

**Republic of Estonia**

**CONVERGENCE PROGRAMME  
2004**

**Tallinn  
May 13, 2004**



---

---

# TABLE OF CONTENTS

---

---

<b>INTRODUCTION .....</b>	<b>5</b>
<b>1. ECONOMIC POLICY FRAMEWORK AND GOALS .....</b>	<b>7</b>
1.1. Goals of Economic Policy .....	7
1.2. Adoption of the Euro .....	9
1.2.1. Purpose for the Adoption of Euro.....	9
1.2.2. Compliance with the Maastricht Criteria.....	9
<b>2. ESTONIA'S RECENT ECONOMIC DEVELOPMENT AND PERSPECTIVES .....</b>	<b>12</b>
2.1. Recent Economic Developments .....	12
2.1.1. Real Sector.....	12
2.1.2. External Sector.....	14
2.1.3. Inflation.....	15
2.1.4. Financial Sector.....	16
2.1.5. International Evaluation of Estonian Development .....	17
2.2. Macro-Economic Forecast for Years 2004–2008 .....	19
<b>3. FISCAL FRAMEWORK.....</b>	<b>22</b>
3.1. Fiscal Policy Goals of General Government.....	22
3.2. Latest Developments in General Government Budget Balance .....	24
3.3. Development of General Government Debt.....	26
3.4. Financial Reserves of the Government.....	29
3.5. Role of Different Levels of Government and Budget Balances .....	31
<b>4. SENSITIVITY ANALYSIS AND COMPARISON WITH THE PREVIOUS PROGRAMME .....</b>	<b>33</b>
4.1. Sensitivity Analysis of General Government Financial Indicators.....	33
4.2. Comparison with the Previous Programme .....	35
<b>5. THE QUALITY OF PUBLIC FINANCE .....</b>	<b>37</b>
5.1. Forecast of Public Finance up to 2008 .....	37
5.2. General Government Revenues .....	39
5.2.1. Structure of General Government Revenues .....	39
5.2.2. Expected Developments of Tax Policy .....	40
5.3. General Government Expenditures.....	43
5.3.1. Structure of General Government Expenditures.....	43
5.3.2. Changes in Expenditure Policies.....	44
5.4. Changes in Budgeting Process and Supervision.....	47
5.4.1. Budget Reform.....	47
5.4.2. Internal Audit.....	47

<b>6. LONG-TERM SUSTAINABILITY OF PUBLIC FINANCE.....</b>	<b>50</b>
<b>ANNEXES .....</b>	<b>53</b>
<b>Annex 1. Main Economic Indicators of Estonia in 1997–2003 .....</b>	<b>54</b>
<b>Annex 2. Detailed Overview of the Reasons behind the Current Account Deficit .....</b>	<b>55</b>
<b>Annex 3. Output Gap and Cyclically Adjusted Budget Balance .....</b>	<b>59</b>
<b>Annex 4. Assumptions of forecasts.....</b>	<b>63</b>

---

## INTRODUCTION

---

The Convergence Programme was prepared by the Ministry of Finance of Estonia in cooperation with the Bank of Estonia and the Ministry of Economic Affairs and Communications. The document reflects the goals of the Government and its policies to achieve those, set by the coalition agreement and other strategic documents. The programme also considers the EU trends and policies – for example, the Lisbon strategy and the Stability and Growth Pact that we intend to comply with. Here it should be noted that the Convergence Programme has been devised simultaneously with the State Budget Strategy 2004-2008 and therefore is in compliance with the aforementioned document.

As stipulated in the State Budget Act of Estonia, the time frame of the Convergence Programme reaches to 2008 (the following budgetary year and the subsequent three years). The document consists of five chapters, providing an overview of: goals of economic and budgeting policies, recent economic developments, macro-economic forecasts, fiscal framework, long-term sustainability of fiscal policy and improving the quality of public finance. Analytical annexes to the document provide an elaboration of Estonian current account developments and assessment to Estonian output gap and structural balance of the budget.

**The main goal of Estonian fiscal policy is to ensure sustainable and balanced economic development.** To achieve this goal, Estonia will implement a macroeconomic stability and growth oriented economic policy, which is directed to achieve the price stability and preserve a budget discipline. This policy also includes structural reforms to increase the potential for economic growth – in labour market, education, increased investments in research and development activities. So as to accelerate long-term economic development and monetary stability, **Estonia wishes to become a full member of the European Economic and Monetary Union, EMU, as soon as possible. This means that Estonia wishes to join the exchange rate mechanism (ERM III) immediately after the accession with the European Union. Our intent is to participate in ERM II with a standard fluctuation band while maintaining the achieved stability of exchange rate and to maintain the present Currency Board system unilaterally.**

Last years' economic developments in Estonia have been relatively positive. Estonia was able to maintain a considerable economic growth regardless of notable slow-down in the economic growth of our main trade partner – the European Union – while successfully controlling inflation. One of the best characteristics of last year besides rapid economic growth was growth in employment and decrease in unemployment. Estonia's economic success is also reflected in favourable international ratings. Current account deficit is generally highlighted as the main risk for Estonian economy; nevertheless, closer observation reveals a number of specific reasons for this phenomenon. Our current account deficit is not simply caused by deteriorating trade balance, which could refer to decreased competitiveness. In contrary – the ratings of international competitiveness show that Estonia's position is improving. There are two main reasons for the current account deficit: negative income balance, which is caused by high profitability of foreign investors operating in Estonia (nevertheless, this does not mean the outflow of revenues as the profit is mostly re-invested and shown as outflow of revenues on current account while being simultaneously recorded as foreign investment inflow on financial account) and so called one-off investment transactions, the largest of which – purchase of railway oil wagons and renting them to Russia – is not related to Estonian's domestic demand but single companies operating in abroad and doesn't therefore reflect the general trends of our economy.

**The goal of the government's fiscal policy is to sustain conditions for stable development through sustainable public finances.** For that purpose, the Government shall continue with balanced budget position, keeping in mind the main goals of the Stability and Growth Pact. Over the last couple of years the considerable surplus of general government budget has helped to balance the current account deficit. In the coming years the Government will keep the general government budget position at least in balance. If the economic developments are different from the projected outlook, also the actual budget position can be different by the extent of the automatic stabilizers. It is important to note the **Estonia's budget policies have been counter-cyclical over the previous periods.** Both the actual and cyclically adjusted budget position were negative during the period of economic recess (in 1998–1999) and positive during the years where the actual growth exceeded the potential growth (2001–2003).

The tax burden will be decreased by the government's plan to reduce the tax burden of labour. For this purpose the income tax rate is going to be reduced to give a positive impulse to labour market development while contributing to the achievement of the goals of the Lisbon strategy. Estonia has already achieved the goal of the Lisbon strategy for year 2010, regarding the employment of the elderly people; the employment rates of women are close to the goals established. Nevertheless, the total employment rate still remains below the established goal. Considering the extension of tax base and improved administrative capacities (incl. the decrease in grey economy and so called "envelope wages" from which the taxes are not paid), financing of the tax reforms shouldn't be a problem. Economic growth also contributes to financing of the tax reform – revenues of the general government in nominal amounts are increasing even as the reduction of income tax receipt is being taken into account.

So far, Estonia's budget policy has been conservative and therefore, contributed to successful economic development. Budget process has been developed and internal audit has been strengthened to allow the similar developments to continue while contributing to the economic development of the state. Pension reform implementation will help to cope with the increasing costs expected in connection with an increase in the number of seniors. It will also keep the Estonian public finance sustainable in the longer run.

---

# 1. ECONOMIC POLICY FRAMEWORK AND GOALS

---

## 1.1. Goals of Economic Policy

---

The primary macroeconomic objective of this Programme is to facilitate the real convergence of Estonia by means of sustainable economic growth supported by low inflation and stable and consistent fiscal and monetary policy. Having confidence in liberal market mechanisms that have performed well as a convergence catalyser, the Estonian government continuously sees its primary role in providing the macroeconomic stability, which is the essential contributor to Estonia's economic progress.

In this respect, the government will continuously focus on maintaining the successful policy mix. It will retain the conservative fiscal policy with an explicit rule of nominal budget balance; and it will make an effort in complying Estonian monetary policy to that of the EMU in order to enhance monetary stability by adapting the euro. Nominal budget balance rule has been used in Estonia since the beginning of transition<sup>1</sup>; and is continuously preferred to more complex rule of cyclically adjusted balanced budget over the business cycle.

This Programme emphasizes the government's persistent willingness to be an efficient facilitator, rather than a pro-active designer of the economic development. The internationally competitive and dynamic modern business sector is seen as a main engine of growth and convergence. Hence, the medium-term objective of fiscal and monetary policies is to provide a favourable business environment that will stimulate growth of employment, inflow of foreign direct investment, and therefore growth of productivity, that is currently still low when compared to other countries, and income.

Although a share of government will remain stable, a lot has been done in improving an efficiency of public policies mostly by means of prioritizing, horizontal policy coordination and learning-by-doing. Particular attention has been paid to promoting liberal conditions on the labour market, including free movement of labour, reduction of tax burden, active labour market policies and coordination between education and employment policies.

One of the key administrative challenges is the need to close the structural gaps in infrastructure, employment and education issues that have been identified as main obstacles for convergence and on the same to keep the fiscal policy in line with Stability and Growth Pact and not to sacrifice the achieved strong budgetary position. The government will sustain this balance by improving the administration of revenues and increasing the efficiency of budgeted expenditures.

---

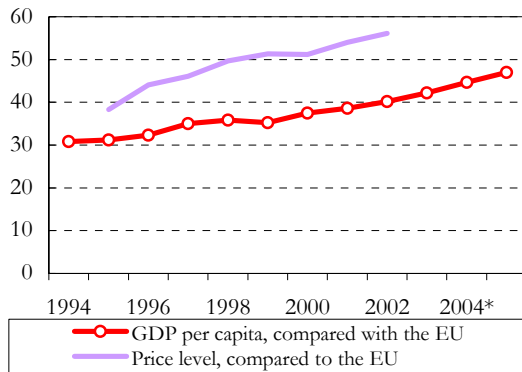
<sup>1</sup> At the same time, different policies have been used over the first years of independence, therefore, a balanced budget of that specific period doesn't necessarily mean the same according to a contemporary ESA 95 methodology.

**Figure 1**

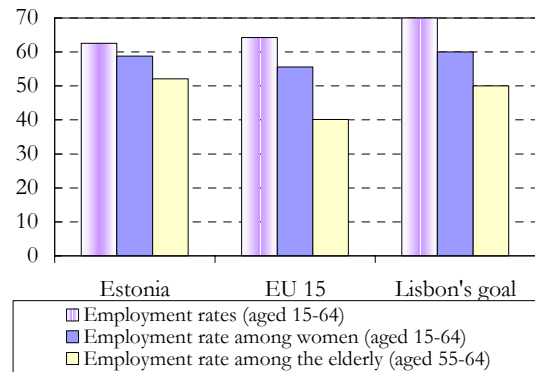
**Real convergence with the EU and employment goals of the Lisbon strategy**

(%)

**A. Estonia's real convergence with the EU**

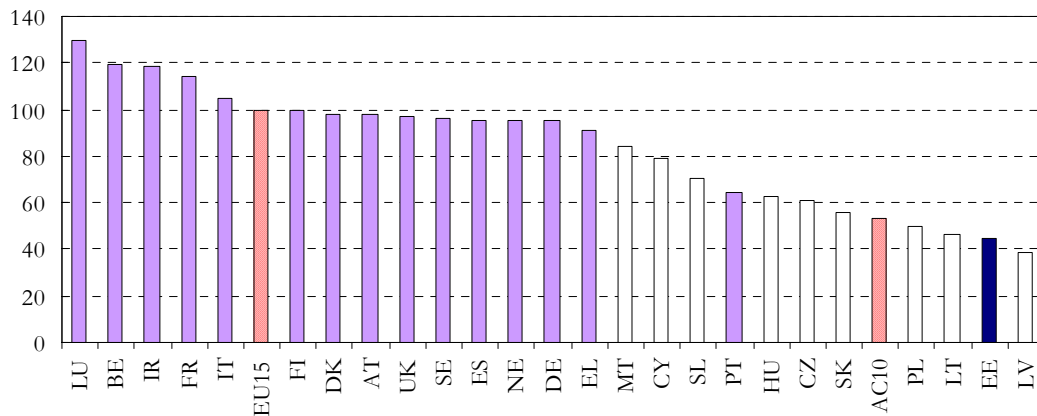


**B. Employment**



Source: Statistical Office of Estonia, Eurostat.

**C. Productivity of labour per one employed inhabitant, compared with the respective EU average**





---

## 1.2. Adoption of the Euro

---

### 1.2.1. Purpose for the Adoption of Euro

It is the aim of the Government and Bank of Estonia **to become a full member of the European Economic and Monetary Union, EMU, as soon as possible to foster long-term economic development and monetary stability. For that purpose, Estonia seeks to apply for ERM II participation immediately after EU accession. Our intention is to participate in ERM II with the standard fluctuation band and to preserve achieved stability of exchange rate by maintaining unilaterally the present currency board arrangement (CBA).**

The main motive for the fast adoption of the euro is to reap the economic benefits of monetary union as soon as possible for intensifying trade relations and fostering economic growth and real convergence in Estonia. Usually it is believed that premature participation in ERM II may entail some costs in other areas, like short-term costs of fiscal consolidation and the cost of giving up the independent monetary policy and flexible exchange rates as stabilization tools. The costs related to possible loss of independent monetary policy are non-existent for us, as Estonia **has been practically in a quasi-monetary union with euro area core countries for almost a dozen years now and has experience in absorbing asymmetric shocks without the need to use the exchange rate mechanism.** Estonian currency board has even in difficult times preserved a high level of credibility in financial markets and in the society. It is noteworthy that the CBA has operated in conjunction with essentially free financial flows from 1994 onwards.

Fiscal discipline has been strongly entrenched in our political culture, and together with the flexible labor market it is one of the most important prerequisites for a smoothly operating currency board system. Estonian public debt (5.8% of GDP in 2003) remains the lowest among the EU members. Moreover, **central government's liquid (mostly foreign) assets accumulated from privatization receipts and recent fiscal surpluses amount to 10% of GDP (in addition to central bank reserves), thus exceeding three times the value of gross debt.**

Exchange rate stability has also brought us significant and successful stabilization of inflation and interest rates. **Inflation in Estonia has remained at single-digit levels since 1998 and is currently even below the EMU level** (annual CPI was 1.3% in 2003). The medium-term inflation rate in Estonia is expected to remain *ca* 1–2%points higher than in the present EMU countries reflecting primarily productivity and income related price level convergence processes, mostly referred to as the Balassa-Samuelson effect. **Interest rates have closely followed the Euro area interest rates**, as monetary policy transmission from the ECB interest rate decisions to Estonian financial sector has been increasingly evident.

Although in ERM II and EMU our economy will be subject to the discipline of euro area macroeconomic policy framework, entrance into ERM II does not entail high policy convergence costs for Estonia. There is no valid reason to suppose that the CBA would become a less appropriate arrangement over the medium term, as there are **no medium-term sustainability issues emerging at the current juncture that should be addressed through the exchange rate system rather than other policy measures.**

### 1.2.2. Compliance with the Maastricht Criteria

For the final acceptance of euro Estonia must meet the convergence criteria regarding the budget deficit (not exceeding 3% of GDP), state debt (not exceeding 60% of GDP), inflation and interest rates (close to the respective average of the three EU countries with the lowest indicators), established with the EU Maastricht Treaty and become the member of the exchange rate mechanism ERM II. If Estonian economy continues its current trend of development, there will be

no problems with meeting the Maastricht convergence criteria and Estonia may easily be one of the first new member states adopting the euro.

