Integration of the Baltic States into the EU and Institutions of Fiscal Convergence

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Abstract

This paper evaluates the functioning, suitability, and effectiveness of the Maastricht convergence criteria regarding fiscal policy and the Stability and Growth Pact for the Baltic States. We argue that the Maastricht fiscal targets from the Baltic perspective should be considered as long-term goals as opposed to short-run objectives of fiscal policy. Using the European Commission's approach as well as impulse response and variance decomposition techniques, we assess the fiscal discipline and cyclical sensitivity of each state's budget to changes in output gap. Empirical evidence indicates that Estonia and Latvia have been more successful in maintaining fiscal discipline than Lithuania during 1996-2000. We also observe that the Stability and Growth Pact signed in July 1997 would offer enough room for automatic fiscal stabilizers in Estonia and Latvia, but not necessarily in Lithuania. Policy implications of the findings for future perspectives are also discussed.

Keywords: Fiscal policy, Stability, Growth, Pacts, Output measure, Budget balance.

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I. Introduction

The provisions of the Maastricht Treaty regarding the European Monetary Union (EMU) provide the legal basis for eventual full economic and monetary union in the European Union (EU). This paper deals with institutions of fiscal convergence, namely the Maastricht convergence criteria on fiscal policy and the Stability and Growth Pact. Fiscal institutions are analyzed from the point of view of three Baltic States, Estonia, Latvia, and Lithuania, in order to evaluate the functioning, suitability and effectiveness of the Maastricht convergence criteria on fiscal policy and the Stability and Growth Pact for the countries.

The suitability is based on the past fiscal performance in the Baltic countries, ongoing transition, and their aspirations to become EU members. Regarding the effectiveness, North's theory of institutions (North 1990, 1991, and 1997) suggests that a certain institution or institutional framework is efficient, if it contributes to economic growth. While the latter is the eventual result of effective institutions, the effectiveness of an institution or an institutional matrix is related also to its credibility. Regulations and procedures would be ineffective, if economic actors, whether companies, individuals, or countries, do not implement these agreed rules and procedures. Thus, compliance and enforcement are part of the effectiveness of institutions.[1] Given the desire of the Baltic States integration into the EU, institutions can be considered effective not only if they contribute to economic growth but also if they promote integration towards full EU membership, including, at some point, also participation in the euro-zone.

It should be noted at the outset that considerable data comparability problems still persist in the area of public finance, especially with respect to the definitions and the coverage of government deficits in

[1] Several studies have emphasized the importance of institutions in shaping budgetary policies and outcomes (see, for example, Alesina and Perotti, 1996; Bayoumi and Eichengreen, 1995; Corsetti and Roubini, 1996; Von Hagen, 1992; and Von Hagen and Harden, 1996). All these studies, however, focus on western European countries. To our knowledge, this is among the first studies that examine these issues for the candidate Baltic States.

the eastern European candidate countries, including the Baltic States. In this paper, we work with limited data available as provided by the Baltic fiscal authorities to the EU. Due to such data limitations, the results and suggestions made in this study can be best interpreted only as indicative.

One may also question the relevance, at the moment, of analyzing the Maastricht fiscal criteria for the Baltic States, arguing that these criteria will be binding only in a distant future. We do, however, think that the role of the European Union's fiscal institutions for the Baltic States is increasing in importance. Overall, this paper emphasizes that the Maastricht fiscal targets do represent important "longer term" policy goals for the Baltic States. Thus, today's policy making should also take such goals into consideration while dealing short run problems and objectives.

This "long-run" view is also supported by the EU Commission's recent actions. First, the Directorate General for Economic and Financial Affairs (DG ECFIN) has launched this year its pre-accession fiscal surveillance mechanism for candidate countries. It consists of two elements: an annual debt and deficit notification, and the preparation by the applicant countries of a Pre-accession Economic Program. Second, Günter Verheugen, who is responsible for the European Commission's Eastern enlargement, has recently stressed the importance of the Maastricht criteria from a long-run perspective for the candidate countries. He stated that while "there is a clear order of priorities: first the Copenhagen criteria for accession and then the Maastricht criteria for the euro"… "the Maastricht Criteria have to be met in full"…and "there will be no opt out from the currency union".[2]

The rest of the paper is organized as follows: In section II, we describe the functioning of the institutions in question, i.e. the Maastricht fiscal convergence criteria and the Stability and Growth Pact. Section III reviews the past fiscal performance and convergence

[2] Verheugen Gunter. Member of the European Commission responsible for Enlargement. Debate on EU enlargement in the European Parliament. Strasbourg, 4 September 2001.

in the Baltic States, measured against the Maastricht budgetary rules. In addition, future perspectives for fiscal policy are discussed. Section IV discusses the suitability and effectiveness of the fiscal institutions while section V provides output gap estimates using the Hodrick-Presscott procedure to examine the cyclical sensitivity of the Baltic national budgets. Section V also offers evidence about the suitability of the Stability and Growth Pact for offering enough room for automatic fiscal stabilizers. Overall conclusions follow in section VI.

II. Institutions of Fiscal Convergence and Discipline: *The Maastricht Convergence Criteria and the Stability and Growth Pact*

Fiscal discipline is crucial for the success of EMU. Sound fiscal policy promotes price stability and sustainable growth in output and employment. In principle, market forces could work against irresponsible fiscal policy actions. However, evidence shows that the discipline exerted by financial markets does not necessarily ensure that governments take into account their budget constraints.[3] This provides a good case for supplementing market forces with some common rules. Indeed, there is a growing consensus in the literature that budgetary institutions are important determinants of fiscal performance (Buti and Sapir, 1998, and also see the references in footnote 4).

While inadequate fiscal institutions may not be the main reason for deficits or debts, they do tend to slow down the budgetary adjustment processes towards a sound budgetary position. Perhaps among the strongest empirical examples of fiscal institutions are the rules specified by the Maastricht Treaty, which established the European Community as amended by the Treaty of Amsterdam (thereof to be referred as the "Treaty") and the Stability and Growth Pact signed in Amsterdam in June 1997. Such rules provide countries in the EU, and in particular those, which have adopted the euro, with a common code of fiscal conduct. The rules (thereof referred as Maastricht rules) consist of reference values for deficits and debt to be achieved within a

[3] See, for example, European Central Bank (1999).

certain timeframe, a common accounting framework for computing public finance variables, and a call to adapt national procedures to the requirements of budgetary discipline.

In Stage Three of EMU, fiscal policy remains an exclusive competence of the member countries. While the Treaty ensures absolute budgetary autonomy, the conduct of national budgetary policies is nevertheless subject to rules of budgetary discipline and coordinating procedures at the Community level (Title VII, Chapter I on "Economic Policy").[4] The general guidelines and rules ensure that member states regard their economic policies as a matter of common concern, on the basis of the close co-ordination of member states' economic policies within the ECOFIN Council.[5]

The Maastricht criteria with respect to sustainable fiscal position mean that a country should avoid excessive deficit. There are two interpretations of the excessive deficit. One refers to a situation where a country's budget deficit is higher than 3 % of GDP. However, a couple of exceptions to this rule are accepted. The first applies if the ratio has declined substantially and continuously and has reached a level that comes close to 3% of GDP – the condition of closeness. The second exception refers to a situation where the higher than 3 % of GDP deficit is only exceptional and temporary and the deficit remains close to 3% of GDP – the conditions of exceptionality and temporariness. It should be emphasized that for a member state to be exempt from being in an excessive deficit position all three conditions outlined -exceptionality, temporariness and closeness- need to apply simultaneously.

The other interpretation for unbalanced fiscal situation is the ratio of gross government debt to GDP exceeding 60%. Again, one exception is accepted. That is when the ratio is sufficiently diminishing and

[4] All references in this article refer to provisions of the Amsterdam Treaty, which came into force on May , 1999 and which consolidates the provisions of the Maastricht Treaty and the amendments made to it thereafter.

[5] ECOFIN Council consists of the Ministers of Finance and Economy of the EU member countries.

approaching the reference value at a satisfactory pace. Finally, the decision as to whether a country has an excessive deficit or not lies with the ECOFIN Council (thereof referred as Council), which acts upon recommendations received from the European Commission.

In June 1997 the European Council reached a final agreement regarding the Stability and Growth Pact. [6] The Pact lays down the rules for economic policy co-ordination and defines the conditions under which the excessive deficit procedure is applied in Stage three of EMU. Technically, the Pact consists of two Council regulations and a European Council resolution.[7] The regulations clarify the Treaty's provisions concerning excessive deficits, especially the situation in which the 3 per cent reference value is exceeded. In addition, the regulations determine the timing and magnitude of the sanctions imposed on a member country having an excessive deficit. The resolution in turn is an expression of political commitment, providing guidance to the Council and member states on the application of the Pact, but without any legal force.

Under the provisions of the Stability and Growth Pact, countries participating in the monetary union commit themselves to a medium-term budget target of "close to balance or surplus budget". This means that while the budget deficit is kept at or below the reference value, normal cyclical fluctuations are still allowed. In the context of the Stability and Growth Pact, those member states that are part of the euro-zone are obliged to submit to the ECOFIN Council and the European Commission stability programs. If a member state has not yet adopted the single currency, it will provide a convergence program. The programs are annually updated and they should contain the Member State's medium-term objective for a close to balance or surplus budget, as well as the adjustment path towards this objective. In addition, their content and format follow an agreed pattern. Twice a

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[6] See:http://www.europa.eu.int (Policies: monetary and fiscal affairs, budget).

[7] Council Regulations (EC) No. 1466/97 & 1467/97 of 7 July 1997 and Resolution of the European Council of 17 June 1997.

year (March 1 and September 1) the member states have to provide budgetary data to the European Commission, which then reports to the Council. The Council either approves the national stability program, or requires a country to make adjustments to it. In case the Council comes to a conclusion that a country has an excessive deficit, a member country is called to make adjustments and the Council issues recommendations regarding the implementation of these adjustment measures.

From the time of reporting by the member country, the Council has three months time to decide on the existence of excessive deficit. In practical terms, the Council must make its decisions by the beginning of June, assuming that data was submitted to the Commission at the beginning of March or by the beginning of December, if the data was submitted at the beginning of September. The Council can recommend that excessive deficits are corrected as soon as possible and may establish two deadlines. First one requires the member country to take effective action within four months after identification of an excessive deficit. The other deadline calls for the completion of the correction of an excessive deficit within a year following the identification of an excessive deficit.

