	0.1	0.1	0.1
EIB payments	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	38.9	37.2	37.8	37.3	35.9	35.8	35.7
<i>Of which: discretionary spending 1/</i>	29.4	27.8	28.0	27.1	25.9	26.0	26.1
Net lending	0.5	0.0	0.1	0.0	0.0	0.0	0.0
Primary balance	0.0	0.6	-0.3	-0.1	0.0	0.2	0.3
Fiscal balance 2/	-0.3	0.3	-0.7	-0.4	-0.3	-0.1	0.0
<i>Memorandum items:</i>							
Capital expenditure 3/	3.4	3.5	4.5	4.5	4.9	4.9	4.9
Real growth of discretionary expenditure relative to 2001, percentage change							
Assuming existing programs do not qualify for EU grants	...	...	4.4	5.9	6.2	11.6	17.3
Assuming half of EU grants and cofinancing finance existing programs	...	...	6.9	8.3	12.5	18.2	24.2
Necessary expenditure cuts (discretionary expenditures) relative to 2001							
Assuming existing programs do not qualify for EU grants	...	...	-0.2	0.7	1.8	1.8	1.6
Assuming half of EU grants and cofinancing finance existing programs	...	...	-0.8	0.1	0.3	0.2	0.1
Public and publicly guaranteed debt	6.2	5.6	5.0	4.6	4.3	3.9	3.6
Macroeconomic framework:							
Real GDP growth, percentage change	6.9	4.5	4.1	5.5	5.5	5.5	5.5
Average CPI index, percentage change	4.0	5.7	3.0	3.5	3.5	3.5	3.5
Current account balance	-6.4	-6.8	-6.8	-6.5	-6.5	-6.5	-6.5
National savings	18.4	18.3	18.8	19.1	19.6	19.8	19.9
Public savings	3.0	3.8	3.8	4.1	4.6	4.8	4.9
Private savings	15.4	14.5	15.0	15.0	15.0	15.0	15.0
Investment	24.8	25.1	25.6	25.6	26.1	26.3	26.4
Public investment	3.4	3.5	4.5	4.5	4.9	4.9	4.9
Private investment	21.5	21.6	21.1	21.1	21.2	21.4	21.5

Sources: Estonian authorities, and Fund staff estimates and projections.

1/ Defined as expenditure less EU-related spending, pensions, military expenditure, and interest payments.

2/ Including the projected cost of the pension reform.