As we consider Estonia's economic growth, which has been rapid compared with the former EU Member States, the compliance with price stability criterion may be a slight problem, as this is a 'moving target' or, in other words, changes every year. The current estimates gave 1.2–1.3% to be the average price increase in the EU countries with the lowest inflation rates over the evaluation period, consequently, the Maastricht price stability criterion is 2.7–2.8%. Rapid growth of productivity and income is, as a rule, accompanied with a pressure for more rapid rise in prices. Open economy makes our inflation vulnerable to foreign price changes and therefore, also rather volatile, for example, international **price pressures**, which generated inflation in 2001 due to a rise in food prices, resulted in inflation rate of 7% in some months whereas food and fuel became cheaper. For that reason, Estonian inflation was lower in 2003 than the respective EU indicator. Consequently, we have to avoid taking economic policy decision, which may amplify such developments – it is important to keep administrative price growth under control and avoid the implementation of expansive budget policy, accompanied with additional price pressures. For example, major investments in road construction, made by general government over the last couple of years, have triggered price increase in this sector. This is why we have to observe the influence of sector-related expenditures on price levels in respective sectors, not only the total expenditures of general government and budget balance. Acceptance of euro alone won't cause major inflation – this is evidenced by the present experienced of the EU Member States.

So far, the general government budget position has been close-to-balance and consequently, the state debt is rather small. The only exception was year 1999, where economic recession and over-optimistic budget resulted in general government budget deficit, amounting to 4% of GDP when measured with ESA 95 method. Here we should also keep in mind that while the Maastricht criterion sets 3% of GDP as the limit for a budget deficit, the **Stability and Growth Pact (SGP) requires the EU Member States to devise their budget policy in such a way that the goal would be to have budget position close-to-balance or in surplus**. Therefore is important for Estonia to continue with the implementation of conservative budget policy while maintaining the balance of general government's budget. This requires substantial changes in budget policy implemented by local governments – budgets of local governments in total have been in deficit consistently.

Our current exchange rate system meets the ERM II requirements – exchange rate of Estonian kroon with euro has been fixed since 1999 and the EU institutions have asserted the conformity of currency board system for the participation in ERM II. Before the adoption of the euro, Estonia is not required to abandon the currency board system and the current fixed exchange rate with the euro. Therefore, up to adoption of the euro, Estonia preserves a fixed exchange rate with respect to the euro (1 EUR = 15.64664 EEK), which is enforced by the current legal framework in the form of a currency board arrangement.

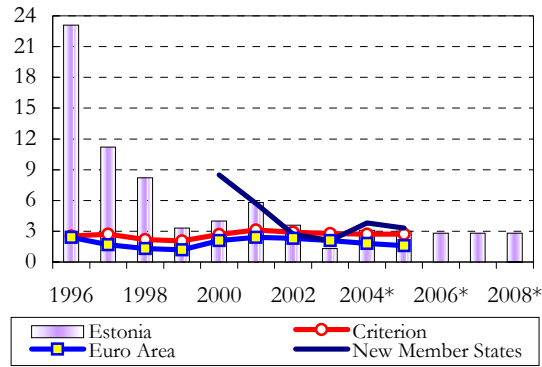
The interest rate criterion is linked to the inflation criterion – lower inflation shall be accompanied with lower interest rates. Estonia lacks an appropriate instrument for the evaluation of interest rate convergence (due to the absence of 10-year government bonds emitted in Estonian kroons); nevertheless, Estonia is principally complying with interest rate criterion as we consider the currently low interest rates on loans in kroons.

**Figure 2**

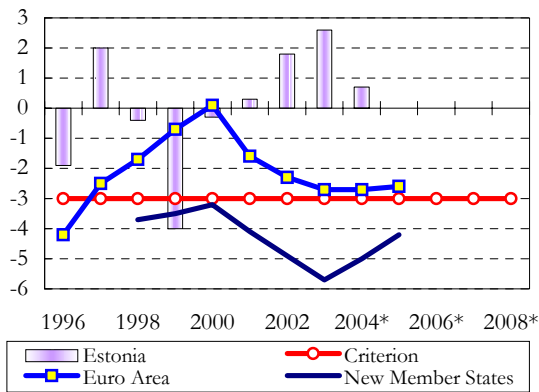
**Real convergence and compliance with the Maastricht criteria**

(%)

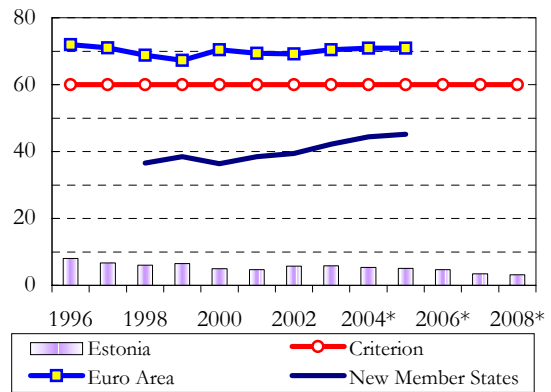
**A. Inflation**



**B. Balance of general government budget**



**C. General government debt**



Source: Ministry of Finance of Estonia, Statistical Office of Estonia, Eurostat.

---

## 2. ESTONIA'S RECENT ECONOMIC DEVELOPMENT AND PERSPECTIVES

---

### 2.1. Recent Economic Developments

---

#### 2.1.1. Real Sector

The long-expected increase in growth of world economy only happened in the end of 2003 and was initiated by rapid economic growth of the USA and Asian countries. Increased domestic demand in the USA was accompanied by increased export from, above all, China; this resulted in increased economic activity all over the world. Rapid growth of export from China was facilitated by fixed exchange rate regime, contributing to China's better competitiveness due to the cheapening of the dollar. Japan demonstrated surprisingly good developments; its growth was mainly supported by strong exports to the USA and China.

As the recovery of external environment and, above all, European economy was postponed, Estonia's economic growth slowed down to 4.5% in 2003, this indicator being considerably slower than the average growth over the last three years (6.1%), being nevertheless slightly higher than the forecast given in the last Pre-accession Economic Programme (PEP) (4,5%). **Considering the development trends in world economy, Estonia's economic growth was still considerably strong.** Economy of the European Union grew by 0.8% in 2003, while the respective indicator of the Euro area was only 0.4%. Economic growth increased during the second half of the year, as the continued increase of internal demand was supported by positive developments in exports sector. In 2002-2003, economic growth mainly relied upon domestic demand whereof growth accrued from one-off investments and adaptation of consumption that was supported by expectations of income increase. In 2002-2003 the growth of domestic demand overcame GDP growth (respectively 10.5% and 6% in 2002; 8.7% and 4.7% in 2003) and the share in GDP increased to 109.8%, while the relative share of exports totalled to 81.2%. Strong economic growth in Estonia was supported by the EU's economic development in the Nordic countries, which was faster than the average.

Increase in private consumption expenditures slowed down in 2003 compared to last year, and its growth trend was similar to GDP growth that assured savings ratio to stay at 2002 level. Exceptionally low interest rates on loans in addition to a record low consumer price index and low interest rate on deposit savings favoured private consumption as well as the last years' biggest growth in real salaries. Partially, this was a matter of natural development, where strong income growth, which started a few years ago, in addition to decreasing interest rates suddenly made a majority of the population credit-worthy. Consumption was facilitated by rapidly increasing employment and decrease of inactivity.

Low interest rates and active foreign investment inflow favoured high investment activity over last year, contributing to the increase of relative share of investments to a record level – 32.9% of GDP. Growth of investments was supported by both the active construction activities and acquisition of means of production. When observing distinct sectors, major share of investments was made into the energy sector, followed by hotels and restaurants and transport, warehousing and

communications. The increase of investments share based on investments to railway-carriages (for more specific information see Annex 2), growth of other investments was more modest.

When observing the growth of added value by sectors, it slowed down in 2003 both in industrial and services sector. Slowdown in the growth of processing industry was caused by inhibited growth of traditional branches of export and slow development of sub-contracting industries. Decreased growth of internal trade was brought on by decreased profitability of retail trade, caused by tougher competition. As for the construction sector, decreased growth of added value can be explained by slowed growth of construction market, brought on by recession in road construction.

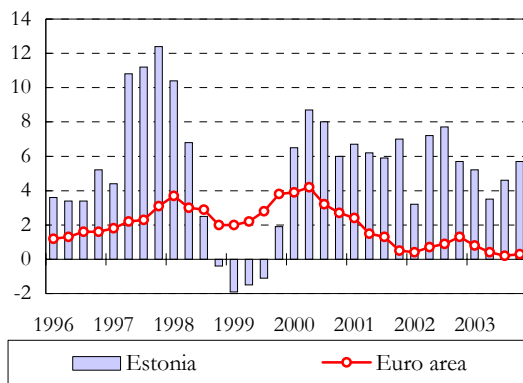
At the same time the growth of added value in transport and communications sectors increased; this is attributable to optimisation of costs in transit companies and improved profitability of telecommunications sector. Real growth of real estate and other business related services also showed an increase – this was supported by increasing rise of real estate sector and good economic results of companies involved in information technology, advertising and other business related services. Energy sector’s contribution to the growth of added value grew also remarkably due to domestic consumption and increase of exports.

**Figure 3**

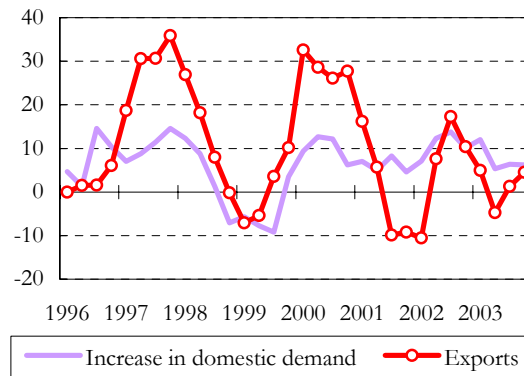
**Main real sector indicators**

(%)

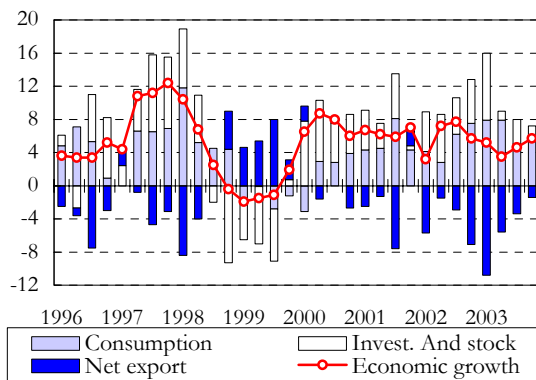
**A. Economic growth**



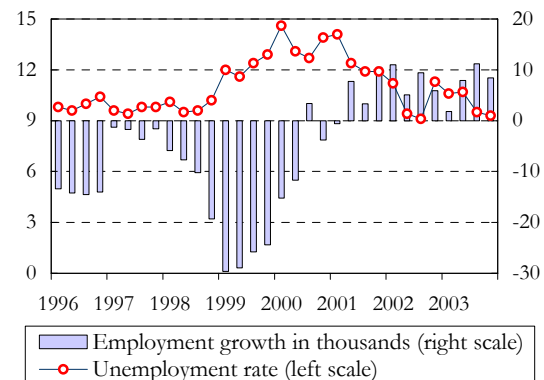
**B. Increase in domestic demand and exports**



**C. Contribution to economic growth**



**D. Employment and unemployment**



Source: Statistical Office of Estonia, Bank of Estonia, Eurostat.

### 2.1.2. External Sector

Increased growth of export in 2003 should be highlighted as a positive development, influenced by both increased volume of exported goods and increased export of services. Export of goods was mostly supported by improved competitiveness of our own products in foreign markets<sup>2</sup>, but also the growth of industrial production in Europe, accompanied with increase of sub-contracting volumes in Estonia. Transit and tourism sector contributed to the export of services. Positive impact of export was somewhat downscaled by even more rapidly growing import last year, mostly attributable to active investment activities. Import of capital goods grew by approximately one third over the year, supported by the import of means of transport, which, on its turn, was influenced by import of railway carriages and equipment. The relative share of railway carriages and equipment in total imports increased from 0.5% in 2001 to 4.6% in 2003.

Current account deficit (for more specific information see Annex 2) amounted to a record 13.7% of GDP last year; however, this can be explained by large volume of re-invested revenues, gained from profitable foreign investments (income balance deficit increased during year 1.4pp, amounting to 6.5% of GDP, wherefrom re-invested revenues made up 4.8% of GDP), transactions having no influence on Estonian domestic demand (oil tanks amounting to 3% of GDP) and single large investments (energy – 2,5-3% of GDP). When speaking of current account components, the growth of trade balance deficit is most notable. Relatively slow growth in export of goods can be explained by postponed recovery of foreign demand; slower growth in export of services is related to the recess in transport sector in the beginning of the year, prevailing longer than expected. Growth in import increased in 2003, regardless of dropping growth of domestic demand, mostly due to the grown import of capital goods necessary for improving the competitiveness of Estonian products and preparations for the EU accession. **Therefore, there are very specific reasons for the current account deficit. This is not related solely to large trade balance deficit and consequently, does not reflect a general loss of competitiveness. Our competitiveness is good according to international indexes, at that we are ahead of some old EU members** (see 2.1.5. International Evaluation of Estonian Development).

#### Reasons of current account deterioration:

- a) Motor of economic growth was foreign demand instead of domestic demand, whereof the main reason was slightly different economic cycles of Estonia and European Union (different level of economic activity and not so much dynamics of the cycle);
- b) Investments to infrastructure and other single large investments;
- c) Optimistic expectations and big capital flows that were connected with EU accession.

---

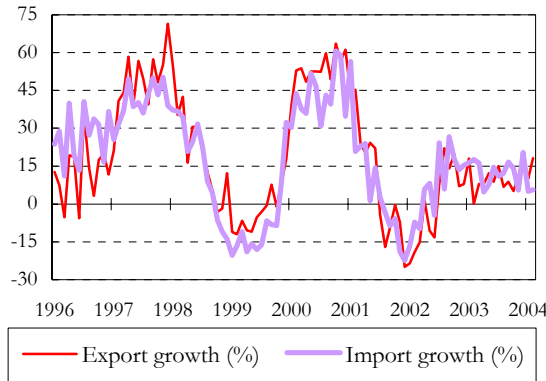
<sup>2</sup> Estonian export grew faster than the import volumes of our main trading partners.

**Figure 4**

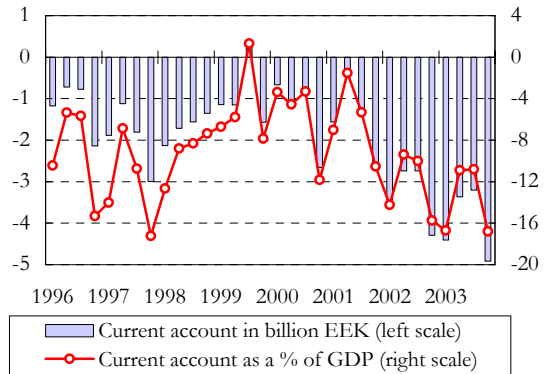
**Development of main external sector indicators**

(% of GDP)

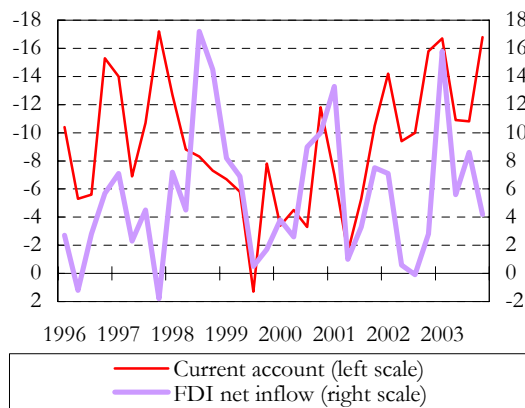
**A. Export and import growth**



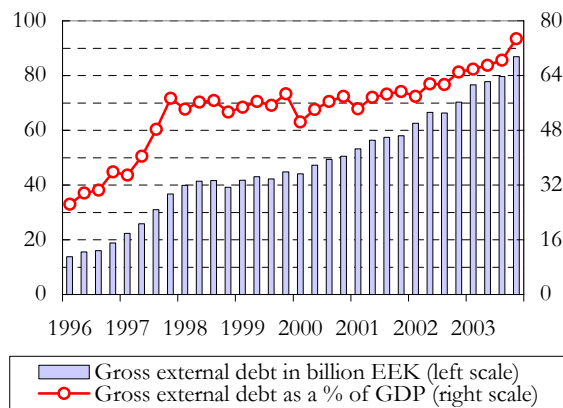
**B. Current account**



**C. Current account and foreign investments**



**D. Gross external debt**



Source: Statistical Office of Estonia, Bank of Estonia, Eurostat.