The Council monitors the overall implementation of the national budget programs and, if necessary, imposes sanctions or even intensifies sanctions on a member state concerned. Within seven months from the submission of the report by a member country (by October or by April), the Council makes a decision whether its recommendations have been followed and implemented. At this point the Council also considers whether the recommendations should be made public. After one month from this, (November 1 or May 1), or within eight months from the submission of the report by the member country, the Council must decide on measures to reduce the deficit. The member country can avoid sanctions if, after the Council has requested concrete measures, it takes the necessary measures in two months time after receiving the notification. After these two months (by January 1 or July 1), the Council can impose sanctions, provided that a member state has failed to take necessary measures or that the measures have been inad-

equate. Within four months from this point onwards (by May or November), the Council decides on an intensification of the sanctions or makes a public statement announcing that an excessive deficit no longer exists.

All in all, the procedural steps outlined in the Stability and Growth pact introduces a ten-month time frame from the member country's submission of budgetary data to the European Commission to the actual application of sanctions by the Council (March-January, or September-July). Finally, it should be noted that while the Treaty defines an excessive deficit in terms of deficit and the debt ratio, the Stability and Growth Pact, however, specifies sanctions only in case of the deficit ratio, but not in case of the debt ratio.

The sanctions themselves take the form of non-interest bearing deposit. First, there is so-called the initial deposit, which consists of two parts. The fixed component is 0.2% of GDP. The variable component in turn is equal to 0.1% of GDP for each percentage point that the government deficit is above the reference value of 3 per cent in the year that the deficit occurs. The upper limit for the annual deposit is 0.5% of GDP. The second form of sanctions consists of additional deposits. These must be made each year, until the deficit is corrected. The additional deposit is 0.1% of a country's GDP for each percentage point that the government deficit is above 3 per cent reference value. Finally, the deposit is converted into a fine when a member country has not made necessary corrections to its excessive deficit within two years.

The rules defining the sustainable fiscal position and particularly the exceptions related to excessive deficits provide some room for maneuver. If a country is considered having an exceptional budget deficit, then no sanctions will be imposed. According to the Pact, a deficit, which exceeds 3% of GDP, is considered 'exceptional' if a country's GDP declines by at least 2 percent in the year in question. Empirical evidence in the EU shows that during the period of 1961-97 such a situation was recorded in 7 cases out of 475 (Buti and Sapir, 1998).

A country may also claim exceptional circumstances if it suffers from a recession in which real GDP declines by less than 2 per cent but more than 0.75 per cent. In this case, however, the country must show that its recession was exceptional compared to the past output trends. Buti and Sapir (1998) indicate that in the EU area this type of situation was observed in 30 cases out of 475 in the period of 1961-97. The last way to claim that the deficit over 3% of GDP is exceptional refers to a situation, in which the deficit results from an annual event outside the control of the member country, but nevertheless has a substantial impact on the government's financial position.

An important question is then to what extent, if at all, the Maastricht rules have affected the current EU member countries and their fiscal policies.[8] The past performance indicates that before the adoption of the Maastricht rules, during 1970s and 1980s, the fiscal policies in EU countries did not follow the neo-classical theory of optimal tax smoothing. According to this principle, tax rates should be kept constant over the business cycle (Buti and Sapir, 1998). Thus, taxes are not raised when a country experiences an economic slowdown. Instead, deficits occur during recessions but are reversed during expansionary growth. Over the cycle, these cyclical fluctuations should even out.

Instead of following this traditional 'tax-smoothing' strategy, many EU countries during the 1970s and 1980s accumulated their budgetary imbalances in periods of favorable growth. In particular, the accumulation of government debt was fuelled by a persistent structural deficit of close to 3% of GDP. However, a clear regime change was observed in the 1990s.

The experience of EU countries shows that during the past decade the Maastricht budgetary rules have initiated a process of budgetary

[8] See, for example: European Commission. 2000. Public Finances in EMU-2000. European Economy. Number 3, 2000. Brussels: European Commission, Directorate-General for Financial and Economic Affairs.

consolidation in which EU member states started to streamline their institutional, accounting, and reporting procedures in order to comply with the Maastricht targets.[9] As government debts and budget deficits have shifted to a downward path, the budgetary adjustments have mainly involved significant reductions in primary government expenditures, and to a less extent tax increases. Moreover, expenditure reductions have taken the form of cuts in social expenditure and wages. This evidence suggests that the Maastricht rules and regulations for fiscal policy represent institutions that have succeeded in enforcing fiscal discipline among the EU members.

III. Fiscal Convergence in the Baltic States: *Past Performance and Future Perspectives*

For EU countries, the Maastricht rules have provided, if nothing more, at least an encouraging start to budgetary consolidation to correct the public finance imbalances, which existed at the beginning of 1990s in most EU member states. This raises an important question about the possible role that such fiscal institutions may play in the Central and Eastern European candidate countries. To shed some lights on this question, we next review the Baltic States' fiscal performance in the course of transition, measured against the Maastricht rules. This will be followed by an assessment on the suitability and effectiveness of the Maastricht fiscal criteria and the Stability and Growth Pact from the Baltic States' point of view. Finally, more detailed calculations about output gaps and cyclical sensitivity of the Baltic national budgets will be presented.

First, it should be noted that considerable data comparability problem still persists in the area of public finance, especially with respect to the definitions and the coverage of government deficits. This concerns not only the Baltic States but also the other candidate countries as well. The Commission's regular reports from last year indicate that there are few candidate countries that are able to provide fiscal data on

[9] See European Central Bank, (1999), Eijfinger and DeHaan (2000), and Buti and Sapir (1998).

The New European System of Accounts (ESA) basis. But the assessment is much more positive with respect to IMF Government Finance Statistics (GFS) accounting framework, as most countries closely approximate the GFS methodology.

Estonia's budgetary data is already compiled in accordance with ESA standards. In Latvia, calculation methods to a large extent correspond to ESA. In Lithuania, the process is yet to be completed. In all Baltic States fiscal data is based on the GFS methodology. At present, both Eurostat and the Directorate General for Economic and Financial Affairs are working together with the applicant countries to improve the quality of the government data and to harmonize them with EU requirements. [10]

Commission reports in turn rely on the data based upon the individual definitions used by each Baltic country. [11] Therefore, it is not strictly comparable, nor does it conform to the data definitions that will form part of fiscal criteria for the adoption of the euro, nor the future excessive deficit procedure. Given the data limitations outlined, we emphasize that our conclusions should be treated with caution and taken as indicative.

Tables 1-3 show the development of government balance, revenues

[10] The data and overall discussion in this section are based on the Baltic national statistics and Commission's reports on economic development in these countries. Data sources are provided in detail in Table 1.

[11] European Commission. Directorate General for Economic and Financial Affairs. European Economy, Supplement C. Economic Developments and Structural Reform in the Candidate Countries. Number 4. November 2000.
European Commission. 2000 Regular Reports From the Commission on Estonia's / Latvia's / Lithuania's Progress Towards Accession. 8 November 2000.
European Commission. ECFIN/441/00-EN. Enlargement Papers. Recent Fiscal Developments in the Candidate Countries. Number 2. August 2000.
http://www.ee/epbe
http://www.bank.lv
http://www.lbank.lt
http://www.ee/epbe/makromajandus/15.2.html.en
http://www.finmin.lt/engl/stdebten.htm
http://www.csb.lv/basic/basicid.htm

and expenditure in the Baltic States during the period of 1996-2000. Table 4 presents the real GDP growth rates in the respective period. Tables 1 and 4 include also the Commission's spring forecasts for 2001-2002 (published in April 2001) with respect to the budget balance and the real GDP growth rate in the Baltic States. Measured against the Maastricht criteria, a couple of preliminary observations can be made: First, during the past five years, Estonia and Latvia have been more successful in maintaining fiscal discipline than Lithuania. The average annual deficit ratios in Estonia and Latvia have not exceeded the Maastricht reference value of 3% of GDP, apart from 1999. In Lithuania, on the other hand, the average deficit ratio has been above the target four times out of five, during the period of 1996-2000.

Second, Table 4 indicates that the deficits in Estonia and Latvia in 1999, which exceed the Maastricht reference value, were associated with a negative real GDP growth rate in Estonia and an almost non-existent growth in Latvia during that same year. The drop in the real GDP growth rate in 1999 was more than 2 per cent for both countries. Moreover, the GDP growth rates were positive before 1999 and this trend continued in 2000, suggesting that the negative and modest growth rates registered in 1999 were temporary and exceptional in both countries.

As the economic growth picked up in 2000, the excessive deficits returned below the reference value of 3% of GDP both in Estonia and Latvia. However, the deficits registered in 1999 were not particularly close to the Maastricht reference value. Thus, the principles of closeness, temporariness and exceptionality were not observed simultaneously. Consequently, had Estonia and Latvia been members in the euro-zone, they probably could have not avoided fiscal sanctions.

The third observation is that Lithuania registered positive GDP growth rates in 1997 and 2000, and at the same time the government deficit would have qualified for the Maastricht target. The situation in 1999 was opposite as the budget deficit exceeded the reference value and the GDP growth rate was also negative. What is surprising is that in 1996 and 1998 Lithuania enjoyed a strong economic growth, while

at the same time, the government was running high budget deficits, which were not particularly close to the Maastricht targets. This implies that the deficits would have been considered excessive, and therefore had Lithuania been a euro-zone member, sanctions would have been initiated. The budget results of 1999 would probably have also led to sanctions, as the deficit was not close to the Maastricht reference value. This is so even though the deficit was associated with an exceptionally negative GDP growth rate.

Finally, Tables 1- 4 indicate that in all Baltic countries the direction of changes in deficits from one year to another has been the opposite of that in real GDP growth rates. In other words, when government deficits have dropped, the real GDP growth resumed, or when budget deficits increased, the real GDP growth rate dropped. [12]

The data shown in Tables 1-4 raise various questions. What type of budget strategies have the Baltic States followed? Have corrections in budget deficits been carried through changes on the expenditure-, or revenue side? What kind of future challenges exists for the Baltic fiscal policies? We discuss these questions below.

At present, all three Baltic States have introduced and are operating based on their domestic medium-term fiscal frameworks. In addition, each Baltic country has signed so-called Joint Assessment of Economic Policy Priorities with the European Commission. These Joint Assessments are based on the medium-term strategies and were designed to facilitate the rapid transition to a market economy by the candidate countries.

With respect to country-specific developments, Estonia has adopted substantial parts of the EMU acquis. Concerning fiscal policy, Estonian authorities have followed a prudent fiscal policy ever since the country gained its independence in 1991. The fiscal discipline is closely related to the fixed exchange rate system, the currency board arrangement, according to which direct financing of the government

[12] Regarding the effect of GDP growth on fiscal balance, see, among others, Pirttilä (2000).

by the central bank is prohibited by law.[13] In addition, the law requires a balanced budget. Estonian law does not, however, explicitly forbid privileged access of the public sector to financial institutions, but this has never taken place in practice.