3/ Includes estimate of grant-financed capital expenditure for 2000/01

Latvia: Baseline Scenario: Medium Term Fiscal and Macroeconomic Framework

	2000	2001	2002	2003	2004	2005	2006
	Projections						
General government operations: (In percent of GDP, unless otherwise indicated)							
Revenue and grants	37.4	36.3	36.4	36.9	38.3	38.6	38.8
Grants	0.5	0.6	1.0	1.2	2.3	2.5	2.7
<i>Of which: from EU</i>	0.5	0.6	1.0	1.2	2.3	2.5	2.7
Current revenue	36.9	35.7	35.5	35.7	36.0	36.1	36.1
Tax revenue	31.4	31.0	30.8	30.8	31.1	31.1	31.0
Taxes on incomes and profits	7.7	8.0	7.9	7.9	8.0	8.1	8.1
Payroll taxes 1/	10.8	10.3	10.2	10.2	10.2	10.2	10.2
Taxes on goods and services	11.9	11.6	11.6	11.6	11.8	11.7	11.6
VAT	7.8	7.7	7.7	7.8	7.9	7.9	7.8
Taxes on international trade	4.1	3.9	3.9	3.8	3.9	3.9	3.8
Other taxes	1.0	1.1	1.1	1.1	1.1	1.1	1.1
Nontax revenue	5.5	4.7	4.7	4.8	4.9	5.0	5.1
Expenditure and net lending	40.7	38.0	37.9	37.9	39.2	38.9	38.8
Expenditure	40.7	37.8	38.0	37.7	39.0	38.7	38.6
EU-related	0.6	0.7	1.3	2.1	5.1	5.4	5.7
Spending of EU grants and cofinancing	0.6	0.7	1.2	1.5	3.5	3.8	4.1
Other acquis related	...	...	0.1	0.5	0.5	0.5	0.5
Payments to the EU	...	...	...	...	1.1	1.1	1.1
VAT payments	...	...	...	...	0.2	0.2	0.2
GNP payments	...	...	...	...	0.8	0.8	0.8
Own resources	...	...	...	...	0.1	0.1	0.1
EIB payments	...	...	...	...	0.0	0.0	0.0
Other	40.1	37.1	36.6	35.6	33.9	33.3	32.9
<i>Of which: discretionary spending 2/</i>	27.7	26.3	25.7	25.1	23.8	23.8	23.9
Net lending	0.0	0.2	0.0	0.2	0.2	0.2	0.2
Primary balance	-2.2	-0.8	-0.5	0.1	0.2	0.7	1.2
Fiscal balance 3/	-3.3	-1.7	-1.5	-0.9	-0.9	-0.3	0.0
<i>Memorandum items:</i>							
Capital expenditure	4.0	3.2	3.9	4.3	5.8	6.1	6.4
Real growth of discretionary expenditure relative to 2001, percentage change							
Assuming existing programs do not qualify for EU grants	...	...	2.5	5.8	6.2	13.0	19.9
Assuming half of EU grants and cofinancing finance existing programs	...	...	3.4	7.5	12.5	20.3	28.3
Necessary expenditure cuts (discretionary expenditures) relative to 2001							
Assuming existing programs do not qualify for EU grants	...	...	0.5	1.2	2.5	2.4	2.4
Assuming half of EU grants and cofinancing finance existing programs	...	...	0.3	0.8	1.1	0.9	0.7
Public and publicly guaranteed debt (external)	9.9	12.1	12.3	11.5	11.1	11.3	11.2
Public and publicly guaranteed debt (domestic)	5.1	5.3	6.6	7.8	8.6	8.9	9.2
<i>Macroeconomic framework:</i>							
Real GDP growth, percentage change	6.6	7.0	4.5	6.0	6.0	6.0	6.0
Average CPI index, percentage change	2.6	2.5	3.0	3.0	3.0	3.0	3.0
Current account balance	-6.9	-7.1	-7.0	-6.4	-6.1	-5.8	-5.2
National savings	20.2	20.5	20.7	21.5	22.7	23.6	24.7
Public savings	0.7	1.6	2.3	3.0	4.1	4.9	5.7
Private savings	19.5	18.9	18.3	18.5	18.6	18.6	19.0
Investment	27.1	27.7	27.7	27.9	28.9	29.4	29.9
Public investment	4.0	3.3	3.9	4.0	5.0	5.3	5.7
Private investment	23.1	24.4	23.8	23.9	23.9	24.1	24.2

Sources: Latvian authorities, and Fund staff estimates and projections.

1/ Excluding social tax revenue being channeled to the second pension pillar.

2/ Discretionary expenditures comprise all remaining expenditure items except pensions, interest payments, and military spending.

3/ After adjusting for social taxes channeled to the second pension pillar and the net cost of the pension amendments.