**2.1.3. Inflation**

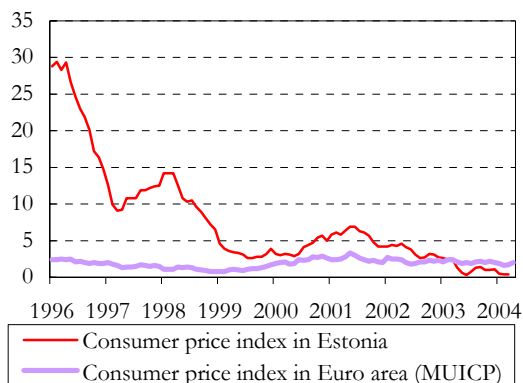
Smooth operation of currency board system and high reliability during years have guaranteed decline of inflation expectations. Consumer prices only increased by 1.3% in 2003, being at a record low level and remaining lower than the Euro area level (2.1%). From one hand, the development of consumer prices was influenced by the cheapening of foodstuffs and motor fuel, and, from the other hand, limited number of administrative actions. Tougher competition between enterprises should be observed as an important factor, contributing to the decrease in prices of motor fuel. Stronger euro and Estonian kroon with respect to the US dollar stopped a price level increase and made import of goods including fuel, cheaper.

**Figure 5**

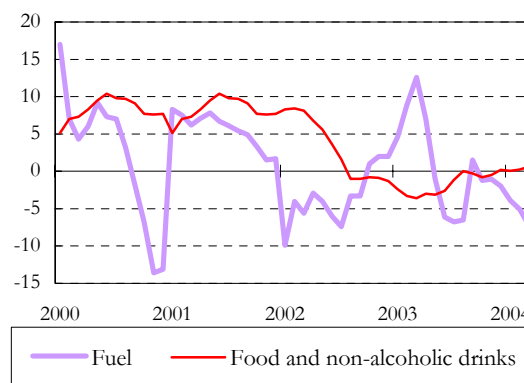
**Changes in prices**

(per cent)

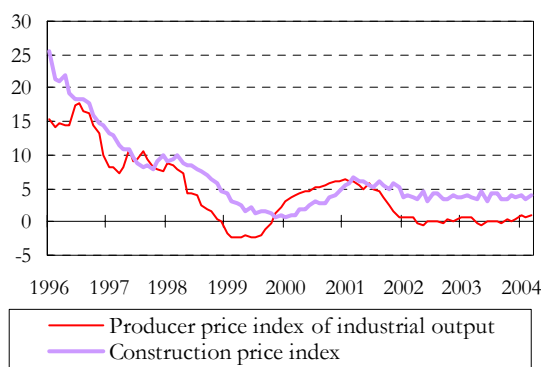
**A. Consumer price index in Estonia and Euro area**



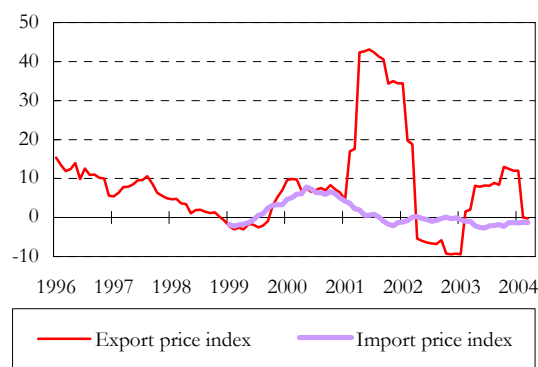
**B. Changes in food and fuel prices in Estonia**



**C. Producer and construction price index**



**D. Foreign trade prices**



Source: Statistical Office of Estonia, Bank of Estonia, Eurostat.

**2.1.4. Financial Sector**

In 2003, development trends of financial intermediation were strongly influenced by expansive monetary policy environment. The gap between the loan interest rates in the Euro area and Estonia continued to diminish. Environment of low interest rates has facilitated borrowing; the demand of individuals for housing loans has been strong. In 2003, financial assets of banks and aggregated leasing and factoring portfolio amounted to 84% of GDP. From seven commercial banks that were operating in Estonia there was one branch of foreign bank and in three commercial banks the foreign parent banks owned major share according to 2003 data. Altogether the foreign share of banking sector assets reached to 97.5%.

**Deposits** increased only by 10% or approximately 4.7 billion kroons in 2003. This is mostly attributable to the deposits of enterprises (~13%); the growth in savings of individuals was somewhat more limited (~9%). The share of call deposits grow faster than the respective share of fixed-term deposits, reaching 67.2% by the end of 2003. Moderate growth of deposits' volume contributed to strong involvement of resources from foreign institutions, above all from foreign banks. As the results, liabilities of banks to non-residents totalled to 42.7% of banks' total liabilities in 2003.



Loans and leasing aggregated portfolio of banks grew by more than 27% or approximately 15 billion kroons over the year. This was largely attributable to the commercial loans of individuals while leasing balance increased by 8 billion kroons or approximately 46%. Major share of increase in financing made available to individuals (80%) is attributable to housing loans and leasing. Crediting of enterprises increased by 7 billion kroons or 19% in 2003. In addition to annual growth of financing of commercial real estate by more than 2 billion kroons, financing made available to enterprises involved transport, warehousing and communication and trade sector also grew considerably.

Like in several other EU Member States, low interest rates serve as one of the reasons for rapid growth of housing loans; in Estonian context this is supported by improved availability of loans and increased security of individuals, brought on by economic growth. Although the relatively high loan growth indicator refers to certain signs of danger, we should still keep in mind that the rapid growth of loans is attributable to the relatively low loan volume (21% of GDP) and relatively small number of household (approximately 10%) having taken out a loan. The circumstances mentioned above provide the reason to assume that as possible problems rise, the parties to suffer will be over-optimistic individuals-loan clients.

Therefore, the Bank of Estonia has decided to adopt preventive measures and point out the possible problems before the described developments aggravate. The Bank of Estonia and Financial Supervision Authority send a letter to credit institutions, stressing the need to maintain the existing loan granting standards and inform the clients of possible risks accompanying loans, above all, problems with loan servicing arising of increase in interest rates. The Government, on its turn, diminished the limit for income tax benefit applicable to housing loans, from 100,000 kroons to 50,000 kroons.

Regardless of decrease in price difference of interest rates on assets and liabilities, brought along by tight competition, expansion of loans and successful cost management preserved banks' **profitability**. In 2003, the aggregated cost-benefit indicator of banks' equity was, respectively, 14.4% solo and 20.1% for consolidation groups. Regardless of strong growth of values-at-risk, capitalization of banks has remained at satisfactory level – in the end of 2003, the aggregated capital adequacy indicator totaled to 14.5% (solo) and 12.5% (for consolidation groups).

**The stock exchange of Estonia** is characterised by continued increase of stock prices in 2003. The respective trend also continued during the first quarter of 2004, increasing the stock exchange index by 19% when compared to the respective level in the end of last year. **The bond market** activity is still rather low. Increase in assets, administrated by **funds**, has been engineered by money market funds and interest funds. Remarkable share of funds' investments was contributed by obligatory pension funds, receiving the instalments of 170,000 individuals having joined the system in 2002, as of the beginning of 2003.

### 2.1.5. International Evaluation of Estonian Development

In order to evaluate the development of Estonia, the credit ratings assigned to Estonia have to be analyzed along with references to Estonia in internationally accepted researches. Standard & Poor's and Fitch IBCA rating agencies did not change their ratings of Estonia given in 2003 – national long-term foreign currency denominated liabilities rating or national rating was left at level A1. The ratings were also not changed by rating agencies Standard & Poor's and Fitch IBCA (at level A-), but the perspectives were rated as positive which allows us to expected increased ratings. The changed perspective is mostly attributable to the influences brought of by the EU accession, which are expected to improve credibility, as expressed by rating agencies and foreign investors. Rating agencies named joining the EU and NATO, success in implementation of structural reforms, conservative fiscal policy and the existence of a currency board system as strengths of the Estonian economy, which altogether strengthened the fundamental indicators of the economy and provided rapid economic growth. The greatest problems named were high current account deficit and lower

living standard. Fitch IBCA announced that the new EU Member States might expect improved ratings after the accession with the Euro area. The Euro area – rated with AAA – will protect the new associates from external shocks while increasing investments, trade exchange and movement of capital. The main difficulties of the new EU Member States are related to budget deficit, however, Estonia is currently the only country boasting with a positive budget position.

Economic freedom is one of the distinct characteristics of Estonia. The Heritage Foundation's economic freedom index 2004 had Estonia on the 6th place among 161 other nations. A high place was given to Estonia due to liberal trade policy, open foreign investment policy, low control over prices and a well-developed banking sector. The evaluation given to Estonia deteriorated by 0.08 points in 2003, as the government increased the administratively regulated prices and the relative share of general government in economy increased. The 2003 economic freedom index volume points at three problematic fields in Estonia: the big share of government expenditures and black market in the economy, protection of private property.

Competitiveness in Estonia also received high international grades. IMD World Competitiveness Yearbook 2003 named Estonia the most competitive country in Central and Eastern Europe and placed Estonia on the 17th place among 29 small nations (population less than 20 million). Estonia succeeded two EU Member States. The given research named rapid economic growth, economic freedom and low tax level among the country's strengths. High unemployment, price level and current account deficit, lack of skilled labour and low level of security and living standard were marked as the main weaknesses of Estonia.

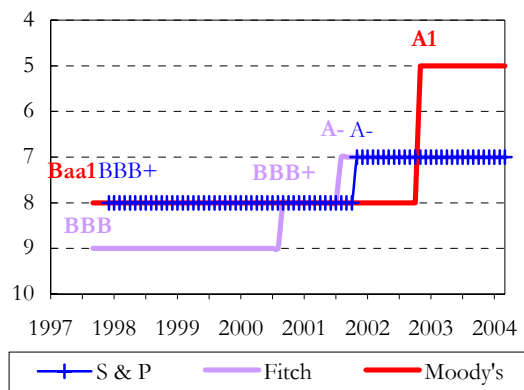
Another organization evaluating competition is the World Economic Forum, which gave the highest grade to Estonia in the 2003–2004 worldwide competition report on Central and Eastern Europe. Competition was evaluated in 120 states altogether. Competition growth index (grades national economic growth potential per capita for the next 5–8 years) placed Estonia in the 22<sup>nd</sup> place; Estonia's rating improved by five places within one year. Microeconomic index (grades national productivity or GDP per capita) gives Estonia 28th place.

Low level of corruption is also important. Transparency International's corruption perception index 2003 put Estonia and Uruguay to 33<sup>rd</sup> place of 133 countries. Estonia's position dropped by four places over a year; nevertheless Estonia is one of the least corrupted states in Central and Eastern Europe.

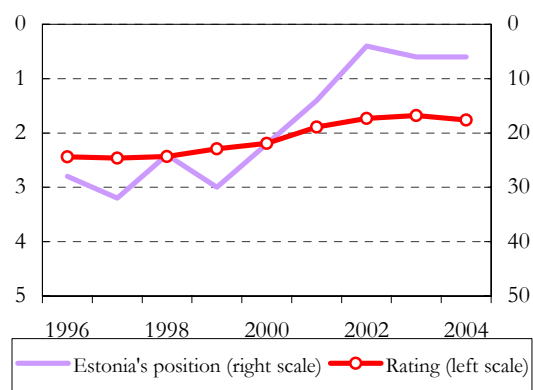
**Figure 6**

**International evaluation of Estonian development**

**A. Estonian credit rating dynamics**



**B. Index of Economic Freedom**



Sources: Standard & Poor's, Fitch IBCA, Moody's, Heritage Foundation.

## 2.2. Macro-Economic Forecast for Years 2004–2008

---

The current forecast is based on the assumption that the revival of European economy that started in the 3<sup>rd</sup> quarter of 2003 will continue this year, reaching the growth potential by 2005. Kroom interest dynamics, facilitating private sector investments and loans as the result of favourable money policy, implemented by European Central Bank, also play an important role here. Starting from the end of 2004 Euro area interest rates should start to gradually rise, bringing growth in Estonian interest rates. Generally it is assumed that the extensive structural changes, having taken place in Estonia economy during the last decade, are over now and Estonia economy is developing a flexible structure, characteristic of a contemporary small, open economy. On the background of low initial capitalization level and prevailing structural unemployment, Estonia can expect economic growth which will be, very least, close to the potential that is considerably higher than the respective indicator in developed EU Member States.

According to the forecast, the growth of GDP will increase to 5.3% in 2004. Domestic demand, having influenced economic growth in 2003, will remain relatively active. More rapid growth shall also be supported by foreign sector, above all, during the second half of the year. Thus, economic growth is more balanced in the following years. In the mid-term, economic growth should achieve its potential level. According to the forecast for year 2004 and 2005 there has been accounted one of main presumption deceleration of domestic demand due to income tax reform that brings lower growth of average wages, and general decrease of demand for durable goods (above all real estate).

Positive external environment creates a background, which allows to expect the improvement of current account in 2004. Economic growth is supported by export, increasing by *ca* 7% both on account of restored growth of service volume and increased export of goods. Additionally to increasing foreign demand, Estonian export is also being supported by improving trading environment – association with the European single market and banishing of the so-called double custom tariffs, imposed by Russia, in May 2004. There can be expected slower growth of investment activity in the following years, because of expected beginning of euro zone interest rates raise trend and expire of several large investment projects. Due to low initial capitalization level this means that investment demand is stabilizing in higher level compared to developed countries. Increasing transfers from EU structural funds that guarantee financing of investment demand relatively smaller growth of debt burden supports investments. This scenario makes presumptions with growth of household's savings ratio and balanced budgetary policy for balanced current account conform.

Growth in private consumption shall remain quite strong in the following years. This is supported by favourable interest rates and a steady growth of nominal income when combined. However, preferential growth in private consumption is expected to turn in the mid-term period; this is attributable to increase in interest rates and loan burden. Slow, but steady increase of savings ratio is supported by constant growth of living standard, partial savings of supplementary revenues that contingent to tax reform, successfully put into practise pension reform and increase of firm's profits due to greater export activity.

After the historically low inflation in 2003 (1.3%), price increase is expected to accelerate to 3.1% this year. In 2004, inflation is most strongly affected by increase in fuel excise duty rates, abolition of subsidies on goods originating from the EU countries, imposing of customs duties on goods originating from the third countries and increase of certain prices which are regulated by the state. In the mid-term period, inflation growth rate is expected to slow down; this is attributable to low inflation rates in the European Union Member States and tighter competition.

According to the estimates, the growth of average gross wages is expected to slow down in the mid-term period. This is, above all, attributable to the flexibility of labour market and limited

influence of trade unions on wage negotiations, providing the employers with an opportunity to remain in control of wage growth rates. Income tax reform should also be punted out as a factor, facilitating the described development – the real income of employees will increase with no drastic increase of nominal wages.

Favourable developments are expected to continue in the labour market; this is revealed by growth of employment and decrease in number of the inactive. Employment growth is mostly attributable to favourable industrial conjuncture and increased investments in labour-consuming branches of industry, related to Estonia's relative advantages in this area. In the mid-term period, unemployment rate shall remain below 10%; this is attributable to increased economic activity of the population.