The strict interpretation of a currency board means that a country's monetary authorities practice no independent monetary policy. In consequence, fiscal policy plays a vital role in macroeconomic stabilization. At the same time, the requirement of the balanced budget clearly ties fiscal authorities' hands for policy actions. Moreover, as the currency board arrangement implies that monetary conditions are procyclical, it is important that fiscal policy becomes counter-cyclical. [14] Despite the largely disciplined and successful fiscal policy in Estonia, a deteriorated fiscal situation was registered in 1999.

Among the causes for the deficit were large increases in pensions and wages. However, the main cause was the sharp decline in economic activity due to the Russian economic crisis, which broke in August 1998. Although the detailed analysis on the effects of the Russian financial crisis on the Baltic States is beyond the scope of our study, the main effects, however, are worth of mentioning here. Empirical evidence suggests that the crisis affected the Baltic economies more than expected.[15] Estonia, Latvia and Lithuania all sank into recession because Russia had always been a significant trading partner to them. In August 1998, Russia defaulted on its treasury bills, after which the Russian ruble collapsed.

Due to the decline in the Russian purchasing power as a result of the ruble devaluation and the weaknesses in the Russian economy overall, the economic growth resumed in the Baltic States and Baltic exports to Russia declined heavily. Industrial sales recorded declines

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[13] For a review of the currency board arrangement in Estonia, see Funke (1995).

[14] See Benneth (1994), Ghosh, et al. (1998), and Williamson (1995) for a review of related issues.

[15] For details, see Lauri (1999).

and the hardest hit industries included food, beverages and processing. As a result, unemployment rose and some Baltic banks, especially in Latvia, were hit hard because of their considerable investments in the Russian Treasury bill market. Finally, lower than expected economic growth in the Baltic countries led also to widening budget deficits, which in turn resulted in budget cuts. Again. Latvia was affected the worst. [16]

Regarding fiscal policy in Estonia, the difficult year of 1999 was followed by strict corrective measures, which have accelerated structural reforms and reduced the fiscal deficit. For example, the Estonian Parliament endorsed a billion kroon budget cut in June 1999. For 2000 the government planned a though budget with lower level of expenditures and the general budget deficit coming down to around 1 % of GDP. Last year's performance suggests good prospects for a further improvement in macroeconomic stability, with domestic demand, especially strong investment and private consumption becoming more dynamic and external conditions remaining favorable. In consequence, the Commission predicts that strong economic growth will result in a positive fiscal balance in 2001-2002.[17] The medium-term fiscal policy priorities in Estonia include achieving fiscal balance, mainly by cutting expenditure, lowering the tax burden, and maintaining the general government external debt level low.

These objectives require continued harmonization of the Estonian tax policy, implementation of key structural reforms, such as pension and health care reforms, improving personnel management as well as strengthening the control over public finances via budget process. Among the main risks, which may lower the revenue projections and increase expenditures, are lower than expected receipts from economically significant transit trade, especially concerning the lower oil tran-

[16] This will be more evident in Table 6, which reports the elasticity of budget balance with respect to output gap. The elasticity for Latvia in 1998 was 90 while for Estonia and Lithuania were 11 and 1.83, respectively, reflecting the impact of the crisis on output and budget.

[17] European Commission (2000b and 2001) and http://www.europa.eu.int

sit from Russia[18], and costs of proceeding with pensions and health sector reforms[19]. Since last year the progress in pension and health care reforms has been steady. However, any postponement would not be recommended, as Estonian population is declining and employment falling. Other budgetary challenges in Estonia are related to a need to improve the control over the expenditure and debt policy of local governments.

Like Estonia, Latvia also has adopted substantial parts of EMU acquis. In particular, Latvia's legislation is in line with that of the Union, prohibiting direct public sector financing by the central bank and privileged access of the public sector to financial institutions. During the years of 1996-2000, the government deficit exceeded only once the Maastricht reference value of 3% of GDP. The economic recession in the wake of the Russian crisis was followed by worsened fiscal situation in 1999. The adverse budgetary developments resulted from slower than expected growth of revenue, higher than expected expenditure on pensions and unemployment benefits, and wage increases granted at the end of 1998. In an attempt to limit the worsening fiscal situation, an additional budget was approved in the autumn 1999 calling for additional spending cuts and increases in tax rates. Moreover, the Latvian government decided to freeze state spending for June, July and August in 1999. As a result, the deficit ended up being smaller than expected, 4.0 % of GDP, yet still above the Maastricht reference value of 3% of GDP. In 2000, the Latvian economy recovered due to improved external demand and private consumption.

At the end of 1999 Latvia committed to fiscal consolidation on the basis of an IMF agreement. The agreement included tough fiscal measures, such as reduction of the consolidated budget deficit from about

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[18] Russia's GDP growth rate is estimated to halve this year, from 7.7% in 2000 to 3.6% in 2001. At the same time, Russia's energy export is likely to decrease, along with the world energy prices, particularly with respect to oil. For more about economic developments in Russia, see European Commission (2001).

[19] Concerning the pension reform in the Baltic States, see: Schiff, Hobdari,, Schimmelpfenning , and Zytek (2001).

4% of GDP in 1999 to 2% in 2000 and 1% in 2001. However, problems that occurred last year, mainly related to the failed attempts to reform the structure of public expenditure, suggest that Latvia may have difficulties in fulfilling the agreement's fiscal objectives. In consequence, the general government deficit last year was close to the 3% of GDP in 2000. Moreover, this and next year (2001-2002), the deficit is expected to remain higher than originally planned, but still below 3% of GDP.[20] In the near future, the fiscal policy aims at supporting economic growth and improving the efficiency of the public sector and tax administration.

The ultimate objective for Latvia is to return to near fiscal balance in the medium-term. One of the main challenges is the conflict between the use of special budgets and the aim of improving budgetary planning. A large amount of expenditures have been handled within the special budgets, i.e. extra-budgetary funds. Although these special budgets are presented together with the basic budget, spending ministries have nevertheless enjoyed a high budgetary autonomy and the disbursements of these extra funds have been separately monitored and controlled.

On the positive note, last year's budget started to provide the central government the ability to monitor some of the expenditure of these funds and this year the government intends to incorporate many special budgets into the basic budget. Finally, among the near-term fiscal policy objectives measures are achieving tight spending limits, broadening of the tax base, clarifying the tax benefits, and getting higher tax revenues due to recovery in growth. However, like in Estonia, the ongoing pension reform is likely to put upward pressure on fiscal expenditures in Latvia.

Following its Baltic neighbors, Lithuania also has finished most of the work concerning the compliance with the EMU acquis. Regarding public finance issues, the Lithuanian legislation prohibits privileged access of the public sector to financial institutions. However, while

[20] European Commission (2000b) and http://www.europa.eu.int (2001).

Lithuania's central bank has mainly followed the practice of not financing the public sector directly, legislation guaranteeing the prohibition of direct public sector financing by the central bank must still be adopted.

Table 1 suggests that during the years of 1996-2000, general government deficit in Lithuania has fulfilled the Maastricht criteria only once in 1997. Although Lithuania followed Estonia and adopted the currency board arrangement in 1994, its fiscal policy seems to have been less tight than that in Estonia.[21] After the good fiscal year of 1997, the deteriorating fiscal performance has reflected in particular the effects of the Russian economic crisis. Increase in public wages, compensations for households for lost savings during hyperinflation as well as support for enterprises affected by the Russian crisis were among the reasons for higher expenditures. However, since the crisis program introduced in November 1999, various expenditures were frozen, services and subsidies were reduced, payments were postponed and public investments were cut back. In consequence, the 2000 budget foresaw the general government deficit below the Maastricht 3% target value, i.e. 2.8% of GDP. In addition to the crisis program, economic growth last year, which was stimulated by stronger external demand, also contributed to the improved fiscal position after 1999.

For the next two years, the public sector finance is expected to improve, provided that the government will continue following a strict fiscal policy. Against the assumption that the Lithuanian government would follow tight fiscal policy and proceed with reforms, the Commission predicts that the deficit would drop close to 2% of GDP in 2001 and to 1.4% of GDP in 2002.[22] Lithuanian government itself has set fiscal policy objectives, such as improvements in revenue collection and expenditure management as well as rationalizing the use of expenditures.

[21] Camard (1996) and Dubauskas (1996) review monetary and exchange rate policy in Lithuania.

[22] European Commission (2000b) and http://www.europa.eu.int (2001).

This year the government aims at near balanced budget, which should be reached by reducing expenditures for public sector wages, investment, purchases, and by providing lower subsidies and transfers to extra-budgetary funds. Moreover, payments arrears will be cleared, while some excise taxes will be raised. These budgetary targets are also expected to get support from a continued export growth and recovery in domestic demand. Overall, with the adoption of new budgetary legislation, the modernization of budgetary structures and management of public expenditure has started, including cuts to a number of extra-budgetary funds and incorporating them to the main budget.

The other fiscal criteria for sustainable fiscal position according to the Maastricht convergence criteria requires that the gross government debt should not be higher than 60% of GDP. With respect to the Baltic States, the data on gross government debt ratios is inadequate but based on the information available, the Baltic economies show modest debt ratios compared to the current EU members.

In Estonia, the level of indebtedness of the government has traditionally been very low. This has also contributed to the continuing confidence in the sustainability of the currency board system and thereby fixed exchange rate. Even after the difficult year of 1999, the debt of the general government sector ended amounting only to about 5% of GDP. With respect to components of the government debt, domestic debt has remained very small and the government's policy towards external borrowing has mainly focused on longer term foreign financing from multilateral investment agencies to fund investment projects.

Latvia has experienced growing indebtedness over the past years. However, compared to the Maastricht target value, the debt level has remained low. At the end of 1999, the gross government debt amounted only to 14% of GDP. The growing indebtedness has mainly been due to the higher financing requirement resulting from fiscal deficits, investment projects, loans granted to budgets of other levels and due to the need to maintain financial liquidity. With respect to the contents of the debt, the share of domestic debt is expected to rise in the medium-

run. Naturally, growing indebtedness leads to higher debt servicing costs. However, for the time being, Latvian authorities believe that this will not pose problems to future fiscal policy. The country is committed to continue fiscal consolidation. In addition, although the privatization is coming to an end, revenues from it will continue to play a significant role in terms of financing the budget.

In Lithuania, high government deficits have resulted in a rise of the government debt and compared to Estonia and Latvia, Lithuania has reported higher debt ratios. At the end of 1999, when also the government deficit was very high, the gross government debt amounted to 28% of GDP. Of this, majority, about 78%, consisted of gross foreign liabilities. Naturally, as the debt level rises, the close monitoring of the contents of the capital flows becomes ever more important. However, it should be noted that despite the rising debt ratio in Lithuania, the level is still far below the Maastricht ceiling of 60% of GDP.