Lithuania: Baseline Scenario: Medium Term Fiscal and Macroeconomic Framework

	2000	2001	2002	2003	2004	2005	2006
	Projections						
General government operations: (In percent of GDP, unless otherwise indicated)							
Revenue and grants	30.3	29.4	30.1	30.1	31.6	31.6	31.6
Grants 1/	0.0	0.0	1.1	1.1	2.8	2.7	2.7
Of which: from EU	0.0	0.0	1.1	1.1	2.8	2.7	2.7
Current revenue	30.3	29.4	29.0	29.0	28.8	28.9	28.9
Tax revenue	28.4	27.0	27.0	26.9	26.8	27.0	27.0
Taxes on incomes and profits 2/	8.5	7.9	7.7	7.0	7.8	8.0	8.0
Payroll taxes 3/	7.1	6.6	6.6	6.6	6.2	6.3	6.3
Taxes on goods and services 4/	11.4	11.2	11.2	11.2	10.8	10.8	10.8
Taxes on international trade	0.3	0.3	0.2	0.2	0.2	0.1	0.1
Other taxes 5/	1.1	1.0	1.3	1.8	1.8	1.8	1.8
Nontax revenue	1.9	2.3	2.0	2.1	2.0	2.0	2.0
Expenditure and net lending	33.0	31.1	31.6	30.8	32.2	32.1	32.1
Expenditure	32.4	31.0	31.2	30.8	32.2	32.1	32.1
EU-related 1/	0.2	0.2	1.4	1.4	4.9	4.7	4.7
Spending of EU grants and cofinancing	0.2	0.2	1.4	1.4	3.8	3.6	3.6
Payments to the EU	0.0	0.0	0.0	0.0	1.1	1.1	1.1
VAT payments	0.0	0.0	0.0	0.0	0.2	0.2	0.2
GNP payments	0.0	0.0	0.0	0.0	0.8	0.8	0.8
Own resources	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Other 6/	32.2	30.8	29.9	29.5	27.3	27.3	27.3
Of which: discretionary spending 7/	19.1	17.7	17.2	17.0	15.0	15.5	15.5
Net lending	0.7	0.1	0.4	0.0	0.0	0.0	0.0
Primary balance	-1.0	-0.1	0.1	1.0	1.1	1.1	1.1
Fiscal balance 8/	-2.7	-1.7	-1.5	-0.8	-0.6	-0.5	-0.5
Memorandum items:							
Capital expenditure	1.9	1.6	1.4	1.8	2.9	3.3	3.3
Real growth of discretionary expenditure relative to 2001, percentage change							
Assuming existing programs do not qualify for EU grants	...	...	1.2	3.5	-3.5	5.2	11.5
Assuming half of EU grants and cofinancing finance existing programs	...	...	5.2	7.7	8.7	17.4	24.5
Necessary expenditure cuts (discretionary expenditures) relative to 2001							
Assuming existing programs do not qualify for EU grants	...	...	0.5	0.8	2.7	2.2	2.2
Assuming half of EU grants and cofinancing finance existing programs	...	...	-0.2	0.1	0.8	0.4	0.4
Public and publicly guaranteed debt	28.8	29.0	28.4	27.0	24.7	22.8	22.0
Macroeconomic framework:							
Real GDP growth, percentage change	3.9	4.5	4.0	4.8	5.3	6.0	6.0
Average CPI index, percentage change	1.0	1.4	2.8	3.0	3.0	3.0	3.0
Current account balance	-6.0	-5.8	-5.8	-5.5	-5.3	-5.1	-4.8
National savings	14.8	13.9	14.1	14.4	15.9	16.2	16.5
Public savings	-0.2	-0.1	0.3	1.0	2.3	2.8	2.8
Private savings	14.9	14.0	13.9	13.4	13.6	13.4	13.6
Investment	20.7	19.7	19.9	19.9	21.2	21.3	21.3
Public investment	1.9	1.6	1.4	1.8	2.9	3.3	3.3
Private investment	18.8	18.1	18.5	18.2	18.3	18.0	18.0

Sources: Lithuanian authorities, and Fund staff estimates and projections.

1/ Data on grants and their spending for 2000-01 are not available. Only cofinancing is reflected.

2/ Tax exempt minimum of the personal income tax is increased to LTL 250 in 2002. The broadening of the CIT base and a reduction in the CIT rate start in 2002 with a positive impact on revenue in 2003. The revenue loss associated with a reduction in PIT taxation matches revenue gains on the CIT in the medium term.

3/ Reflects a 0.5 percent loss in consolidated payroll tax revenue from 2004 onward due to pension reform.

4/ Gross turnover tax is gradually phased out during 2002-3. Excises on nonexcisable goods in the EU are abolished in 2002. Excises on diesel and tobacco are gradually increased, and a new warehousing procedure for excisable goods is introduced in 2002. VAT rules are re-aligned with the EU requirements in 2002.

5/ Specific taxes are introduced on sugar, perfumes, cars, jewelry, and electricity in 2002. A real estate tax levied by municipalities is extended to improvements from 2003. Taxes on pollution are increased in 2004.

6/ Reflects an increase of 0.1 percent of GDP of contributions by the general government to the second pillar of the pension system from 2003.

7/ Other expenditure, excluding benefits paid by Sondra, defense spending, and interest.

8/ Including the cost of the pension reform of 0.6 percent of GDP.