**Table 1****Main macroeconomic indicators and forecast for years 2002–2008***(per cent)*

	2002	2003	2004*	2005*	2006*	2007*	2008*
<b>Main economic indicators</b>							
1. GDP real growth	6.0	4.7	5.3	5.8	5.6	5.9	5.8
2. GDP (bln EEK)	108.0	116.2	126.9	139.2	151.7	165.4	180.1
3. GDP deflator	4.1	3.0	3.8	3.6	3.2	3.0	2.9
4. Consumer price index	3.6	1.3	3.1	3.0	2.8	2.8	2.8
5. Employment (15-74 years old, thousands)	585.5	594.3	598.4	602.6	604.1	605.2	606.4
6. Employment growth	1.4	1.5	0.9	0.7	0.3	0.2	0.2
7. Productivity growth	4.4	3.2	4.3	5.1	5.4	5.7	5.6
8. Unemployment rate	10.3	10.0	10.0	9.4	9.5	9.4	9.4
9. Average wages (EEK)	6 144	6 709	7 260	7 762	8 291	8 914	9 715
10. Wage real growth	7.0	8.3	5.1	3.8	3.9	4.6	6.0
11. Investments and inventories (% of GDP)	31.4	32.9	33.3	33.4	33.9	34.2	34.7
12. Current account (% of GDP)	-12.3	-13.7	-13.0	-11.4	-10.8	-9.6	-8.7
<b>Sources of growth</b>							
13. Private consumption	9.1	6.2	6.2	6.0	6.3	5.4	5.3
14. General government consumption	5.0	5.6	6.5	3.9	3.6	3.3	3.1
15. Gross fixed capital formation	16.1	11.5	6.7	9.1	7.8	7.7	7.7
16. Change in inventories (% of GDP)	2.9	-1.4	2.5	1.9	1.6	1.4	1.3
17. Export of goods and services	0.6	6.0	7.4	8.5	9.9	9.3	9.3
18. Import of goods and services	5.4	9.0	7.2	7.9	8.9	8.7	8.5
<b>Contribution to GDP growth</b>							
19. Domestic demand (excl. inventories)	9.7	8.0	6.5	6.9	7.1	6.8	6.4
20. Change in inventories	0.7	0.0	-0.3	-0.5	-0.2	-0.1	0.0
21. External balance of goods and services	-4.5	-3.4	-0.9	-0.6	-1.2	-0.8	-0.5
<b>Growth of value added</b>							
22. Agriculture	1.4	-3.5	1.4	1.8	2.6	2.8	2.9
23. Industry	8.6	8.4	8.5	8.9	7.5	7.9	7.1
24. Construction	13.9	6.9	7.4	6.6	6.8	6.4	6.7
25. Services	4.6	3.7	4.2	4.7	4.9	5.3	5.4

Sources: Ministry of Finance of Estonia, Statistical Office of Estonia, Bank of Estonia

**Table 2****Comparison of economic forecasts**

	GDP growth, %		Consumer price index, %		Current account, % of GDP	
	2004	2005	2004	2005	2004	2005
Ministry of Finance of Estonia	5.3	5.8	3.1	3.0	-13.0	-11.4
European Commission	5.4	5.9	2.8	2.9	-11.5	-9.1
IMF	5.5	5.0	3.0	2.5	-11.0	-7.5
Bank of Estonia	5.2	5.8	4.0	3.4	-11.1	-9.2
Estonian Institute of Economic Research	6.0		3.5		-13.0	

*Sources:**Ministry of Finance of Estonia.**European Commission. Economic Forecast. Spring 2004.**IMF. World Economic Outlook. Advancing Structural Reforms. April 2004.**Bank of Estonia. Economic Forecast. November 2003.**Estonian Institute of Economic Research, Vol 1. March 2004.*

---

## **3. FISCAL FRAMEWORK**

---

### **3.1. Fiscal Policy Goals of General Government**

---

#### *General Government Budget Balance*

Well-balanced budget policy provides an environment, favouring economic development and contributing to the maintenance of economic growth while stabilising inflation and enhancing the confidence of consumers and investors. Despite of the objective to achieve nominal budget balance, our budget policy has turned out to be counter-cyclical in practice and has, therefore, been in conformity with the requirements set in the Stability and Growth Pact. Setting the goal of nominal balance has worked well for Estonia, as major structural changes have taken place in economy, disallowing to assess neither the economic cycle nor budget's cyclical position with sufficient confidence.

The government has set a goal of keeping the general government sector's budget in balance. The government intends to continue with annual balancing, mostly due to ongoing changes in economic environment – for example, increased openness of economy, resulting from the accession with the European Union. The fiscal policy described will help to maintain low debt burden, being one of the pre-requisites for the long-term sustainability of public finances.

#### *No Increase of Tax Burden*

As for the taxes, there will be a shift from direct to indirect taxing and saving of costs while maintaining the simplicity and uniformity of tax policy. The income tax reform which is implemented during the next three years, will help to reduce the tax burden of both the entrepreneurs and individuals; however, taxation of consumption will increase slightly as several rates of excises will increase and the differences in VAT are abolished.

Taxes on labour are relatively high in Estonia. Excessive taxation of labour – the effective tax rate on labour exceeds the OECD average – decreases motivation to work. For this reason income tax rate will be reduced from 26% to 20% and the amount of monthly tax free income will rise from 1000 to 2000 kroons for the next three years. This years we started by increasing the basic exception rate which will amount to 2000 EEK by 2006.

Reduction of taxation of labour is substantiated by the intent to give a positive impulse to labour market development while contributing to the achievement of the goals of the Lisbon strategy. Estonia has already achieved the goal of the Lisbon strategy for year 2010, regarding the employment of the elderly people; the employment rates of women are close to the goals established. Nevertheless, the total employment rates still remain below the established goals. Considering the extension of tax base and improved administrative capacities (incl. the decreases relative share of untaxed salaries), financing of the tax reforms shouldn't be a problem. Economic growth also contributes to tax reforms – revenues of the general government are increasing in nominal terms even as the reduction of income tax receipt is being taken into account.

### *Savings in State Administration and Directing the Expenditures into Economic Development*

A tax cut under balanced budget conditions, set as the goal by the Government, demands saving on expenditures. The goal of the governments saving program is to decrease administrative expenses in ministries, increase control over the budgets of government agencies and create a unified policy for management costs. One of the opportunities for saving costs is to decrease investments in real estate. As social expenditures form the largest category of general government expenditures, the government will conduct a deep case-by-case analysis of social aid to ensure that benefits are received only by those people who really need them.

In addition to the need to finance tax changes, the spending structure also has to be changed; the underlying goal is to decrease the tax burden and thus direct more resources into economic development. Compared to the other EU Member States, the expenditures made on research and development activities are very low in Estonia and need to be increased. It is also intended to channel additional resources for the implementation of active labour market policy. The Government intends to find opportunities for involving private sector in capital consuming projects – for example, involving private capital in investment in research and development activities and implementation of Structural Funds.

### *Long-term Sustainability of Public Finance*

Up to date, Estonia has pursued a conservative budget policy. Nevertheless, public finance needs to be strengthened during the coming period if we want to cope with demographic trends (ageing of the population) and provide long-term sustainability of public finance. A successful pension reform was implemented to meet this purpose; current conservative budget policy will also contribute considerably to the strengthening of the general government's finances in the long run.

### **3.2. Latest Developments in General Government Budget Balance**

---

In 2003 the budget was compiled in the way that the general government sector had a small (384 billion EEK or 0.3%) deficit in its budget with respect to GDP; this was due to pension reform costs and therefore reduced receipt of social insurance. Nevertheless, the very first months revealed that the collection would be considerably better than expected in 2003 (due to the previous year's higher revenue basis and better collection), therefore, resulting in a surplus. Therefore, the government accepted a supplementary balance, amounting to 1% of GDP, on the basis of improved revenue forecast. Allocations for specific purposes contributed largely to the supplementary budget – increased social insurance forecasts enabled to increase expenditures on pensions and Health Insurance Fund; better collection of excise duty on fuel contributed to increased road maintenance costs.

In the middle of the year, favourable developments in collection of revenues prevailed: economic growth accelerated, trade balance deficit affected the collection of value added tax positively, the number of the employed reached a level highest over the last couple of years while rapid growth of average wages resulted in collection of personal income tax and social tax at a level higher than forecasted. **Despite of favourable development in collection of revenues and regardless of surplus, forecasted in summer, the Government decided not to devise the second supplementary budget, keeping the macro-economic stability and increasing foreign trade deficit in mind.**

**In total, the general government surplus amounted to a record amount of 3 billion EEK, which totals to 2.6% of the annual gross domestic product.** Structural surplus grew to 2.3% of GDP (see Annex 3). Like last year, the surplus incurred at central government and social insurance funds' level (respectively, 2.4% and 0.7% of GDP) while the consolidated budget of local governments proceeded with a deficit, as usual – 0.5% of GDP. Deficit of local government increased the debt of general government. The central general government repaid the loans according to the repayment schedules, set earlier and the surplus was used to form a reserve of financial assets.

The budget for 2004 was compiled in conformity with the main goals of economic policy and the general government budget was kept balanced. As in last year, the first months of the year indicated surplus that is attributable to higher revenue basis, but also continuing favourable economic development. This year, annual general government sector surplus is expected to reach 0.7% of GDP.

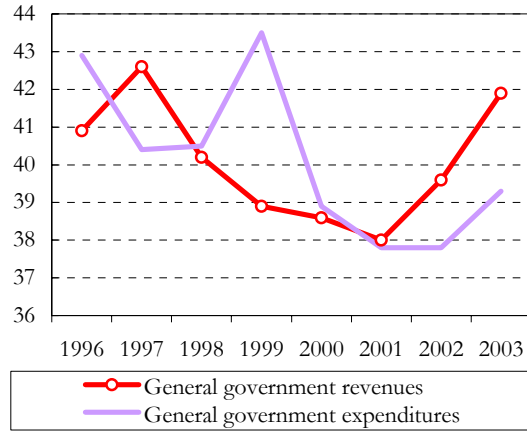


**Figure 7**

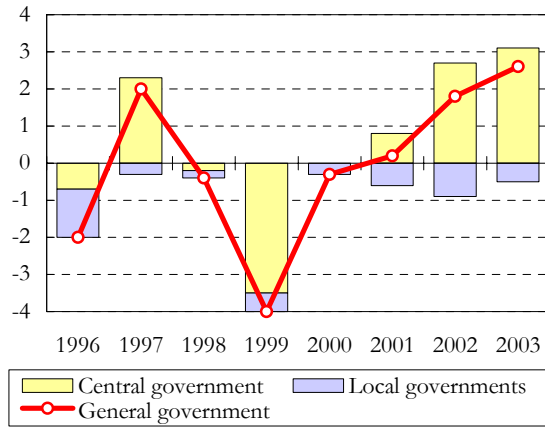
**Main General Government indicators (ESA 95)**

(% of GDP)

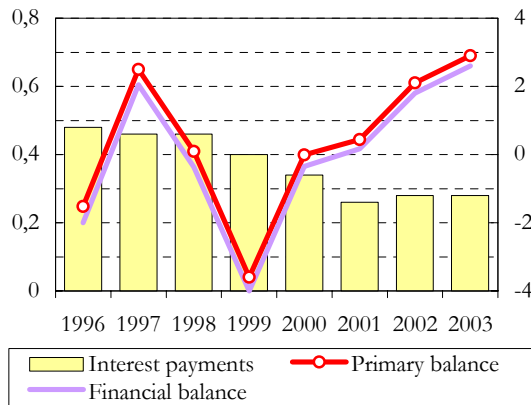
**A. Revenues and Expenditures**



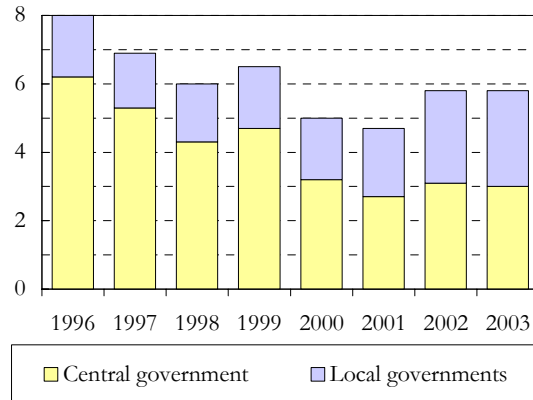
**B. General government balance**



**C. General government primary balance**



**D. General Government Debt**



Sources: Ministry of Finance of Estonia, Statistical Office of Estonia

### 3.3. Development of General Government Debt

The main goal of Estonian fiscal policy is to keep a balanced general government sector budget in the medium term, which results in a low level of debt burden relative to gross domestic product. General government debt reached 5.8% of GDP by the end of 2003, having increased by 0.1 percentage point over the year. Estonian general government sectors debt was 6.7 bln kroons at the end of 2003, out of which the central government debt was 52% (3.7 bln kroons) and the local governments' share was 48%. Foreign debt amount was 55%, or 3.7 bln kroons, 3.3 bln of which belong to the central government and 0.4 bln to local governments. In the latest years local governments were actively borrowing and domestic debt reached 3 bln kroons in 2003.

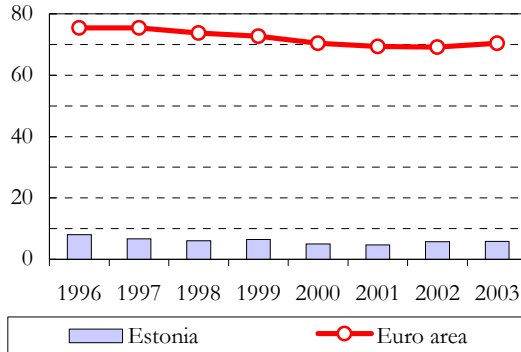
Despite of economical logic (stating that surplus is used to decrease the debt), the general government debt has increased over the last couple of years. The reason can be found in the fact that central government have not used the surplus for prior repayment and decreasing of debt (as, according to international standards, the debt burden is very low) and have instead used the money to increase deposits and establish reserves of liquid financial assets (above all, bonds with low risk level). The debt has increased mainly because of active borrowing of local government to finance their deficit.

**Figure 8**

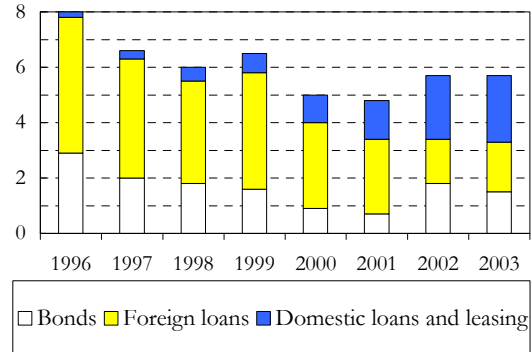
#### Debt burden

(% of GDP)

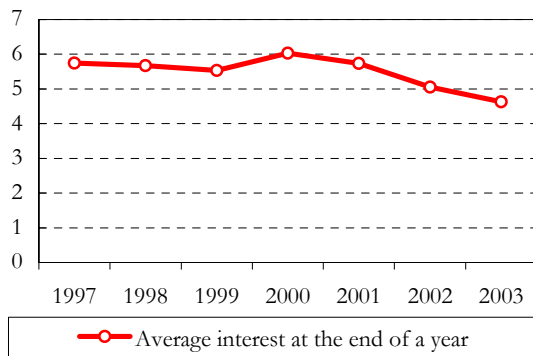
##### A. General government debt



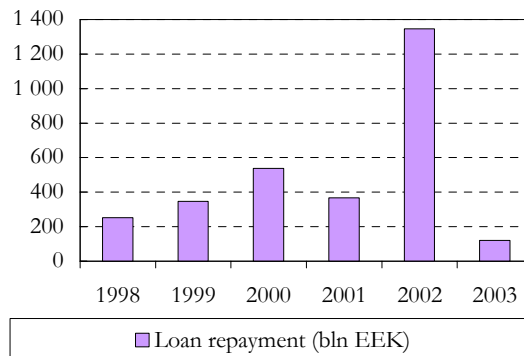
##### B. Debt structure



##### C. Average interest on central government debt



##### D. Repayment of central government loan



Sources: Ministry of Finance of Estonia, Statistical Office of Estonia, Eurostat

Recent years have brought a major change in the debt instruments – in 2002 central government refinanced foreign loans with higher interest rates, mostly taken soon after independence, with eurobonds emission to decrease interest expenditure (emission volume was 100 million Euro or 1.56 billion kroons).