A recent paper published by the EU Commission on the enlargement issue supports our review of the past fiscal performance in the Baltic States.[23] Among others, this study concludes that at the beginning of transition, i.e. at the beginning of 1990s, some deterioration of state finances was inevitable, because there were many upward pressures on public expenditure and there was no effective tax collection system in place. Nevertheless, public debts remained very low or were non-existent because the governments were limited to borrow by their low creditworthiness. Towards the end of 1990s, in most of the Central and Eastern European candidate countries' public debt was below 40 per cent of GDP, including the Baltic States. In addition, by 1999, most of these countries also registered general government deficits close to zero or within the range of 3-4 per cent of GDP, with the exception of Lithuania, which still had a deficit of 7 per cent.

Finally, regarding the recent developments in fiscal policy planning, this year (2001), the Directorate General for Economic and Financial Affairs (DG ECFIN) has launched its pre-accession fiscal

[23] The European Commission (June 2001).

surveillance mechanism for candidate countries. It consists of two elements: an annual debt and deficit notification, and the preparation by the applicant countries of a Pre-accession Economic Program (PEP). The first such notification was submitted by the candidate countries at the beginning of April. The Pre-accession Economic Programs in turn will be submitted during the 2001, and they will also be updated annually.[24] DG ECFIN will provide an opinion on each PEP in a same way as it does for the Convergence and Stability Programs the current member states were obliged to prepare in 1998 and which have been updated every year since then. The PEPs aim at providing a possibility for a candidate country to outline the economic policies and develop the analytical and technical requirements for participation of EMU and eventually the adoption of the euro. Most importantly, the PEPs are especially focused on public finance issues. All in all, the establishment of fiscal surveillance mechanism for the eastern candidate countries shows that the fiscal convergence as a part of the Maastricht criteria for the euro is increasing in importance.

IV. Suitability and Effectiveness of the Maastricht Criteria and the Stability and Growth Pact

The analysis concerning the suitability and effectiveness of the Maastricht criteria and the Stability and Growth Pact from the Baltic States viewpoint to some extent follows the general discussion about benefits and weaknesses of such fiscal rules. We shall analyze whether such fiscal institutions are useful for the Baltic States and, if so, how the stage of transition affects the suitability of such rules.

To begin with, it could be argued that numerical targets for fiscal policy, like the Maastricht ones, are suitable fiscal institutions for the Baltic States, because they are very operational and easy to monitor. This applies irrespective of whether the Baltic States are considered as EU members or they are still in the accession stage. From integration

[24] Estonia and Latvia had to submit their programs by May 1, 2001 and Lithuania will hand in its program by October 1, 2001.

point of view, the Maastricht criteria could also be viewed effective institutions, because it clearly shows the stage of integration and convergence, i.e. the gap that still has to be closed before a sound public finance equilibrium and thereby the ability to join the euro-zone is reached.

The procedural targets incorporated into the Maastricht criteria can also be considered useful, since they assist candidate countries in harmonizing their accounting frameworks for computing public finance variables and in adapting national procedures to the requirements of budgetary discipline. All that promotes the overall integration process. Numerical fiscal targets, however, can lead to fiscal adjustment that may be achieved through non-sustainable policies.[25] A narrow focus on a certain reference value may encourage a country to introduce one-time cosmetic accounting measures to meet a deficit and debt target. At first hand, this would cause a loss of information about the government's real budgetary and financial situation. But more importantly, in the Baltic type of transitional countries, it could also reflect a postponement of vital structural reforms. Indeed, when evaluating the suitability and effectiveness of the Maastricht fiscal criteria and the Stability and Growth Pact as fiscal institutions, one must realize that transition countries are still young democracies and have lower living standards than the current EU members.

The Baltic States, like the other candidate countries, are yet neither ready EU members nor ready market economies, but they are in the middle of accession preparations. As a result, the fiscal convergence is being affected by the ongoing transition and accession preparations. Both processes tend to put upward pressures on public expenditures, as various structural reforms should take place. Such reforms range from restructuring the financial and public sectors and significant industries, investment in public transport and environmental infrastructure, to the

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[25] Concerning examples of opportunistic budgetary and accounting behaviors of governments to meet the Maastricht deficit and debt criteria, see The International Bank for Reconstruction and Development and The World Bank (1999).

creation of public institutions for the implementation of the Community legislation, acquis.[26]

Both transition and accession also tend to put pressure on political decision-makers, not only because of their tendency to increase public costs but also because they often tend to show results only in the long run. As a result, it is hardly surprising to see that such planned measures are postponed, at least till next elections. Thus, if the Maastricht type of fiscal rules encourages a country to take quick-fix measures at the expense of structural ones, they naturally are neither suitable nor effective fiscal institutions for any country.

With respect to the Baltic States, the structural reforms have been proceeding and that there is not clear evidence on “cosmetic accounting measures” instead of actual budgetary results being the major determinant of the budget numbers. The view is confirmed by the Commission’s progress reports on the Baltic States, although they also register slower progress at some points in time. However, the past experience not only in the Baltic States but also in the EU countries suggests that fiscal consolidation and structural reform can easily become competing policies, rather than complementary and mutually reinforcing. In addition, like so many other countries, the Baltic States continue facing the temptation to postpone politically challenging structural reforms, especially in the wake of elections.

Among the positive arguments for the Maastricht type of fiscal criteria is that without any targets for budgetary policy, governments may have less fiscal discipline. If, for example, public debt is on an unsustainable course, it may threaten price stability, as a high level of government debt may increase inflationary expectations. Moreover, fiscal institutions like the Maastricht rules can protect governments against deficit bias, which may exist due to inefficient political decision-making.

[26] In addition to the Commission Regular Reports, see also the discussions in IMF(2000) and Pirttilä (2000).

The review of the Baltic fiscal performance presented in the previous section has indicated that for the many years all Baltic countries have had much lower government debt levels compared to, for example, the Maastricht reference value of 60% of GDP. In addition, although inflation in the Baltic States has been clearly higher than in the EU, no serious loss of control over inflation has taken place during the past five years of transition and accession preparations. On the contrary, Table 5 shows that during 1996-2000 annual average inflation has systematically been coming down in each Baltic State. Thus, while government deficits in the Baltic countries have been sometimes much higher than what the Maastricht rules would have allowed, the available data suggest that none of the Baltic States has suffered from public debt on an unsustainable course. Against this background, the Maastricht rules could serve as tools of fiscal discipline, but perhaps more in terms of controlling government deficits, rather than public debt.

One of the arguments against the Maastricht type of fiscal rules is their arbitrariness, such as why the deficit is restricted to 3% of GDP, instead of, for example, 4% or 5% of GDP. Similarly, why is public debt limited to 60% of GDP? One can argue that the sustainability of fiscal policy may differ across countries. This is an important issue especially in the case of transition economies like the Baltic States. As already mentioned, transition and accession preparations put upward pressure on fiscal expenditure. At the same time, countries with higher real GDP growth rates can afford higher deficit/debt per GDP (ceteris paribus). At present, this indeed concerns the Baltic States, as in the next two years they are expected to grow faster than the EU.[27] In consequence, the Baltic States could also run higher deficits and debt ratios, provided that the higher rates would be associated with real progress in structural reforms. This finding suggests that for the time being the Baltic States should not target their budget policies solely on fulfilling the Maastricht fiscal targets. However, as far as policies implemented within the EU are concerned, applying different rules for

27 www:europa.eu.int. (2000), www.ecb.org, and European Commission (2000a).

different countries would never be politically possible or acceptable. Only transitional arrangements could and sometimes have been used.

Another critical factor is that a process of fiscal adjustment concentrating purely on deficit and debt reduction might lead, for example, to a situation in which policymakers pursuing a balanced budget or some deficit or debt target may favor off budget forms of government support. This type of financing does not necessarily require cash in the short term, thereby hiding the true cost of underlying state support. In general, it is important to shift from a simple budget cost approach to a more comprehensive total cost approach.[28] This implies accounting directly for contingent liabilities.

The financial sector offers a traditional example of the source of implicit contingent liabilities with governments intervening to protect depositors and supporting banks that are argued to be too significant to fail. The banking crisis in the Baltic States in 1995 provides a good example for this. In addition to taking into account both the explicit and implicit contingent liabilities as a whole, fiscal policymakers should also control different types of contingent liabilities. These include monitoring financial deficits of state owned enterprises and sub-national finances. A total cost approach also requires that fiscal policymakers take into account the prevailing overall macroeconomic conditions in order to maintain macroeconomic flexibility and credibility.

Concerning the Stability and Growth Pact in particular a positive argument is that rules apply to fiscal policy outcomes, instead of policy intentions. Among the weaknesses is that sanctions do not ease the actual problem. This means that sanctions do not directly lower deficits or debts. Sanctions in the form of deposits raise a country's debt ratio, leaving deficit untouched. The most severe penalties, fines, in turn result in an increase both in the government deficit and debt. As a result, a country may end up in a much worse economic situation than before the sanctions. Another point related to the Pact is that sanc-

[28] International Bank for Reconstruction and Development and The World Bank (1999).

tions are imposed only in terms of government deficit. But no sanctions or any other measures follow when a country breaks the 60% of GDP debt criterion. However, at present, this finding would not really play a very important role in the Baltic States where public debt ratios still remain well below the critical value of 60% of GDP.

Above discussion suggests that from the Baltic perspective such rules seem to work better as fiscal goals for the longer-run rather than as today's policy goals. Thus, while strictly defined fiscal targets provide clear guidelines and clear targets for a country to aim at, it is exactly the ongoing transition and accession preparations that make such rules not the most optimal for the time being. Some recent empirical evidence on the integration of economic activity between euro area and the accession countries also supports this view. Korhonen (2001) concludes that joining the monetary union could result in significant costs, unless candidate countries' short-term business cycles converge closer to the euro area cycle. Concerning the Baltic States in particular, the same study indicates that while Estonia is more integrated with the euro area than the other two Baltic economies, the overall correlation of all Baltic business cycles with the euro area cycle is yet low.[29] A similar finding is also reported by Brada and Kutan (2001). In studying the convergence of monetary policy between candidate countries and the European Union, they report that Estonia's economic policy is more linked with the European Union than Latvia.

Regarding the effectiveness of the Maastricht fiscal, there are specific issues especially associated with a situation where the Baltic States have already become EU members. From the Baltic States' as well as other current or future member countries' point of view, it is probably encouraging that neither noncompliance with the Maastricht convergence criteria on fiscal policy, nor the imposition of the sanctions due to an excessive deficit leads to the exclusion of the country from the EU. Clearly, already for political reasons, taking away EU

[29] See Korhonen (2001): p. 15-16.

membership privilege is not an option. This is so even though one may argue that institutions, the Maastricht or any other kind, are not effective to structure fiscal policy unless they make countries actually to obey the rules.

While exclusion from the EU is “unrealistic”, costs of not following the fiscal rules and regulations should nevertheless be high enough in order to ensure that countries follow these rules. This raises the issue of how to measure such high costs. First, fiscal consolidation is an ongoing process that requires continuous reactions. Second, fiscal consolidation is also a country-specific process. Since, both the current member countries in the EU as well as the eastern candidate countries differ from one another there are hardly a single definition for “high enough costs”. Instead, it will always depend on the particular country in question and the economic and political situation in that country at a specific point of time. As a result, there is no absolute guarantee about the full compliance and enforcement of fiscal rules and procedures, whether by current or new member states. Instead the commitment, and therefore the effectiveness of such fiscal institutions, will continue be affected by economic and political circumstances in a country at the time of evaluation.

One of the interesting points related to the Maastricht fiscal institutions is that the Treaty does not include a bailout clause, in case some member states do not show enough fiscal discipline. Thus an important issue is what happens if the Baltic governments, after becoming members, start borrowing more and more. After all, they may find it easier to borrow more as the Euroland capital market is bigger than the Baltic one and also because borrowing can be done without any exchange rate risk. Many would argue that despite the absence of the bailout clause in the Maastricht Treaty, other EU members are likely to assist a country with serious trouble, as negative effects could otherwise spread over to the rest of them as well. At the same time, it should be remembered that the effects of one country’s unsustainable national fiscal policy on other member countries would, at least to some degree,

depend on the size of the country concerned.[30] In this respect, the Baltic States are of the complete different category than, for example heavyweights like Germany, UK, Italy or France. It could be assumed that with no bailout in EMU, heavy borrowers would still most likely face higher interest payments, providing incentives for a restrained fiscal policy.

Finally, one of the traditional arguments against fiscal institutions like the Maastricht rules, including the Stability and Growth Pact, is that they limit a country's ability to use fiscal policy to counteract recessions, which may affect one member country more than another. After all, freedom to use national fiscal policy is the measure most needed in the monetary union, where the monetary policy is concentrated at the ECB and determined more by economic developments in bigger member countries than smaller ones. The extent to which fiscal policy should provide room to act depends on the country concerned. The Stability and Growth Pact may actually be suitable and effective institution after all, if it provides enough room for stabilization purposes. One way to answer this question is to evaluate the past cyclical sensitivity of a country's budget to economic activity. The next section examines this issue and other related issues.

V. Output Gap Measures and the Cyclical Sensitivity of the Baltic National Budgets: Empirical Evidence

In this section, we study the link between budget balance and the output gap in the Baltic States to investigate the behavior of the budget over different phases of the output cycles. There are several empirical methods to measure the output cycles.[31] According to Morrow and

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[30] See von Hagen (1992).

[31] There are two commonly used procedures: Statistical trend estimation methods and production function approach. The former includes the Hodrick-Prescott filter, band pass filter, linear time trend, Kalman filter, and other univariate and multivariate time series methods. A detailed examination and comparison of these methods can be found in Morrow and Roeger (2001). All these procedures decompose output into trend and cycle components. Because they are not directly observable, it is hard to assess the quality of any resultant estimates of the trend and cycle components.

Roeger (2001, p.6), "all the available methods have 'pros' and 'cons' and none can unequivocally be declared better than the alternatives in all cases. Thus, what matters is to have a method adapted to the problem under analysis, with well defined limits and, in international comparisons, one that deals identically with all countries." Following the European Commission, we employ the Hodrick-Presscott (H-P) trend estimation method in this paper.

The H-P method is effectively equivalent to applying a moving average filter to a measure of output. This produces a smooth trend with symmetric output gaps, which sum to zero over the cycle. The estimated trend GDP or output merely measures the average GDP level.[32] The H-P filter is obtained through a minimization method. Regular fluctuations in output around trend are minimized subject to a constraint on the variation of the trend output growth rate. The Lagrange multiplier (?) in the minimization problem is called the smoothing parameter. When ? is set to zero, the trend and actual output are equal. Thus, a larger (smaller) ? implies longer (shorter) cycles and bigger (smaller) output gaps. Because setting a value for the smoothing parameter ? is arbitrary, but it is quite important, we follow the suggestion of Hodrick and Presscott (1980) to set a value for ?, which is the standard practice in the literature.[33] .

A potential drawback of the H-P method is the "end-point bias" problem. This arises with symmetric filters, because the data has a finite sample and thus the theoretically infinite moving average filter must be truncated at a finite lag. In this case, the filter weights can become asymmetric close to the end points. Baxter and King (1985) show that this problem occurs especially for the last 3 to 4 observations and causes the length of the cycles to be underestimated close to these observations. To correct for this problem, they suggest extending the data set by adding output forecasts over a range of 3 to 4 years.

[32] The terms "output gap" and "GDP gap" are used interchangeably in this and following sections.

[33] They suggest setting ? = 100 and 1600 for annual and quarterly data, respectively. The Commission also follows their suggestion in its cyclical adjustment method.

Morrow and Roeger (2001) investigate the qualitative significance of this bias by comparing the Commission's estimate of the GDP gap for all EU member countries with a GDP gap constructed using the standard H-P procedure without expanding the GDP series with forecasts. Based on some sensitivity calculations, they conclude that the size of the bias for all EU countries seems small and thus should not affect findings qualitatively. Given their finding and the potential forecast bias associated with extending output series are not produced in this paper.

To compute measures of the output gap, we use quarterly real GDP data.[34] The data is available from 1993: I to 2000: III, except for Lithuania, which starts from 1995:I. The original real GDP data is seasonally adjusted using the multiplicative method. Figure 1 plots the real GDP data for all three countries. Figure 1 confirms the earlier observations based on Table 4. Namely, that there is a significant drop in real output following the Russian crisis in August 1998.

Using the H-P - method, output gaps are constructed. The gap is defined as the difference between the actual GDP minus the trend GDP and expressed, following earlier studies, as a ratio with respect to the trend GDP. They are given in Figures 2-4. The output gap figures indicate a similar pattern across the Baltic countries. In the earlier years of the transition, there is a negative output gap for all the countries. As expected, over time the negative output gap shrinks and turns into a positive value. However, due to the Russian crisis in late 1998, the output gap becomes negative again in 1999. Estonia and Latvia appear to have recovered quickly from the crisis, as the negative output gap declines first and then becomes positive again during 2000. Although there are signs of recovery for Lithuania initially, the output gap stays still negative during 1999-2000. Note that Latvia has relatively smaller output gap than Estonia and Lithuania. The GDP gap ranges around

[34] Given our short annual sample period, we have decided to use quarterly data in order to better capture the cyclical components of the output. Real GDP data are based on 1995 prices and expressed in domestic currency. The data is obtained from the IMF's International Financial Statistics, (line number: 99B.P), March 2001 CD ROM version.

plus/minus 4 percent of the trend GDP for Latvia, and plus/minus 6 percent of the trend GDP for Estonia and Lithuania.

We next examine the link between actual budget balance and the output gap to provide empirical evidence about whether the Baltic States have followed fiscal discipline. The budget balance is simply the difference between the revenues and expenditures. The quarterly data on revenues and expenditures are available except for Lithuania. For the latter, we work with annual data.[35] The following definitions are used for the output gaps: a strongly negative output gap is more than –2% of trend GDP, a moderately negative output gap ranges from 0% to –2% of trend GDP, a moderately positive output gap is between 0% and 2% of trend GDP, and a strongly positive output gap is more than 2% of trend GDP. We are now ready to examine whether and to what extent the Baltic States have followed the neoclassical theory of tax smoothing during different phases of business cycles. Figures 5-7 plot the output gap and budget balance together to evaluate this issue.

Figure 5 provides evidence for Estonia. From 1996 to the first quarter of 1997, the output gap ranges from a moderately negative 1% of trend GDP to a strongly negative of 3.5 % of trend GDP. At the same time, the budget deficit registered in the first quarter of 1996 switches to a surplus in the second quarter. The surplus declines in the course of the year and the budget balance becomes negative again in the first quarter of 1997.

During the periods of economic slowdown, we observe periods of both deficit and surplus, suggesting that there is no clear evidence on tax smoothing behavior. When the output gap is positive starting from 1997:II through 1998:IV and ranging from a moderate to strong, from about 0.5 to 5.5 percent, the budget balance again shows some cycli-

[35] The quarterly revenue and expenditures data are available from 1995:I to 2000:III for Latvia and from 1996:I to 2000:III for Estonia. The annual data for Lithuania runs from 1995 to 2000. The data are taken from the IMF's International Financial Statistics, (line numbers: 81 and 82, respectively), March 2001 CD ROM version, except Estonia, which is generously provided by the Estonian Central Bank.

cal behavior. It is positive for four quarters, but shows deficit when the positive output gap has dropped. During the period from 1999:II and 2000:I, the negative output gap is associated with budget deficits. Later, during 2000:II and III, when the moderately negative output gap becomes moderately positive, also the budget turns into surplus. Overall, Figure 5 suggests that Estonia has showed fiscal discipline and also to some degree followed the tax smoothing principle.

Turning to results for Latvia in Figure 6, we observe strong to moderate positive output gaps during the first three quarters of 1996, ranging from 1.7 to 4.4% of the trend GDP. The positive output gaps are combined with budget deficits. Then from the fourth quarter of 1996 till the end of 1997 the output gap is moderately negative, while the budget is in surplus. During 1998, the output gap ranges from moderately positive 1.7% to strongly negative of 2.1% of the trend GDP, while the budget shows surplus in the first three quarters, turning then into a deficit towards the end of the year. During 1999, there is a moderate to strong negative output gaps together with budget deficits. Moreover, in 2000, the output gap improves to a moderately positive level, while the budget balance improves, although still remaining negative. All in all, the results for Latvia reflect some degree of tax smoothing behavior and fiscal discipline throughout the sample period.

For Lithuania, we are restricted to annual data. Figure 7 shows that the first two years of 1995 and 1996 are associated with moderately negative output gaps of about 1.5 percent of the trend GDP and a budget deficit. However, during the next two years, while the output gap ranges from a moderate to strongly positive level, the budget deficit nevertheless continues to increase. During 1999 and 2000, there are again budget deficits along with strong to moderately negative output gaps. These results also indicate that Lithuania has shown some signs of tax smoothing strategy during the sample period.