The local governments' share of obligations on bonds has substantially decreased during the recent years. They have mostly financed the repurchase of bonds issued in the beginning of the 90s with loans from local commercial banks, which increased obligations to commercial banks more than 11 times since 1997 (from 166.9 million kroons to 1,863.1 million kroons). As most of the local governments are simply too small to borrow internationally, borrowing from local commercial banks is often the only option to finance deficit. Mostly as a result of the activities of local governments, the volume of leasing and factoring activities in liabilities portfolio grew considerably in the context of local governments, which is attributable to single large-scale projects (factoring contracts were used by Tallinn to to finance one of the biggest investment projects of the city (renovation of Viru Square).

**Table 3****Changes in general government debt in 2003**

	As of December 31, 2002		As of December 31, 2003		Change
	Million EEK	% of GDP	Million EEK	% of GDP	%
<b>General government</b>	<b>6 175.8</b>	<b>5.7</b>	<b>6 705.7</b>	<b>5.8</b>	<b>8.6</b>
Domestic debt	2 837.2	2.6	2 997.7	2.6	5.7
Foreign debt	3 338.6	3.1	3 708.0	3.2	11.1
<b>Central government</b>	<b>3 379.4</b>	<b>3.1</b>	<b>3 484.2</b>	<b>3.0</b>	<b>3.1</b>
Domestic debt	238.1	0.2	197.4	0.2	-17.1
Foreign debt	3 141.3	2.9	3 286.8	2.8	4.6
<b>Local government</b>	<b>2 900.8</b>	<b>2.7</b>	<b>3 221.5</b>	<b>2.8</b>	<b>11.1</b>
Domestic debt	2 703.5	2.5	2 800.3	2.4	3.6
Foreign debt	197.3	0.2	421.2	0.4	113.5

*Source: Ministry of Finance of Estonia*

In the next few years debt burden of the general government sector will decrease even more. By 2008 debt will decrease to 3.2% of GDP. Here it is assumed that recovery of (euro)bonds, emitted by central government, in the volume of 100 million euro, is financed from the available reserves. The decrease will be mostly caused by preservation of a balanced general government budget policy, which means borrowing in the amount of just for repayment of previous loans, practically leaving reserves untouched. If the central government's debt burden is reduced due to the planned balanced budget, the local governments continue with a deficit according to the forecast, and will continue financing deficit with loans (see 3.1.2., General Government Fiscal Forecast). However, the threat on the overall financial position of the central government and also to the aim of central government to maintain a balanced budget will decrease, as several local governments approach the legally set borrowing limit, which prescribes a conservative budgeting policy, and thus, lower levels in borrowing.

**Table 4****General government debt burden of 2003–2008***(% of GDP)*

	2003	2004*	2005*	2006*	2007*	2008*
<b>1. Gross debt level</b>	<b>5.8</b>	<b>5.4</b>	<b>5.1</b>	<b>4.7</b>	<b>3.4</b>	<b>3.2</b>
2. <i>of which:</i> repayments due	0.4	0.4	0.3	0.3	1.4	0.2
3. Change in gross debt	0.1	-0.4	-0.3	-0.4	-1.3	-0.2
<b>Contribution to change in gross debt</b>						
4. Primary balance (-)	-2.9	-1.0	-0.3	-0.3	-0.3	-0.3
5. Interest	0.3	0.3	0.3	0.3	0.3	0.3
6. Nominal GDP growth	-0.5	-0.5	-0.5	-0.4	-0.3	-0.3
7. Other factors influencing debt ratio	3.2	0.5	0.2	0.0	-1.0	0.1
8. <i>of which:</i> exchange rate change	0.0	0.0	0.0	0.0	0.0	0.0
9. <i>of which:</i> privatisation receipts	0.4	0.2	0.1	0.1	0.0	0.0
<b>10. Implicit interest rate on general government debt (%)</b>	<b>4.8</b>	<b>4.9</b>	<b>5.1</b>	<b>5.2</b>	<b>5.2</b>	<b>5.2</b>

*Source: Ministry of Finance of Estonia*

### 3.4. Financial Reserves of the Government

---

Considerable surplus of general government budget in 2003 and, above all, in central government and social insurance funds' sector – the growth of general government reserves has been remarkable. At the end of 2003, central government's financial reserves exceed the central government debt by threefold and reached the amount of 11.1 bill kroons or 9.6% of GDP. From one hand, the reserves have been formed knowledgeably by creating securities against contingencies (including lesser economic growth rate or economic recession) while the purpose of the Stabilisation Reserve is (4.4% of GDP) is to provide financing for projects beneficial for the whole nation, including structural reforms. Reserves of social insurance funds totalled to 2.1 billion kroons (1.8% of GDP). Conservative investment principles (low risk level) are observed for the allocation of financial reserves, aimed at securing the liquidity, value and profitability of financial assets. It is also important to maintain the liquidity of assets provide for the liquidity of market forecasts made. As the principles of balanced general government budget are pursued, the nominal volume of reserves won't increase considerably over the next years; however, as the debt decreases the reserves are expected to exceed the debt even more than today.

At the end of 2003 the central government had reserves and other financial assets in the amount of 11.1 billion kroons. The money was split among the following portfolios:

- State budget reserve 5 884 mill kroons,
- Stabilization reserve 4 438 mill kroons,
- Property reform reserve fund 193 mill kroons,
- Assets of the national fund 582 mill kroons.

**State budget reserve** is a liquidity reserve formed out of state budgets assets, which can be used by the Ministry of Finance to spend on expenditures exceeding the current budget year's revenues. Pension insurance reserve forms a part of state budget cash reserve. The volume of the cash reserve shall be determined separately each year, considering the requirements for smooth cash services and cash flow management arising of annual state budget, the probability for the realization of potential commitments and financing foreign aid. During recent years surplus has increased the cash reserve to a level exceeding the amounts specified by state budgets.

**Stabilisation reserve** was created to decrease contingent economic risks and to restructure resources for achievement of stability. The reserve is increased via the inflow of privatisation funds and other sources of income. Use of reserve resources is conducted after a proposal of the Riigikogu is made. Stabilisation reserve is financed with privatisation income, state budget surplus, inflow of receipts from the Bank of Estonia's profit and interest on the Stabilisation fund itself. In 1998 – 1999, when the Deposits Guarantee fund did not exist, assets of the reserves in the amount of 265.9 mill kroons were paid as compensation to depositors of the bankrupt Maapank, a transaction which represents the only transaction, where the money was withdrawn from the reserve.

**Property Reform Reserves Fund**, which assets were used for repayment, compensation and privatisation and to cover other expenses connected to land and property reform implementation, was formed in accordance with the Use of Funds from Privatisation of Municipal Property Act (Up-to-date name: Use of Privatisation Funds Act). **National Fund assets** portfolio is formed from finances of the European Union already received, but not yet used for projects.

**Health Insurance Fund** has used part of its funds to form **reserve capital** to decrease macroeconomic risks for the health insurance system. The amount of reserve capital must be 8% of budget according to the Health Insurance Fund Act and can be only used in special cases, when proposed by the minister of Social Affairs of the Republic of Estonia. Before making a proposal to the government of Estonia, the minister listens to the opinion of the Health Insurance Funds

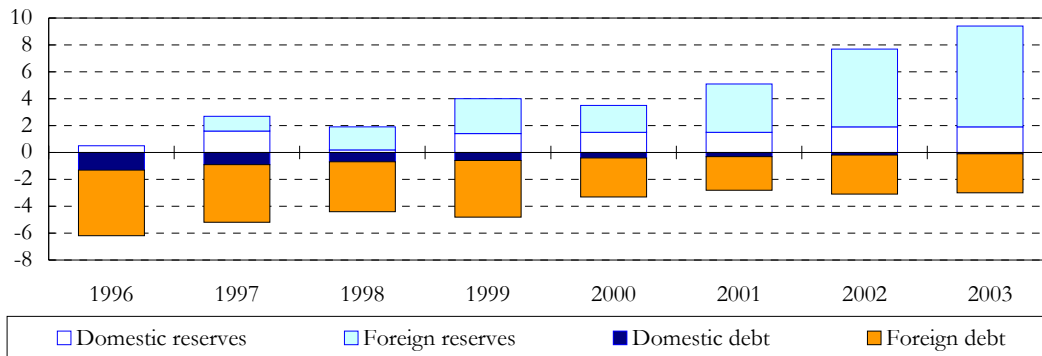
Council. In addition to this, **risk reserve** was employed by healthcare insurance system to decrease its liabilities risks. Volume of the risk reserve is 2% of the budget of Health Insurance and can be used upon a decision of the Council of Health Insurance Fund.

Based on the Unemployment Insurance Act, the **Unemployment Insurance Fund** has formed a **reserve capital** similar to that of the Health Insurance Fund in order to reduce risks from macroeconomic changes. The unemployment fund reserve capital volume is 10% of unemployment fund assets according to the legislation. The reserve capital can only be used in the case of an emergent lack of assets in the unemployment fund after the decision of the board. Before making a respective decision, the board makes a proposal to the national government via the minister to increase the unemployment tax rate to the level, when the unemployment insurance fund can fulfil its goals through sufficient inflow of financial assets.

**Figure 9**

**Central government debt and reserves at the end of the period**

(% of GDP)



Sources: Ministry of Finance of Estonia, Statistical Office of Estonia.

### **3.5. Role of Different Levels of Government and Budget Balances**

---

Estonian **central government** consists of ministries, constitutional institutions and number of public legal entities and foundations (mainly) controlled and financed by central government. Pension insurance also forms a part of central government. The functions of general government are therefore related to the governing of the state; provision of security and public order is also the task of central government. It is the task of central government to organise agriculture, environment protection, infrastructure and culture through different institutions. Social welfare, public health care and education are being organised in cooperation with social insurance funds and local governments. Financial position of central government is most closely related to economic cycle, mostly due to financing – as major share of central government revenues consist of taxes sensitive to economic development. Therefore, central government was the main cause for deficit during the economic recession (for example, in 1999) while recent years are characterised by surplus, due to better collection of taxes. **In coming years, general government intends to keep a small surplus for central government budget despite of deficit caused by pension insurance.**

**Social security funds** include the Health Insurance Fund and Unemployment Insurance Fund. Health Insurance Fund is a social insurance fund that acts according solidarity principle; its function is to ensure financing of health care services. The function of Unemployment Insurance Fund is to pay out unemployment insurance benefits, collective termination of employment contracts benefits and insolvency of employer benefits. Social insurance receipts are used to finance social insurance funds – Health Insurance Fund receives 13/33 of the collected social tax while the Unemployment Insurance Fund is financed from compulsory unemployment insurance contribution which are divided between employer and employee and currently reach to 1.5% of an employee's gross income. From one hand, the level of expenditures of social insurance funds is determined by the volume of revenues collected, from the other hand by legal reserve requirements of the funds. Therefore, the Health Insurance Fund has been in surplus over recent years while the surplus of the Unemployment Insurance Fund is attributable to a low cost level, characteristic of the fund's first years (Unemployment Insurance Fund was established in 2002) and the need to establish a sufficient reserve. **According to the forecasts, social insurance funds will continue with a slight surplus** (*ca* 0.1% of GDP per annum).

The main tasks of local governments are to co-ordinate local life, the primary education system and promote human activities through social benefits. The number of functions delegated to local governments from the central government has increased over the last several years. The latest expenditure item delegated to local governments in 2000 was to decide upon the size of teachers' salaries.

Local government units have a constitutional right for independent budgeting, which implies that they have relative freedom to form budget income and expenditures. Using the possibilities granted by the law, local governments have had a deficit in their budgets, starting since independence with high inflation during the first few years. Share of deficit during recent years exceeded 5% of the local governments' aggregate income. As local governments' budgets regularly show a remarkable deficit, the central government has to compensate for it, forming a state budget with surplus. Local governments' deficit is a price to pay for the central government to achieve the main goal of fiscal policy – a balanced budget for the government sector.

Differences between local governments also become clear in light of the proportionality of the deficit. Most of the time a deficit emerges in bigger towns and regions with multifunctional villages. As the deficits have mostly been financed with privatization receipts until very recently and with loans during the last few years, it becomes clear why Tallinn (the capital) has a large deficit – Tallinn has more assets and infrastructure, which can be sold, and by implication, more privatization

revenues to spend for budgetary needs. Tallinn's share in the local governments' deficit reached 91% of the aggregated deficit of local governments in 2002, while in 2003 even exceed the aggregated deficit of local governments which means that altogether the other local governments had a surplus and the aggregated deficit is attributable to the budget deficit of Tallinn (0.5% of GDP).

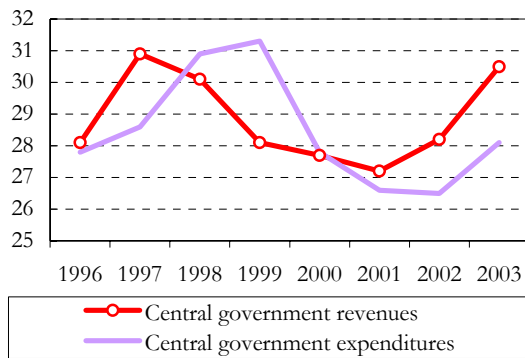
**According to the forecast, the share of general government deficit in GDP is expected to decrease.** Several municipalities (Tallinn as well) established the goal of achieving balanced budgets in the medium term. Also, several municipalities reached borrowing limits, which means a more conservative budgeting line in itself. Amendments to the Rural Municipality and City Budgets Act, devised by the Ministry of Finance of Estonia, have certain influence on the deficit of local governments in the long run as the devised amendments include measures, imposing conservative principles on budgeting.

**Figure 10**

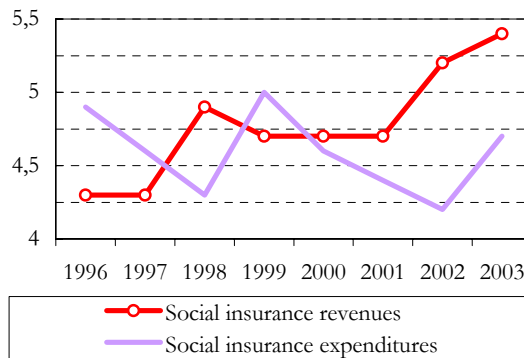
**Government sector fiscal indicators (ESA 95)**

(% of GDP)

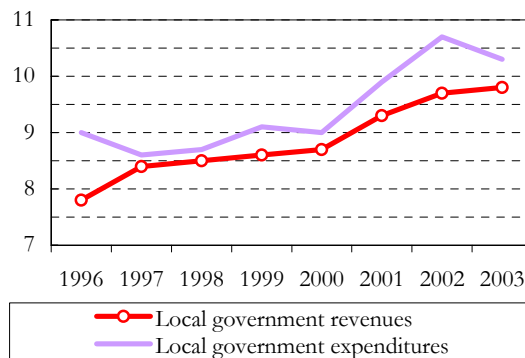
**A. Central government revenues and expenditures**



**B. Social insurance funds' revenues and expenditures**



**C. Local government revenues and expenditures**



Sources: Ministry of Finance of Estonia, Statistical Office of Estonia



---

## **4. SENSITIVITY ANALYSIS AND COMPARISON WITH THE PREVIOUS PROGRAMME**

---

### **4.1. Sensitivity Analysis of General Government Financial Indicators**

---

The goal of sensitivity analysis is to find increase/decrease of income from taxes if GDP real growth increases/decreases one percentage point. It is necessary to proceed with the following steps in order to conduct analysis:

- Defining of the so-called “plus” and “minus” scenarios, which would describe changes in the baseline scenario of economic structure with faster and slower economic growth. This task is important to determine nominal income base.
- Defining the income basis and interdependence of income and tax-base in order to define change in income following a given change in tax-base.

The “plus-scenario” expects quick growth of foreign demand in 2004, which would contribute to increased export volumes of Estonian production and continued strengthening of domestic demand. The basic forecast for both 2004 and 2005 expect the growth of domestic demand to slow down as the result of income tax reform accompanied by lesser growth rate of average wages and general decline in demand for long-term goods (above all, real estate). Growth in investments shall continue as expected and is, to a certain extent, guaranteed and shouldn't therefore remarkably affect changes in economic growth.