A key question is what the budget balance would be if economic activity were at its trend level. In particular, what the average budget

deficit to GDP would be in a Baltic State when it was operating at its trend level, i.e. when the output gap was 0% of the trend GDP. Would it be below the Maastricht ceiling of 3% of GDP? Figures 8-10 indicate that when the output gap has been 0% of the trend GDP, the budget deficits have remained within the Maastricht target in Estonia and Latvia, but been much higher in Lithuania. This finding suggests that if the Baltic countries commit to the medium term objective of keeping their budgets in balance, the Stability and Growth Pact would offer a significant room for automatic fiscal stabilizers to function in Estonia and Latvia, but not necessarily in Lithuania. Thus, given past fiscal and growth performance in the Baltic States, the Stability and Growth Pact would seem to be a less useful and suitable fiscal institution to Lithuania than to Estonia or Latvia.

In consistent with the European Commission's approach, we also report some elasticity measures for the budget balance. Table 6 reports the responsiveness of budget balance to a 1 percent change in output gap. The tax-smoothing hypothesis requires that the elasticity should be positive, indicating that negative (positive) output shocks are associated with declines (improvements) in the budget balance. The elasticity figures for 1997 show evidence of tax smoothing hypothesis for all countries, as the elasticity is positive. The unit elasticity for Estonia indicates that this country had the highest fiscal discipline, reflecting its balanced nature of the budget. Due to the Asian crisis in 1998 and its potential spillover effects to next budget year, the elasticity measures are quite large and negative for Estonia and Latvia in 1999 and for Lithuania in 1998. Latvia seems to be affected the most from the Asian crisis and other events, especially in 1998, as the elasticity measures is extraordinarily high, due to an unprecedented decline in the budget surplus and a very small increase in output gap that year. It appears that all countries were able to regain control over their fiscal policy by 2000 as indicated by the positive elasticity measures reported in Table 6. Again Estonia stands out as the most disciplined country.

To summarize, empirical evidence indicates that Estonia and Latvia have practiced more disciplined fiscal policy than Lithuania.

Second, our findings suggest that if the Baltic countries would commit to the medium term objective of keeping their budgets in balance, the Stability and Growth Pact could offer a room for automatic fiscal stabilizers to function in Estonia and Latvia, but not necessarily in Lithuania. Thus, given past fiscal performances and cyclical sensitivity, the Stability and Growth Pact would seem to be less suitable fiscal institution to Lithuania than to Estonia or Latvia.

To complete our study, we next report the results for the impulse response functions and variance decompositions. Among others, these calculations give some indication on the strength and sources of shocks affecting the budget, thereby also providing some guidance for future policy making. The impulse response functions measure the effect of a one standard deviation of an output gap shock on current and future budget balance. They trace the effects of a shock to an endogenous variable on the variables in a vector autoregression (VAR) model. By contrast, the variance decompositions give information about the relative importance of each random innovation to the variables in the VAR. In our case, we like to know the effect of an output gap shock on budget balance and also how much of the changes in budget balance stem from the output gap and its own shocks.

With respect to Estonia, impulse responses calculations reported in Figure 11 indicate that in the course of one year, the budget balance improves in the first quarter but the impact of a shock in output gap dies very quickly after the first two quarters. [36] There seems to be no lasting impact of output shocks on budget balance. This is confirmed by estimates concerning variance decompositions as reported in Table 7. Over a 12-quarter period, 17 percent of variation in budget balance is due to its own shocks and output gap shocks explain 83 percent of movements in the budget balance, suggesting that budget changes are dominated by output shocks. On the other hand, output gap shocks are mainly driven by own shocks, because budget shocks contribute only 8 percent to the variations in output gap. Overall, the variance decom-

[36] In all estimations we used a lag length of one.

position results indicate that there is one-way causality between output shocks and changes in budget balance, running from output shocks to the budget. [37]

The above results suggest the impact of output-originated shocks or any other shocks must be handled with such a manner that the balanced budget is eventually achieved. This also means that as long as Estonia has the current system in place and fiscal discipline is followed, there is less need to adopt fiscal institutions such as the Maastricht deficit and debt criteria to boost such fiscal discipline. At the same time, since the effect of output shocks on the budget balance does not last long (Figure 11), a fiscal institution such as the Stability and growth Pact would provide enough room for automatic stabilizers to function.

Concerning Latvia, the variance decomposition estimations reported in Table 7 suggest that the causality also runs from output gap to budget changes than vice versa. While 53 percent of changes in budget balance are explained by output gap shocks, budget shocks explain only 2 percent of movements in output gap. Note that output shocks contribute to the variations in budget balance much stronger in Estonia (83 percent) than in Latvia (53 percent).

Figure 12 shows the impulse response function of the budget balance to one standard innovation in output gap. We observe that in the course of one year, due to an output shock, budget surplus declines and its impact dies after 4 quarters. This result is somewhat similar to that in Estonia, although output gap shocks do not seem to have a longer effect on the budget in Latvia. This could mean that in Estonia a fiscal institution such as the Stability and Growth Pact would relatively provide more sufficient room for automatic stabilizers to function than in the case of Latvia. [38]

[37] It is well known that the variance decompositions provide information regarding the "out-of-sample" causal structure of the systems (see Hafer and Kutan, 2001; Hamilton, 1994; and Lütkepohl and Reimers, 1992). Therefore, we do not report F-statistics that provide "in-sample" evidence.

[38] Regarding Lithuania, as quarterly fiscal data was limited, there were not enough observations to complete impulse responses and variance decomposition estimations.

VI. Policy Implications and Conclusions

Budgetary institutions are important determinants of fiscal performance. Perhaps among the strongest empirical examples of fiscal institutions are the Maastricht fiscal rules based on the Treaty of Amsterdam, and the Stability and Growth Pact. These rules provide countries in the EU, and in particular those, which have adopted the euro, with a common code of fiscal conduct. This code of conduct consists of reference values for deficit and debt, a common accounting framework for computing public finance variables and a call to adapt national procedures to the requirements of budgetary discipline.

The empirical evidence shows that in the course of the 1990s, the Maastricht rules have initiated a process of fiscal consolidation and contributed to the fiscal discipline in the EU member states. Against this background, this paper has examined to what extent such fiscal institutions could be useful to the Baltic States, given the past fiscal performance in these countries and their current aspirations to become EU members. The considerable problems still exist when analyzing the Baltic fiscal data. This has been acknowledged in the study and therefore all conclusions presented here should be taken as indicative and interpreted with caution.

With respect to fiscal history in the Baltic States, the study has examined years during the period from 1996 to 2000. During the period in question, Estonia and Latvia have been more successful in maintaining fiscal discipline than Lithuania. The average annual budget deficits in Estonia and Latvia have not exceeded the Maastricht reference value of 3% of GDP, apart from 1999. In Lithuania, on the other hand, the average deficit ratio has been above the target four times out of five in the respective period.

Concerning gross government debt to GDP, all Baltic countries have reported much lower debt levels than the Maastricht reference value of 60% of GDP. The past fiscal performance also indicates that all three Baltic States have followed, to some degree, the traditional tax smoothing strategy, i.e. accumulated deficits during recessions and

reported surpluses during the periods of economic growth. However, to a larger extent in Lithuania, and to some extent in Estonia and Latvia, there is evidence on periods during which the Baltic governments ran budget deficits, although the economy was growing.

With respect to suitability and effectiveness of the Maastricht type of fiscal institutions, there are both arguments for and against. Numerical targets for fiscal policy, like the Maastricht ones, can be suitable fiscal institutions for the Baltic States, because they are very operational and easy to monitor. Moreover, from integration point of view, the Maastricht criteria could also be considered effective institutions, because they show clearly the stage of integration and convergence. Another positive argument for the Maastricht type of fiscal institutions is that without any targets for budgetary policy, governments may behave with less fiscal discipline. Such rules can protect governments against deficit bias, which may exist due to inefficient political decision-making.

On the negative note, numerical fiscal targets can encourage a country to take quick-fix measures at the expense of structural ones. Moreover, like so many other countries, the Baltic States continue facing the temptation to delay politically challenging structural reforms, especially in the wake of elections. The Maastricht rules have also been criticized for being arbitrary and it is therefore argued that the reference values may not be useful for countries that grow much faster than the EU on average. In consequence, since the Baltic States are expected to grow faster than the EU in the future, they could also run higher deficits and debt ratios, provided that these higher rates are associated with real progress in structural reforms.

There is also a set of issues added to the discussion on the suitability and effectiveness of fiscal rules once a country has become a EU member. One characteristic related to the Maastricht rules is that they do not include a provision according to which a country would loose its EU membership due to noncompliance. There is therefore no absolute guarantee about the full compliance and enforcement of fiscal

rules and procedures, whether by current or new member states. Instead the commitment will continue to depend on particular circumstances in a country at the time of evaluation.

Concerning the Stability and Growth Pact in particular, one positive argument is that rules apply to fiscal policy outcomes, instead of policy intentions. However, sanctions do not necessarily eliminate the actual problem. One of the traditional arguments against fiscal institutions is policymakers lose their ability to use fiscal policy to counteract recessions. However, a fiscal institution, such as the Stability and Growth Pact, may not actually be suitable and effective institution if it does not provide sufficient room for stabilization purposes.

The empirical evidence on the cyclical sensitivity of the Baltic budgets has provided mixed results. They have suggested that if the Baltic countries commit to the medium term objective of keeping their budgets in balance, the Stability and Growth Pact would offer enough room for automatic fiscal stabilizers to function in Estonia and Latvia, but not necessarily in Lithuania. Given the "pros" and "cons" of fiscal institutions discussed in this essay, we conclude that the Maastricht fiscal targets do represent good policy goals for the Baltic States, but rather from a longer run perspective than today's policy making.

Finally, with respect to future perspectives, all Baltic economies are currently making structural reforms in the fiscal arena, including the adoption of new budgetary legislation, the modernization of budgetary structures, and improving the management of public expenditure. As the Baltic countries proceed with fiscal reforms and convergence, it is suggested that fiscal analysis and management in these countries focus not only on traditional government budget and debt but also includes contingent and implicit liabilities as well.

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Table 1: Government Balance in the Baltic States, % of GDP[1]

	1996	1997	1998	1999	2000	2001	2002
Estonia[2]	-1.9	2.2	-0.3	-4.7	-0.7	0.1	0.0
Latvia[3]	-1.7	0.1	-0.8	-4.0	-2.8	-1.9	-1.1
Lithuania[4]	-4.5	-1.8	-5.8	-5.7	-3.2	-1.8	-1.4

Source: European Commission.

1 With respect to national definitions for government balance, see: European Commission. (2000a and 2000c), and http://www.europa.eu.int (2001).

2 Government sector consists of Central government basic budget, social security fund, medical insurance fund, the extra-budgetary Forestry and Environmental fund, and local government. In Estonia there are also a number of extra-budgetary funds.

3 Government sector consists of Central government basic budget, Central government Special Budget (which includes the Special Social Security Budget), local government, and the local government Special Budget. A large number of special budgets represent about 50% of central government expenditure.