The “minus-scenario” expects, above all, notable decline in domestic demand, contributed by increase in prices accompanied by the EU accession and related decline in purchase power. The “minus-scenario” also expects a slower growth in export but this would be somewhat balanced by increased demanded for imported goods, caused by general weakening of purchase power.

The second step of sensitivity analysis used traditional econometric budget income projection methods, which helped to determine deviation from the basic projection of the Ministry of Finance using data from positive and negative scenarios. The data available (until the end of 2003) was used to determine the expected relations between the revenue basis and expected collection of tax revenues in 2004. After that, the data available was supplemented by forecasts for 2004 and new relations between the tax basis and collection of tax revenues were established for 2005. This approach eliminated the possible influence of amendments to legislation, affecting the tax basis. Considering the amendments to legislation, behavioural relations were determined with respect to six different tax types: corporate income tax, personal income tax, fuel excise duty, tobacco excise duty, value added tax and custom duties. As in the case of the first four tax types specified the changes in behavioural relations are directly attributable to changes in tax rates, the collection is affected by changing legislation in the case of value added tax and custom duties.

**Table 5****Sensitivity of tax revenues of general government to GDP growth changes***(million EEK)*

	2004			2005		
	Baseline scenario	Difference		Baseline scenario	Difference	
		+	-		+	-
<b>Real growth of GDP, %</b>	<b>5.3</b>	<b>6.3</b>	<b>4.3</b>	<b>5.8</b>	<b>6.8</b>	<b>4.8</b>
<b>Taxes and social security contribution</b>	<b>47 721.5</b>	<b>606.1</b>	<b>-688.2</b>	<b>49 442.5</b>	<b>664.4</b>	<b>-754.6</b>
Personal income tax	9 052.0	91.3	-103.7	8 965.0	81.0	-92.0
Corporate income tax	2 530.0	85.0	-96.6	2 480.0	93.0	-105.6
Social security contribution	15 565.0	194.0	-220.4	16 750.0	208.7	-237.1
Tax on heavy trucks	60.0	0.9	-0.9	65.0	0.9	-0.9
VAT	12 500.0	148.0	-168.1	14 500.0	183.2	-208.2
Excise duties	5 150.0	83.0	-94.3	5 705.5	92.2	-104.8
<i>Alcohol excises</i>	<i>1 535.0</i>	<i>7.0</i>	<i>-8.0</i>	<i>1 680.0</i>	<i>7.7</i>	<i>-8.8</i>
<i>Tobacco excise</i>	<i>1 005.0</i>	<i>5.1</i>	<i>-5.8</i>	<i>1 095.0</i>	<i>5.9</i>	<i>-6.7</i>
<i>Fuel excise</i>	<i>2 610.0</i>	<i>70.9</i>	<i>-80.5</i>	<i>2 930.0</i>	<i>78.6</i>	<i>-89.3</i>
<i>Packaging excise</i>	<i>0.5</i>	<i>0.0</i>	<i>0.0</i>	<i>0.5</i>	<i>0.0</i>	<i>-0.0</i>
Gambling tax	190.0	1.1	-1.2	195.0	1.1	-1.3
Custom duties	144.0	2.0	-2.2	212.0	3.4	-3.8
Land tax	450.0	0.0	0.0	480.0	0.0	-0.0
Local taxes	80.0	0.8	-0.8	90.0	0.9	-0.9

*Source: Ministry of Finance of Estonia*

## 4.2. Comparison with the Previous Programme

Estonia's most recent macro-economic developments have been rather similar to the forecasts given in Pre-accession Economic Programme (PEP) for 2003. Weak external environment caused Estonia's economic growth to slow down, as expected, in 2003 but nevertheless the growth continued at a faster rate than provided in PEP. Compared to the EU, economic growth was, however, rapid. Inflation developed as expected and increase in prices somewhat slowed but nevertheless the growth in consumer price index remained below the forecasted level. Inflation slowdown is mostly attributable to cheaper foodstuffs and, during the second half of the year, also cheapening engine fuel.

Weak foreign demand and rapid growth in domestic demand caused the current account deficit to be higher than expected. Large current account deficit was balanced by general government surplus that turned out to be considerably larger than expected, mostly because of strong revenue performance. In 2003, Estonia's general government budget surplus reached 2.6% which is the best yet indicator among the former and new EU Member States. A small surplus is also expected this year. Based on the government's objective for balanced budget, the forecast budget positions for the coming years remain unchanged.

Although the general government budget surplus was larger than expected, debt burden still remained at a level higher than estimated in PEP for the last year. This is mostly attributable to active borrowing activities of local governments. However, the government did not use the budget surplus for loan repayment, as our loan burden is remarkably small in international context. The budget surplus was used to increase the liquid reserves.

**Table 6**

### Comparison with Pre-accession Economic Programme 2003

(million EEK)

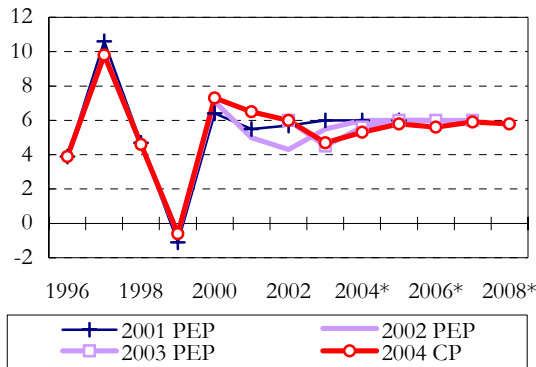
	2003	2004	2005	2006	2007	2008
<b>Economic growth, %</b>						
Pre-accession Economic Programme 2003	4.5	5.6	6.0	6.0	6.0	–
Convergence Programme 2004	4.7	5.3	5.8	5.6	5.9	5.8
Divergence	0.2	-0.3	-0.2	-0.4	-0.1	...
<b>General government budget balance, % of GDP</b>						
Pre-accession Economic Programme 2003	0.4	0.0	0.0	0.0	0.0	–
Convergence Programme 2004	2.6	0.7	0.0	0.0	0.0	0.0
Divergence	2.2	0.7	0.0	0.0	0.0	...
<b>General government debt, % of GDP</b>						
Pre-accession Economic Programme 2003	5.5	5.2	4.9	4.6	3.1	–
Convergence Programme 2004	5.8	5.4	5.1	4.7	3.4	3.2
Divergence	0.3	0.2	0.2	0.1	0.3	...

Source: Ministry of Finance of Estonia

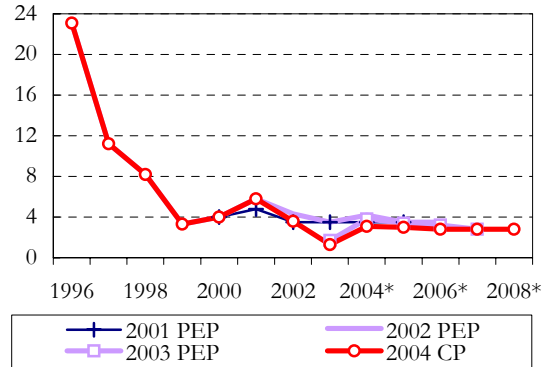
**Figure 11**

**Divergence of Convergence Programme 2004 (CP) estimated from Pre-accession Economic Programmes (PEP) 2001, 2002 and 2003**

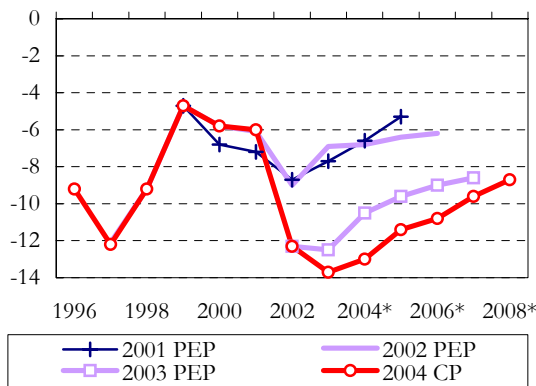
**A. Economic growth (%)**



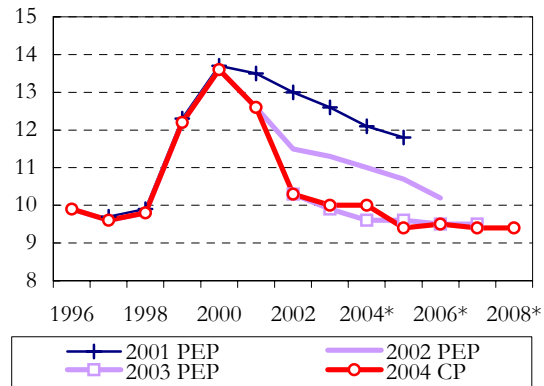
**B. Inflation (%)**



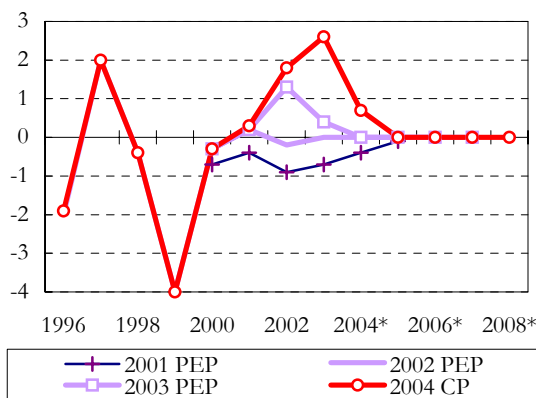
**C. Current account balance (% of GDP)**



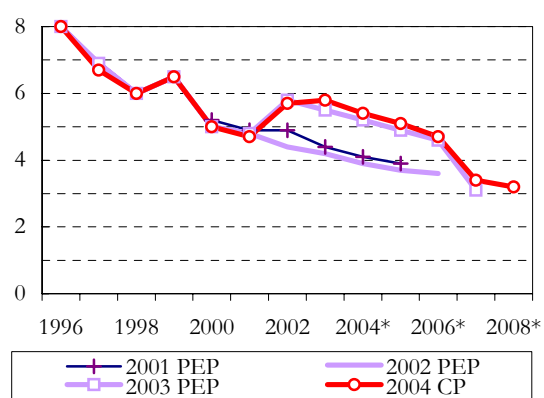
**D. Unemployment (%)**



**E. Budget balance ESA 95 (% of GDP)**



**F. General government debt ESA 95 (% of GDP)**



Sources: Ministry of Finance of Estonia, Statistical Office of Estonia, Bank of Estonia

---

## 5. THE QUALITY OF PUBLIC FINANCE

---

### 5.1. Forecast of Public Finance up to 2008

---

Larger than expected collection of revenues for the general government sector in 2004 may bring a general government surplus of 0.7% of GDP. Budget conditions of the general government have constantly improved throughout the latest years but mostly due to economic developments more favourable than expected and less objective-linked general government surplus. **In years 2002 and 2003 the large general government surplus has helped to balance a record current account deficit; in coming years the deficit is expected to decline due to the development of exports sector and therefore, the general government can decrease the surplus without taking additional risks.**

The price paid by the central government for the fiscal policy goal achievement is rather high, given the traditionally expected deficit of local governments' budget. Therefore it could be stated that the price is reflected in an amount available for the general government to plan revenues and expenditures to balance the budget of local governments. Deficit trend of local governments is still showing a decline – the deficit level of recent years – 0.5 – 0.6% of GDP will decrease to a level of 0.2 – 0.3% of GDP, showing from one hand the strengthened fiscal discipline and more responsible application of budget policy at local government level and from the other hand, referring that the limits for borrowing are taking effect and local governments have to adopt more conservative budgeting principles. The forecast also considers measures taken by the central government to deal with local governments include preparation of the local governments' bankruptcy act which should have positive effect in budget discipline of local governments

In coming years, the second challenge for the general government is to cover up the pension insurance first pillar's deficit. Amendment to the Pension Insurance Act (exceptional pension rise of 100 kroons each year), endorsed by the Riigikogu in spring 2004, shall increase old-age pension by *ca* 1000 kroons over three years (combined with the planned indexation); however, such a decision contributes to pension insurance deficit. Pension insurance reserves will be exhausted by 2006; therefore, additional resources need to be channelled into the system. In the years 2006–2007 the pension insurance runs in a considerable deficit (*ca* 0.7% of GDP) while the application of conservative index should change the situation later.

Budgets of social security funds are planned with small surplus for future years. Unemployment Insurance Fund and Health Insurance Fund are expected to replenish their reserves as required and in a volume equivalent to general economic growth. Existence of reserves guarantees payments of social benefits even when negative scenario should realise and revenues of social security funds decline. To achieve the limits on reserves stated by law the budget of Medical Insurance Fund is planned with surplus. In case of Unemployment Insurance Fund it is assumed, that its reserve will remain at the level of year-end of 2004 as from 2005 the unemployment insurance contribution rates are expected to drop to a minimum level which should therefore cover the current expenses. Together with economic growth the reserve will therefore increase and Unemployment Reserve should have a small budget surplus.

**Table 7****General government budget for 2003–2008***(% of GDP)*

	2003	2004*	2005*	2006*	2007*	2008*
<b>Budget balance (B9) by sub-sectors</b>						
<b>1. General government</b>	2,6	0,7	0,0	0,0	0,0	0,0
2. Central government	2,4	0,6	0,1	0,1	0,1	0,1
<i>Of which: pension insurance contribution</i>	0,2	-0,3	-0,5	-0,7	-0,7	-0,6
3. State government	-	-	-	-	-	-
4. Local government	-0,5	-0,3	-0,2	-0,2	-0,2	-0,2
5. Social security funds	0,7	0,4	0,1	0,1	0,1	0,1
<b>General government (S13)</b>						
6. Total receipts	41,9	44,0	42,7	41,9	40,3	39,7
7. Total expenditures	39,3	43,3	42,7	41,9	40,3	39,7
8. Budget balance	2,6	0,7	0,0	0,0	0,0	0,0
9. Interest payments	0,3	0,3	0,3	0,3	0,3	0,3
10. Primary balance	2,9	1,0	0,3	0,3	0,3	0,3
<b>Components of revenues</b>						
11. Taxes	23,3	23,7	23,5	22,5	21,8	21,7
12. Social contributions	12,3	12,0	11,4	11,2	11,1	11,1
13. Other revenues	6,3	8,2	7,9	8,2	7,4	6,9
<b>14. Total receipts</b>	<b>41,9</b>	<b>44,0</b>	<b>42,7</b>	<b>41,9</b>	<b>40,3</b>	<b>39,7</b>
<b>Components of expenditures</b>						
15. Collective consumption	8,8	9,4	9,3	9,0	8,2	8,0
16. Social benefits in kind	9,8	10,2	10,0	9,9	9,9	9,8
17. Social transfers other than in kind	13,8	14,6	14,6	14,5	14,4	14,4
18. Interests	0,3	0,3	0,3	0,3	0,3	0,3
19. Subsidies	1,2	1,4	1,6	1,6	1,6	1,6
20. Gross fixed capital formation	4,1	5,0	4,7	4,6	4,2	4,2
21. Other expenditures	1,3	2,3	2,2	2,0	1,7	1,4
<b>22. Total expenditures</b>	<b>39,3</b>	<b>43,3</b>	<b>42,7</b>	<b>41,9</b>	<b>40,3</b>	<b>39,7</b>

Sources: Ministry of Finance of Estonia, Statistical Office of Estonia

## 5.2. General Government Revenues

---

### 5.2.1. Structure of General Government Revenues

In years 1996-2003, the average ratio of general government revenues to GDP amounted to 38.5%. Single noticeable fluctuations before 2000 were mostly caused by single, so-called exceptional receipts, gained from the sales of enterprises with state participation. Over the last three years the ratio of general government revenues to GDP has been steadily growing, exceeding the level of 40% of GDP in 2003. Increase in share of revenues is attributable to good collection of tax revenues – while in 2001-2003 GDP in current prices increased 18.6%, the respective indicator for the collection of tax revenues in general government budget reached 30.7%. Strong growth of tax revenues was due to increase in VAT (domestic demand) and receipt of corporate income tax, related to active payment of dividends, supported by stably rapid growth in section of all the tax types.