4 Government sector consists of Central government budgetary units, most extra-budgetary funds (including the privatization fund and the Agricultural Reform Fund), the State Social Insurance Fund, and the Compulsory Health Insurance Fund. There are separate state insurance funds for health and social security. There exists also a large amount of special revenues outside the budget.

Table 2: Government Revenues in the Baltic States, % of GDP

	1997	1998	1999	2000 Budget
Estonia	40.4	38.4	36.0	39.5
Latvia	41.0	40.8	36.5	39.1
Lithuania	32.6	34.0	32.9	34.1

Sources: EU Commission, The Baltic National Finance Ministries.

Table 3: Government Expenditures in the Baltic States, % of GDP

	1997	1998	1999	2000 Budget
Estonia	38.2	38.7	40.7	40.6
Latvia	40.8	41.7	40.1	41.0
Lithuania	33.7	39.4	40.7	36.9

Sources: EU Commission, The Baltic National Finance Ministries.

Table 4: Real GDP Growth Rate in the Baltic States, %

	1996	1997	1998	1999	2000	2001	2002
Estonia	3.9	10.6	4.7	-1.1	6.6	5.9	5.7
Latvia	3.3	8.6	3.9	0.1	5.7	5.5	5.5
Lithuania	4.7	7.3	5.1	-4.1	2.9	3.5	4.0

Source: EU Commission. Figures for 2001 and 2002 are forecasts.

Table 5: Inflation in the Baltic States, %, annual average

	1996	1997	1998	1999	2000	2001	2002
Estonia	19.8	9.5	9.3	3.3	4.1	4.7	3.5
Latvia	17.6	8.4	4.7	2.3	2.6	1.8	3.2
Lithuania	24.6	8.9	5.1	0.8	1.0	1.5	2.5

Source: European Commission. Figures for 2001 and 2002 are forecasts.

Table 6: Elasticity estimates

	ESTONIA			LATVIA			LITHUANIA		
Year	**Change in Budget Balance**	**Change in Output Gap**	**Elasticity**	**Change in Budget Balance**	**Change in Output Gap**	**Elasticity**	**Change in Budget Balance**	**Change in Output Gap**	**Elasticity**
1997	220% decline in budget deficit	220% decline in negative output gap	1.00	110% decline in budget deficit	150% decline in negative output gap	0.73	60% decline in budget deficit	250% decline in negative output gap	0.24
1998	110% decline in budget surplus	10% decline in positive output gap	11.00	900% decline in budget surplus	10% increase in positive output gap	- 90.00	220% increase in budget deficit	120% increase in positive output gap	- 1.83
1999	1470% increase in budget deficit	200% decline in positive output gap	- 7.30	380% increase in budget deficit	160% decline in positive output gap	- 2.38	50% increase in budget deficit	160% decline in positive output gap	0.31
2000	110% decline in budget deficit	130% decline in negative output gap	0.85	50% decline in budget deficit	190% decline in negative output gap	0.26	70% decline in budget deficit	50% decline in negative output gap	1.40

Note: Elasticity is given by the change in budget balance divided by the change in output gap. The big change in elasticity for Latvia in 1998 is due to a very big decline in budget surplus and a very small increase in output gap.

Table 7: Variance Decompositions

Budget balance explained by innovations in:	**Estonia**	**Latvia**
Output gap	83%	53%
Own shocks	17	47
Output gap explained by innovations in:	**Estonia**	**Latvia**
Budget balance	8%	2%
Own shocks	92	98

Notes: The reported values are based on a 12-period horizon. Because the results may be sensitive to the ordering, we use an ordering from the most endogenous (output gap) to less endogenous (budget balance) in estimations. Sample periods are 1996: I 2000: III for Estonia and 1995: I 2000: III for Latvia.

Figure 1: Real GDP (SA) (1995 prices in millions of Domestic Currency)