Approximately 80% of general government revenues are contributed by three taxes: social insurance, income tax and VAT. Social security contributions contribute the largest share (*ca* 30%) of general government revenues as these are paid by an employer on wages earned by employee and are therefore directly related to the growth of average gross wages and employment rates. The relative share of income tax was almost equivalent to social insurance contribution until 1999 and dropped later. This is explained by increased basic exemption. In comparison – in 2003, income tax contributed 22.6% of general government revenues while in 1999 the respective share was 27.6%.

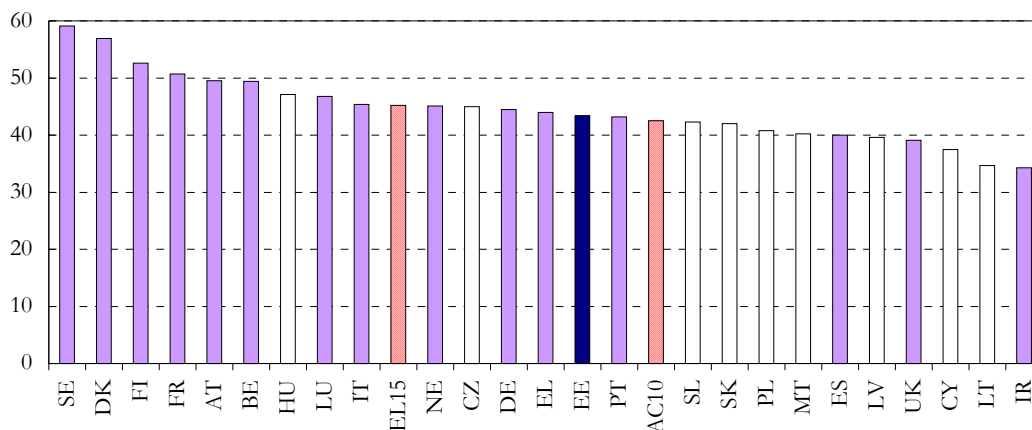
VAT is also an important source of income; the collection of VAT depends on domestic demand and foreign trade and therefore gives a good reflection of the country's economic situation. In 1996-2003, VAT collection contributed 23–24% of general government revenues. Excise duties, land tax, gambling tax, custom duties and local taxes are also collected to general government budget but their contribution to total revenues only reaches *ca* 10%.

In addition to tax revenues, several non-tax revenues are also paid to general government budget, for example: state fees, receipts from economic activities of enterprises with state participation, receipts from sales of state-owned assets, proprietary income, fines payable, loans taken and supports and subsidies. In 2003, non-tax revenues contributed 14.6% of general government budget, being the next-important source of income after the three tax types mentioned above. Foreign assistance funds, allocated by the European Union, should increase the share of non-tax revenues on general government budget while reducing the share of tax revenues.

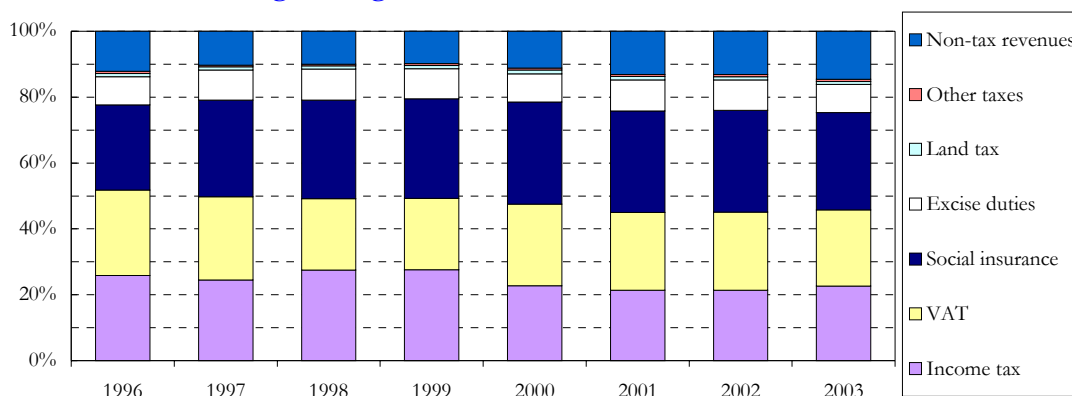
**Figure 12**

**General government revenues and their structure**  
(% of GDP)

**A. Estonian general government revenues compared with other EU Member States, 2004**



**B. Structure of Estonian general government revenues**



Sources: European Commission, Ministry of Finance of Estonia

**5.2.2. Expected Developments of Tax Policy**

The purpose of tax system, imposed as of 1994, has been to motivate entrepreneurship and business while taxing consumption more than labour. At the same time attempts have been made to keep the system simple, understandable and transparent, with as little exceptions and differences as possible. **As our today's tax system has provided for economic growth and a functioning state, there is no direct need for reforming the system.**

**Reducing the Labour Taxation**

Tax burden on capital has decreased all over the world over the last 10-15 years and shifted to labour, therefore increasing the prices of labour and production input and inhibiting the creation of new jobs. The government intends to decrease the tax burden on labour and has therefore endorsed the amendment to Income Tax Act, gradually increasing the basic exemption and reducing tax rates in such a way as from 2006, basic exemption would be 24,000 per annum and income tax rate 20% from year 2007; this applies for both the personal and corporate income. The goal here is to apply unified tax rates for the taxation of personal and corporate income. Until the



end of the aforementioned period, corporate income is taxed at distribution and according to the amounts distributed, not as the profit is earned. Steps are gradually taken to avoid double taxation of dividends (from today's 20 per cent to 10 per cent participation). Tax rates applicable to capital leaving Estonia will also be reduced (interests, royalties, dividends); this is mostly attributable to tighter international competition as the Estonian economy is still in need of foreign investments. Income tax reform also includes abolishment of deductions to balance the deficit accompanying increasing basic exemption.

High tax burden on labour is mostly due to high social insurance rates and additional unemployment insurance contributions (social insurance should be described more like a compulsory insurance than a state tax). High tax rate is mostly attributable to ageing of population – people working today need to save for retirement while providing the today's retired citizens with an income (pension) providing them with normal living. In the future options should be sought to cut social insurance contributions and taxes.

Principles for taxing of land will remain the same; for the tax-payer this means increasing tax amounts and for two main reasons: councils of local governments have not used all their options for increasing tax rates and as land tax is based on market price, the next round of evaluation (no later than in 2007) shall be accompanied by increased land tax in 2008.

### *Taxation of Consumption and Ecological Tax Reform*

The contribution of indirect taxes or consumption taxes to tax collection is continuing to increase. Here the purpose is to retain the today's standard value added tax rate – 18% - therefore, reduced rates shall not be applied on any goods or services.

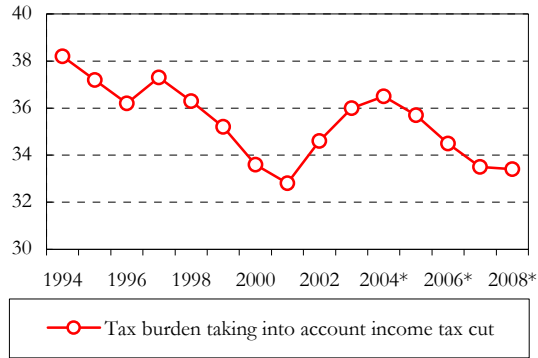
The elaboration of both the VAT and excise policy is the function of the European Union while the Member States are also given some choices. As for fuel excise duties, the idea is to continue with limited differences as this provides better pre-requisites for tax collection while minimising the options for avoiding taxes. The next intended rise of excise duty on energy products is expected to take place in 2008, with the purpose to achieve the compulsory minimum rates in liquid fuels by 2010. Also, excise taxes imposed on tobacco will continue to grow annually (as of July 1) to achieve the compulsory minimum rates by 2010. The plans don't include increasing excise duties on cigars and cigarillos over that period.

According to the coalition agreement, the concept of ecological tax reform is being prepared for public discussion as one environmental policy and strategy step; the concept includes shifting the focus from taxing of revenues to taxing of the utilisation of natural reserves and nature pollution. The purpose of ecological tax reform is to shift the tax basis from labour to environment. Cooperation with the Ministry of Finance and the Ministry of Economic Affairs and Communications should result in the optimum method for re-structuration of taxes and imposing of possible new environmental taxes while not increasing the general tax burden.

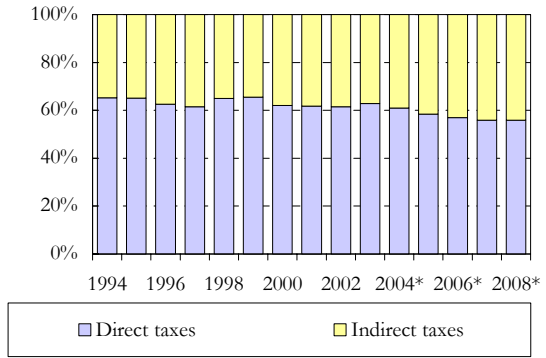
**Figure 13**

**Development of tax burden in Estonia**  
(% of GDP)

**A. Tax burden**



**B. Direct and indirect taxes**



Sources: Ministry of Finance of Estonia, Statistical Office of Estonia

### 5.3. General Government Expenditures

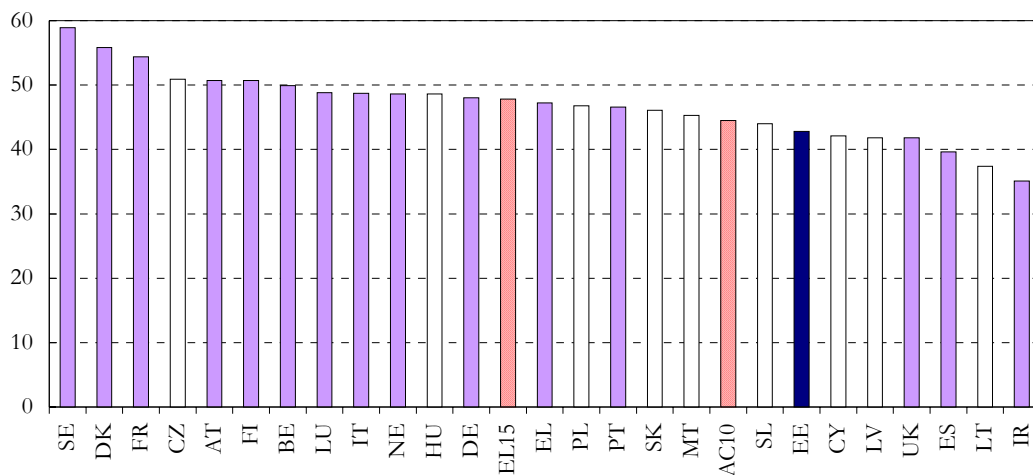
#### 5.3.1. Structure of General Government Expenditures

From the very first years of independence, the ratio of general government expenditures to GDP has been close to 40% of GDP. In recent years the level of expenditures has shown a slight increase while in 2003, spending reached 39.2% of GDP. Despite the one-off financing items (including EU funds) having an expansionary effect on expenditures, increase in revenues has been even faster and the surplus has increased. However, main changes with respect to expenditures and GDP are attributable to changes in macro-economic situation. From the other hand, impact of political influences is clearly distinguishable in several years. During the periods of fast economic development the share of expenditures to GDP has been lower while at lesser growth rates the ratio of expenditures and GDP has started to increase, meaning that the policy has been counter-cyclical.

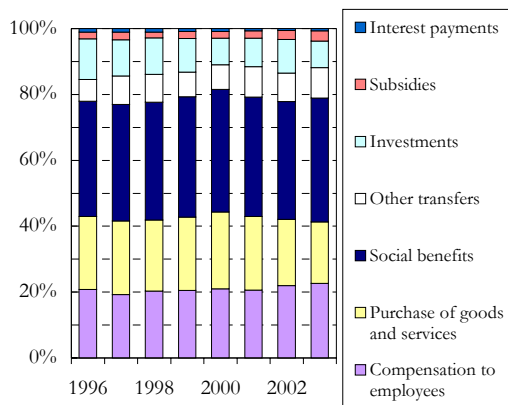
**Figure 14**

**General government expenditures and their structure**  
(% of GDP)

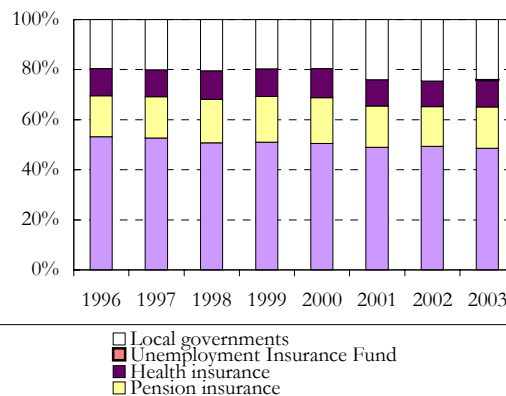
#### A. Estonian general government expenditures compared with other EU Member States, 2004



#### B. By economic meaning



#### C. By sub-sectors



Sources: European Commission, Ministry of Finance of Estonia

Transfers to households through different social benefits contribute the largest share (approximately 40%) of general government expenditures. Pensions represent the largest group of expenditures, followed by medical treatment expenses, health care procedures, sickness benefits paid by Health Insurance Fund and compensations for medicines. Subsistence benefits and subsidies to disabled people also make up a considerable share.

Expenditures on general government's employees (wages and taxes and fees paid on wages) contribute *ca* one fifth of total expenditures; expenditures on goods and services purchased by general government are largely equivalent to this amount.

Expenditures made on investments and capital renovations and repairs contribute less than a tenth of general government expenditures. Compared to the respective European Union average, the share of capital expenditures is somewhat larger but this is attributable to investment needs characterising a transition economy. Pre-accession funds of the EU also play an important role here – co-financing have also contributed notably to total expenditures.

Other expenditures consist of interests due, subsidies to business enterprises and allocations to various non-profit organisations (public legal entities, foundations, non-profit associations, international organisations).

### 5.3.2. Changes in Expenditure Policies

#### *Improving the Effectiveness of Social Expenditures*

Transfers, including various social benefits, represent the largest share of general government expenditures. The government intends to increase the expedience of social benefits by checking whether those really in need will only receive the benefits. Welfare concept, endorsed by the government in April 2004 was devised for that purpose. The concept sets out measures intended to be taken to improve the social situation of the population in coming years; the implementation of the concept is expected to contribute to alleviation of poverty and improving population's living standard.

The purpose of social benefits is to contribute to coping of needy people at a level ensuring decent living. At the same time subsistence benefit is supposed to be the last measure for the mitigation of poverty. As for employable people, employment is the best protection against poverty. For example, it is intended to raise the subsistence level in 2005 while taking the monthly family benefits into account when paying the benefits. The plans also include the assessment of the potential beneficiary's household's situation, needs and possibilities, but also their material situation. This is expected to avoid a situation where benefits are paid to people not needing them. Expenditures thus saved would help to increase the rates of benefits.

#### *Increase of Expenditures on Research and Development Activities*

Support for research and development (R&D) and innovation is Estonia's national and government's strategic priority to achieve long-term economic competitiveness and to shift the Estonian economy from investment based to innovation based. Here, the main problem is the low contribution of Estonian enterprises and research and development institutions to research and development (R&D) activities. In 1996-1999, R&D expenditures amounted to 0.6% of GDP, which is very low in international comparison.