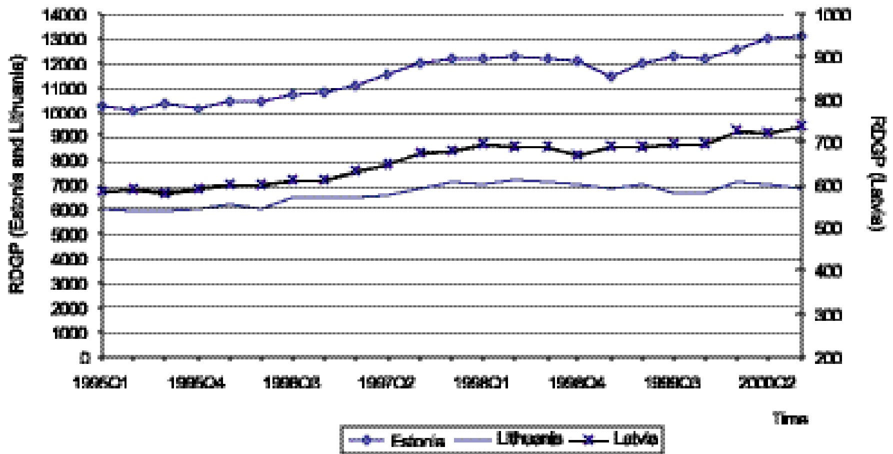


Figure 2: Output Gap for Estonia

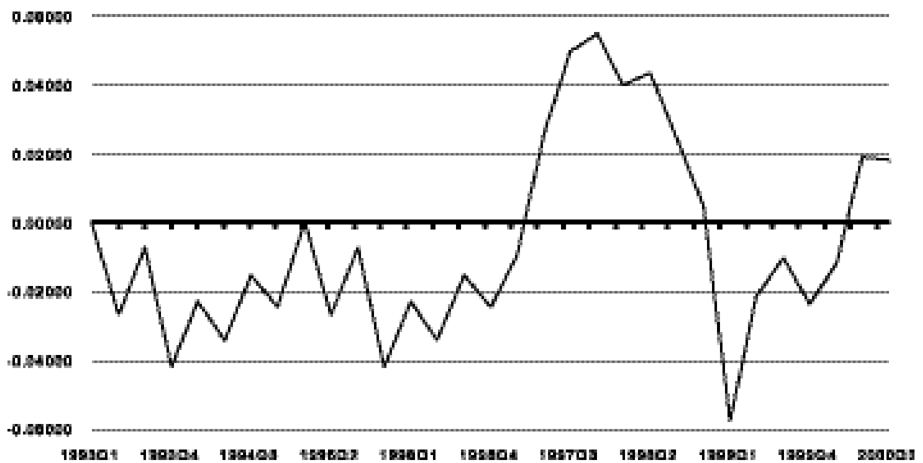


Figure 3: Output Gap for Latvia

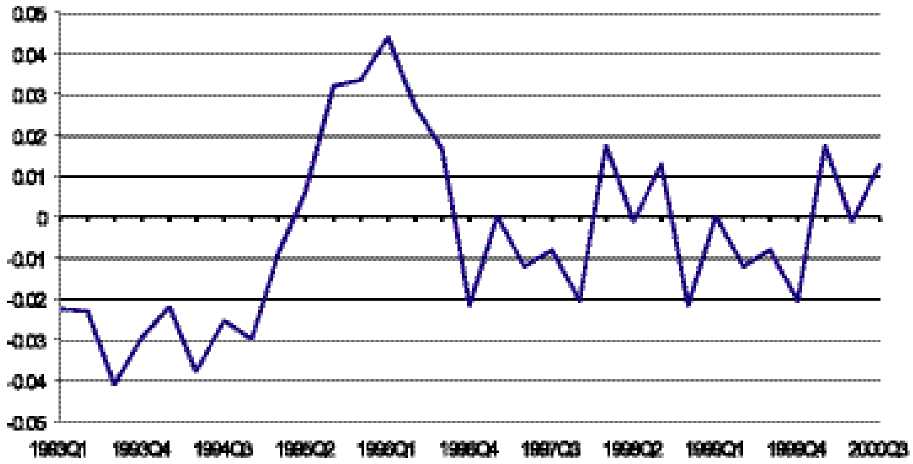


Figure 4: Output Gap for Lithuania

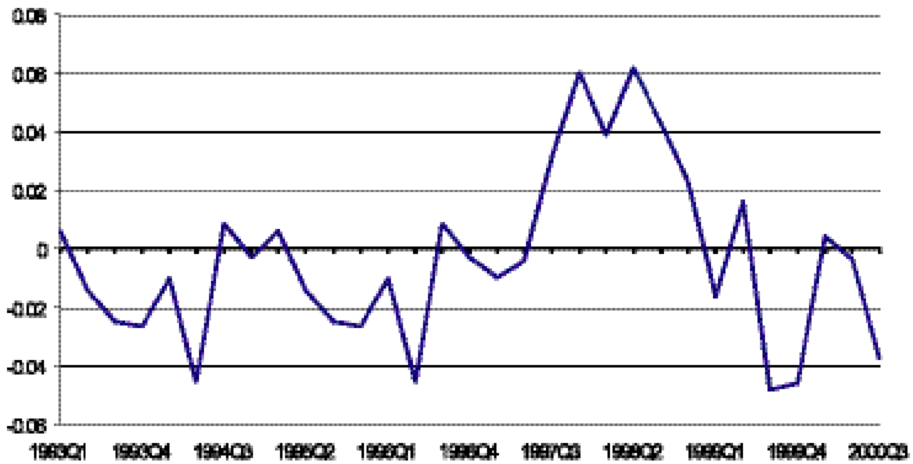


Figure 5: Output Gap vs Budget Balance for Estonia

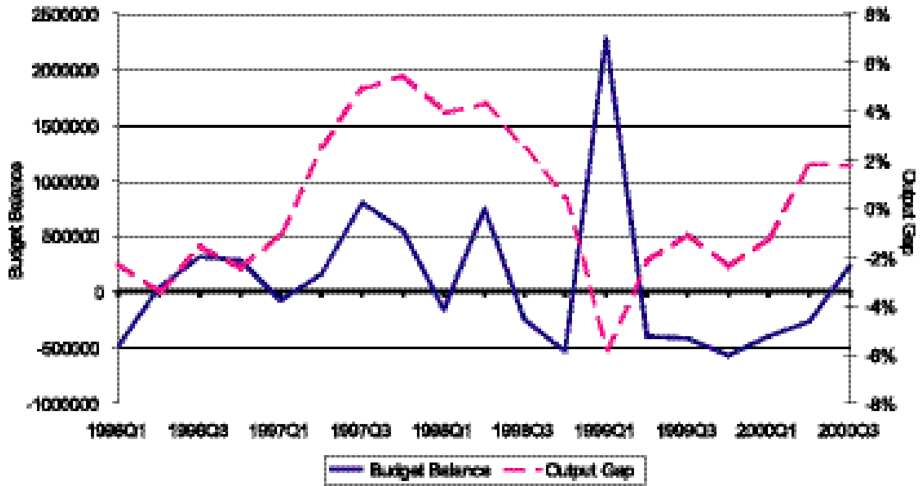


Figure 6: Output Gap vs Budget Balance for Latvia

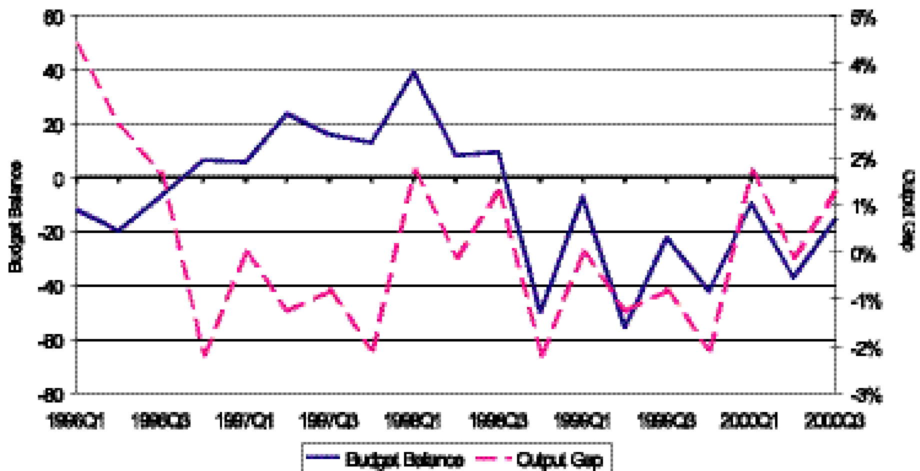


Figure 7: Output Gap vs Budget Balance for Lithuania

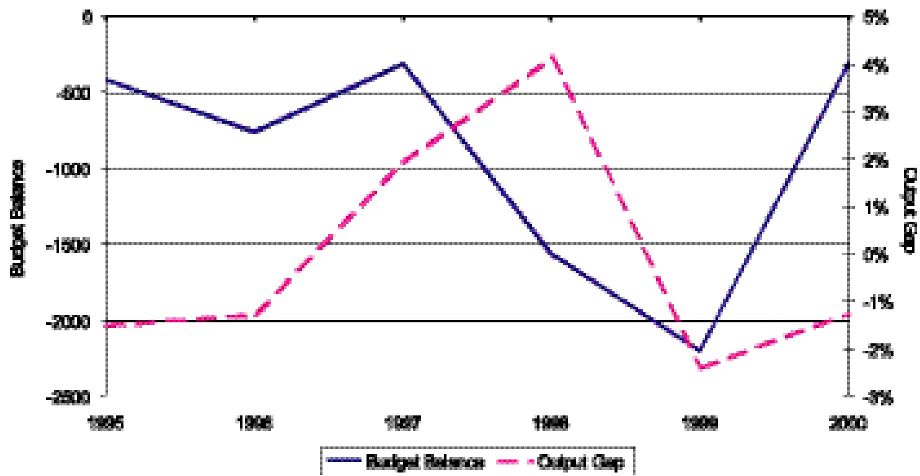


Figure 8: Zero Output Gap and Average Budget Balance for ESTONIA

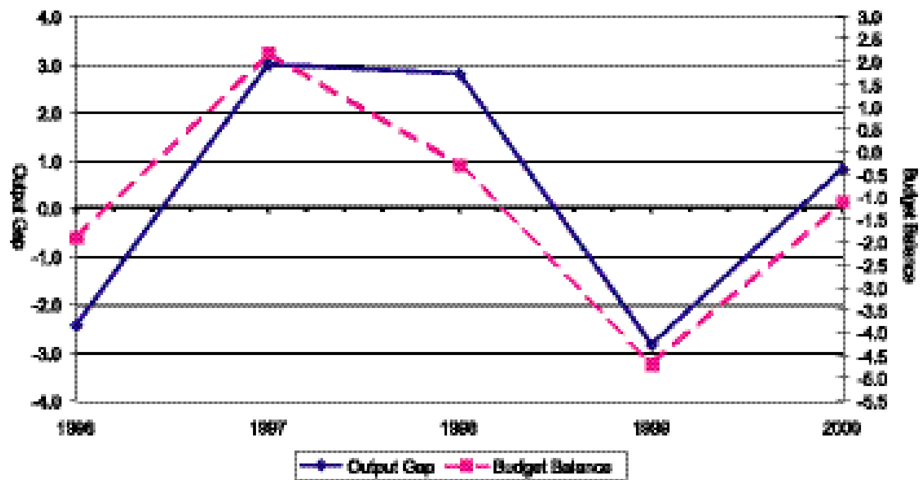


Figure 9: Zero Output Gap and Average Budget Balance for LATVIA

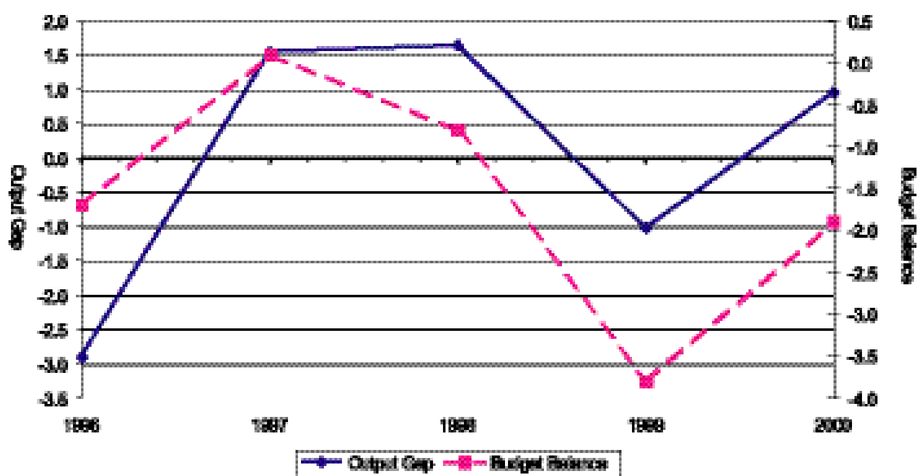


Figure 10: Zero Output Gap and Average Budget Balance for LITHUANIA

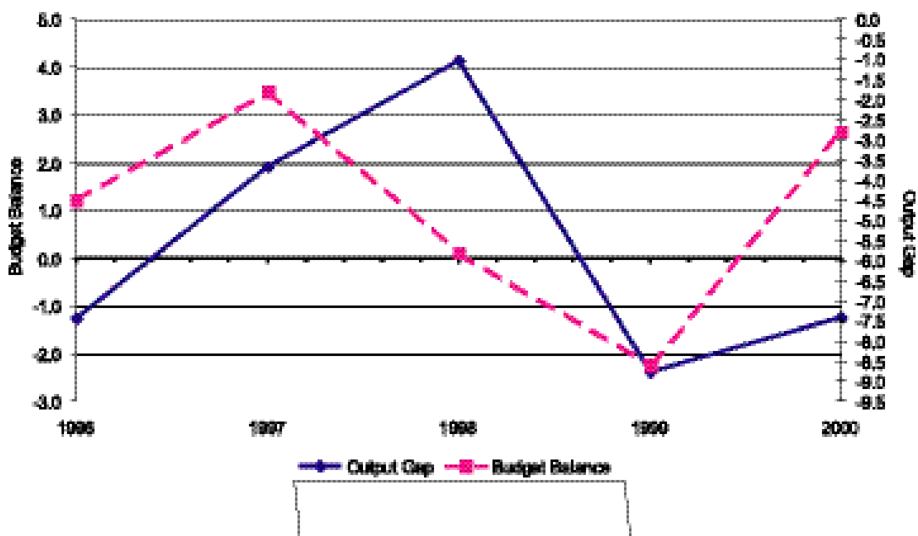
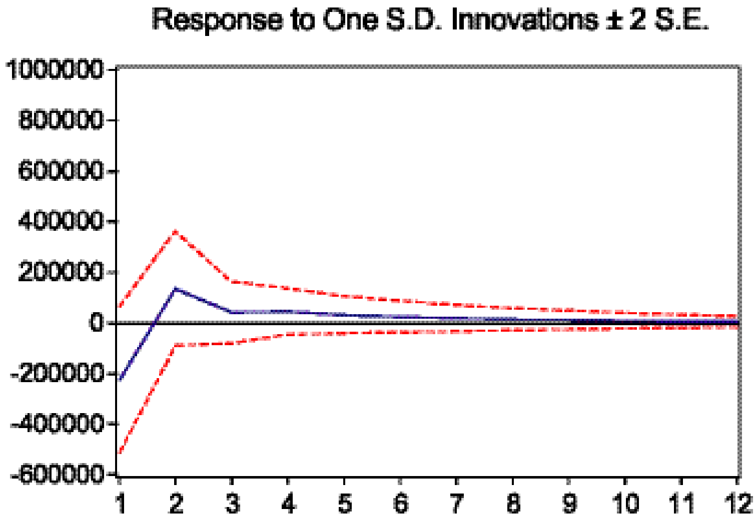


Figure 11- Response of Budget Balance to Innovations in Output Gap in Estonia



Notes: See Table 7.

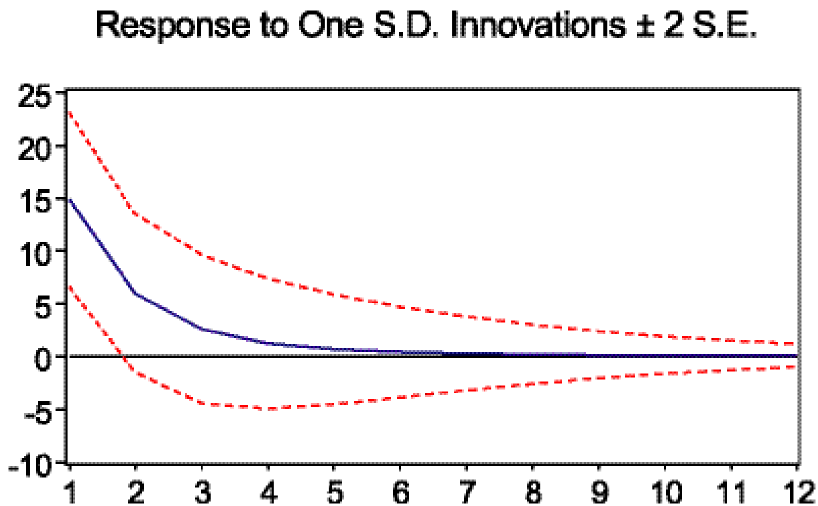


Figure 12- Response of Budget balance to Innovations in Output Gap in Latvia

Notes: See Table 7.