The *Riigikogu* approved the Estonian research and development strategy "**Estonia based on knowledge**" on December 6, 2001, which is a framework document for state R&D policy. The strategy focuses on economic competitiveness and social welfare. In order to achieve the strategic

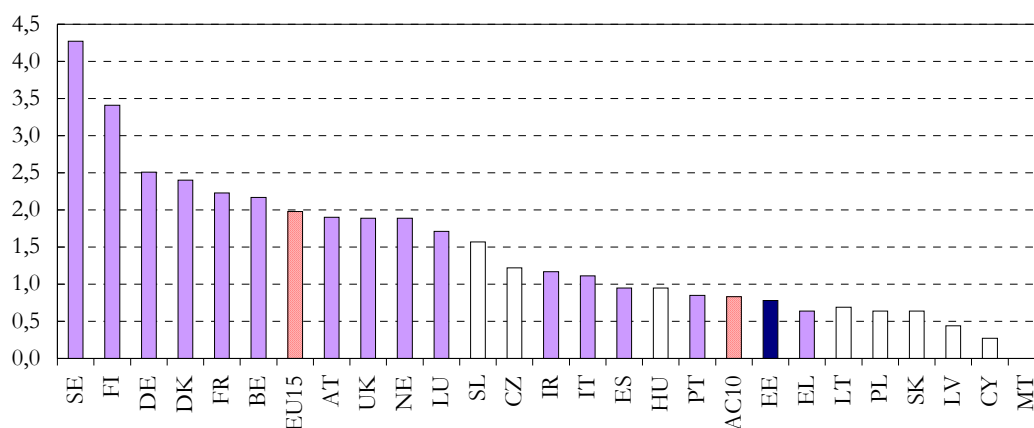
goals, it is planned to increase total R&D expenditure to the 1.5% level of GDP in 2006, which would bring Estonia closer to the average of EU members (1.9% of GDP in 2000).

As of 2001, R&D expenditures have shown a steady rising trend and reached 0.81% of GDP in 2002. Here, the most notable development is the development of leading research centres that could be seen as an attempt to systemise research and development activities and stimulate top-level research and cooperation between research groups, incl. the business sector. Infrastructure involving the buildings and equipment of higher education, research and development activities and innovation are seen as a priority; the government has launched a program to modernise these facilities. Next year the government intends to initiate a state programme “Leading research centres” for more purposeful development of leading research centres.

**Figure 15**

**Research and development expenditures compared with the other EU Member States**

(% of GDP)



Source: Eurostat.

**Real Estate Policy**

State’s real estate policy involves the principle for the management and administration of real estate belonging to the state. In 2001, a public limited State Real Estate Company was established for better administration of such property; today, the state still holds the company 100%. Real estate administration activities, managed by one trading company, should give the most economic results at the most optimum level of expenditures. Common management enables the state to channel its resources into the maintenance and improvement of its property in a more balanced way. The established of the public limited company was also justified by the need to cut down the expenditures on the organisation of real estate administration and maximisation of revenues collected from leased property through an aggregated portfolio. Cheap financing from credit institutions by using a common investment concept is also important. Today, State Real Estate Company manages 92 objects that are mostly leased to state authorities.

The main purpose of real estate policy is to provide for more effective use of real estate owned by state while decreasing the administration costs and increasing the value of real estate and disposing of unnecessary real estate. The measures to be adopted to that end within the national real estate policy are the following:

- o Inventory of real estate and land owned by the state to assess the existence, situation and value of the aforementioned assets.

- Determination of the state's needs – determination of real estate objects having no value for the state and definition of the principles for the realisation of such object, elaboration of optimum procedures for the administration of assets.
- Definition of real estate administration model and entity responsible for administration – real estate object with similar parameters should be concentrated under the same administrative unit to achieve economies of scale.
- Establishment of real estate development and investment principles – non-budgetary assets should be used instead of budgetary for investments made in commercial real estate.
- State real estate portfolio should be compiled, considering the needs of the state; unnecessary real estate should be disposed of and the assets thus received are to be used to improve the real estate portfolio's quality.
- Leasing principles should be devised for different groups/types of real estate.

---

## 5.4. Changes in Budgeting Process and Supervision

---

### 5.4.1. Budget Reform

In recent years the general government budgeting process has been constantly changing with the purpose to shift the focus from cost-oriented development and implementation of state budget to a performance-based budgeting or, in other words, achieve a situation where the budgets of agencies are devised on the basis of intended objectives and linked to performance indicator which provide for their measuring. Indicators allow both the head of an agency, budget unit, auditor and the public in general assess whether the objectives have been achieved and how has the taxpayers' money been used.

Changes have resulted in a less detailed State Budget Act that grants the Government of the Republic, ministers and heads of institution more freedom for the utilisation of budgetary assets. Since 2001, each governmental authority is required to devise an action plan, providing an overview of activities planned to be taken to achieve the established objectives, to balance the greater freedom and make the authorities accountable for their performance. Government authorities are expected to report about their performance and implementation of the budget at the end of each budget year.

One of the important changes is adding the mid-term perspective to budgeting expenditures and revenues (later, also to financing transactions) in 2000. The state budget strategy, devised each spring for 1+3 years, provides a framework for the preparation of draft state budget and links the priorities of the Government of the Republic with the plans of ministries, using the fiscal policy objectives as a basis.

The state budget strategy for 2004-2007 was the first document to describe the plans of ministries by performance areas which could involve the activities of several ministries. State budget strategy for 2005-2008 is prepared as a ministry-based document involving several activities and operation areas, showing the links between the operation areas of various ministries. Ministry-based approach avoid obscure areas with respect to accountability and the minister is responsible both for setting of the objectives and efficient use of budget funds allocated for the achievement thereof.

As the state budget strategy for 2005-2008 was devised, constitutional institutions and the State Chancellery and ministries were asked to set out their main achievements, problems, measurable objectives and measures necessary for achieving the objectives and their cost until year 2008 by areas of activity. As the common process for the development of strategic development plans of ministries is launched, state budget strategy is going to be prepared on the basis of existing development plans of ministries; this would avoid a situation where the processes for the development of state budget strategy and organisation-based strategies are different processes. Convergence of preparation of state budget strategy and national development plans should contribute to similar treatment of priorities and more focused allocation of budgetary resources. When the process is additionally supported by the development of performance-based budgeting methodologies, this should create the pre-requisites for linking up objectives set out in strategy and resources required for their implementation, therefore providing the necessary support for passing of performance-oriented management decisions. This would help to clear a situation where strategy serves no substantial purpose and is observed as a process separate from budgeting.

### 5.4.2. Internal Audit

The purpose of audit is to provide for an early detection of the deviation from established requirements and possible violation of financial management legality, economy, efficiency and

effectiveness principles and allow for adoption of corrective measures, realisation of accountability requirements of reporting entities and apply measures to avoid duplication of such violations.

According to the Authorised Public Accountants Act, auditing means the examination of financial statements and the provision of an opinion pertaining thereto according to the auditing rules. Internal audit is an activity which should give assurance and consultations and is mostly meant for the head of an institution and is supposed to improve institution's activities while creating added value.

According to the vision of the public sector's internal audit function, internal audit should add to the assurance of taxpayers, Government of the Republic and management of public sector institution that optimum control measures are applied to manage risks endangering the achievement of set objectives, resources are well-protected and used in an economic, efficient and effective way and routine activities of an institution comply with regulations in force and reporting is reliable.

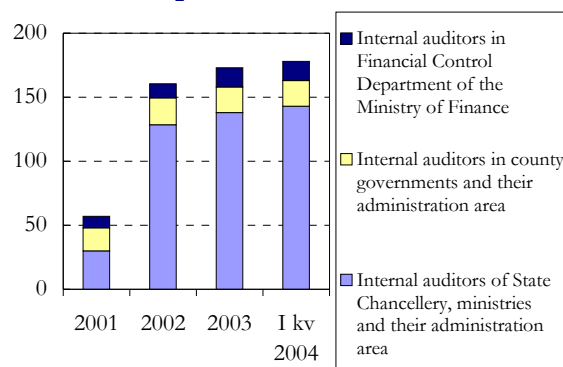
The main priority in internal audit development is to increase the importance of internal audit function to secure financial accuracy of public finance and prevention of corruption. Here, the development and implementation of public financial control systems within institutions and increasing share of financial audit is seen as the main driving engine. When fighting corruption, internal auditors are supposed to pay attention to internal control system elements which restrict the abuse of their position, forbidden transactions, conflict of interests, etc.

General government internal audit function analyses priority areas, supported by the results of annual risk assessment. Assessment of risks in all the institution and consolidation of results provide a precondition for the achievement of the aforementioned objective. Risks shall be assessed in all the authorities of executive power and the results of assessment are used to improve the internal control system applicable for risk management.

Internal auditors of 158 authorities of executive power play an important role in devising a justified and true and fair state budget as their evaluation is used by devisers of budget to make well-justified decisions. Evaluation to the accuracy of annual accounts of public sector accounting entities and legality of transactions contributes considerably to the achievement of the objective. Organisation of training courses on internal audit and exchange of practical skills and experiences through joint audits and harmonised methodologies, relying upon the scope of the audit pyramid as a whole, are still of considerable importance.

**Figure 16**

### Number of internal auditor in I quarter of 2004



Sources: Ministry of Finance of Estonia, Statistical Office of Estonia



Internal audit development has been considerable and this has been proven by evaluations carried out by external experts. Government institution should observe the best practice and specific features of its area when determining the performance principles of internal audit within their administrative area and ensuring the implementation thereof. Internal audit function development and coordination of governing and administration area serve as the impulse for effective implementation of audit pyramid principle. Internal audit network development should ensure the full implementation of audit pyramid where the basis of the pyramid is formed by internal auditors of state agencies under the administration of government agencies, the second level consists of internal audit units of ministries, county governments and State Chancellery and third of Financial Control Department of the Ministry of Finance while the pyramid is topped by State Audit Office. Audit pyramid stand for a principle of organising work in such a way that auditor of the next institutional level can support on the work carried out by auditor of previous level in the interest of economic utilisation of resources and ensuring control which is as extensive as possible (as much as possible).

Evaluation of organisation of internal audit in authorities of executive power is conducted annually to improve the quality of general government internal audit function. Persons responsible for internal audit shall apply the quality assurance and improvement programme, stipulated in international internal audit standards (IIA standard 1300). It is the task of Financial Control Department to gather the best practice available and forward it to government institutions.

Timely, fast and easy access to information serves as a critical success factor here. Implementation of an electronic information exchange and reporting system which would considerably simplify the submission of internal audit strategic and work schedules and six-month reports is planned to improve the movement and availability of information.

---

## **6. LONG-TERM SUSTAINABILITY OF PUBLIC FINANCE**

---

### **Problem – Ageing of the Population**

The Estonian population is ageing similar to that of the EU. Common to most developed countries, ageing of the population brings a decrease in the relationship between the employed and the retired (system dependence rate). The dependence rate in Estonia, which was 2 in 1992, has now decreased to 1.8. According to projections it could decrease to 1.27 by 2050. Thus, the usual pay-as-you-go (PAYG; I Pillar in Estonia) pension insurance system cannot provide a normal quality of life to the retired and the ratio of the average pension to average salary decreases. Preservation of such a system would bring an increase in the general government debt if pensions were paid on the same basis, which was already 62.5% of GDP in the EU in 2003. Estonia is in a better position due to its conservative budgetary policy. Our general government debt level was 5.8% of GDP in 2003.

### **Policy – Pension Reform**

Ageing of the population and the need to support national pension system financial credibility call for reformation of the PAYG pension systems of EU member states and candidate countries. Estonia raised the retirement age, adopted indexation of pensions and implemented an obligatory pre-financed pension savings system to ensure the financial credibility of pension insurance. In addition, pension is tied to persons social contributions since 1999, which ensures that I Pillar part of pension also depends on individual input.

The Pension Act, which came into force in 2000, enforced a rise of the pension age and gradual elimination of the pension age difference between the gender. A common pension age for men and women of 63 years will be achieved in 2016.

Pension indexation, starting in 2002 allows to make pension's growth dependent on the real situation in the country and its possibilities. Pensions will rise annually based on an index composed of annual change in the consumer price index and arithmetic mean of growth in the pension's portion of the social tax. Indexation does not occur if the index value is less than 1, thus eliminating the possibility of a decrease in pensions. The pension index reached respectively 1.084 and 1.074 in 2002–2003.

Pre-financed or obligatory savings pension system (II Pillar) started on July 1, 2002. The savings pension offers more stable solution for financing pension expenditures by transferring the I Pillar deficit, expected in the long run over the next few years.

### **Expected results**

The following analysis characterises the effect of population ageing on pension expenditures and budget of the Estonian general government sector. Analysis was conducted, given continuing the same policy, which means:

- Preservation of the old social insurance financing system, financed with the social tax;
- Social tax is 33% of gross salary (20% of pension insurance and 13% of medical insurance);
- I pillar pensions indexing continues using the same formula;
- No one-off pension increases in between 2005 and 2006 besides the approved pension rises of 100 kroons.

I Pillar pension expenditures decrease (as a percentage of GDP). The role of population ageing and overall population decrease play a very important role – the number of taxpayers diminishes and income decreases. Another reason is that 4% of II Pillar participants’ social tax payments is transferred to their account, which leaves 16% of their brutto salary for the I Pillar (instead of the former 20%). Expected increase in II Pillar participants also has a negative impact on I Pillar income.

At the same time these steps have a positive influence on pension insurance expenditures, which decreases pressure on the I Pillar. The reason for this is lower compensation paid from the I Pillar to II Pillar participants. For comparison, EU member states pension insurance expenditures peak at average 3.2% of GDP (by 2040), compared to 2000<sup>3</sup>.

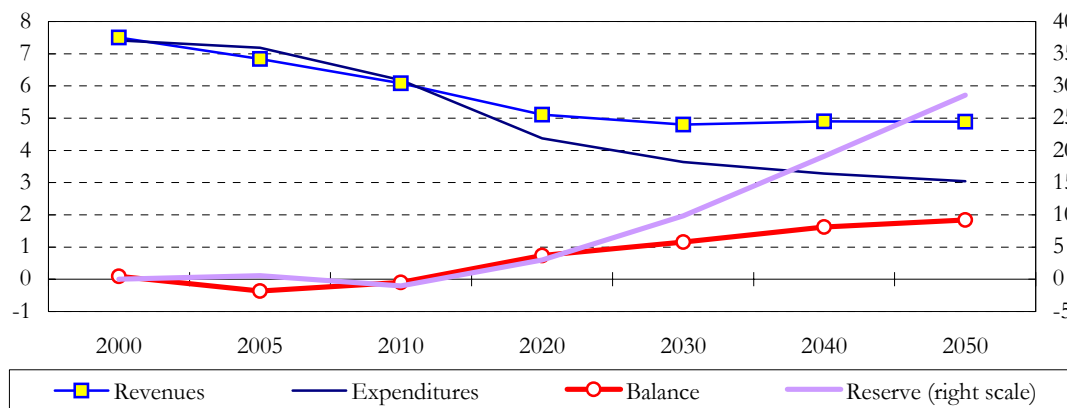
There are several reasons for the decrease in the I Pillar pension expenditures. First, the gradual rise in women’s pension age will decrease the number of retired until 2016, and, second, Estonia has a relatively conservative pension index. The demographic situation also adds its pressure. At the same time, II Pillar pension increases and aggregate pension of the population increases.

Quicker growth of national pension insurance income compared to expenditures brings increase in reserves in the long-term. In 2000-2002 the reserve grew from 0% to 1.3% of GDP, but it is expected to decrease in the following years as a matter of single pension rises and implementation of the II Pillar. (e.g. starting on 1 July 2003 pensions were raised by 100 Kroons) Continuing such a policy can bring a remarkable enlargement of I Pillar reserve deficit in 2006. After that the national pension insurance should be in surplus again and the reserves will start to increase.

**Figure 17**

**Long-term developments of national pension insurance**

(% of GDP)



Sources: Ministry of Finance of Estonia, Statistical Office of Estonia

<sup>3</sup> Economic Policy Committee. Budgetary challenges posed by ageing populations. Brussels, 24 October 2001.

**Table 8****Long-term sustainability of public finances and national pension insurances**

	2000	2005	2010	2020	2030	2040	2050
<b>Basic indicators of public finance (% of GDP)</b>							
1. Old age pensions I pillar (PAYG)	7.41	7.19	6.18	4.37	3.64	3.28	3.04
2. Health care	4.81	4.45	3.95	3.32	3.12	3.19	3.17
3. Revenues of I pillar of pension system	7.5	6.84	6.08	5.11	4.8	4.9	4.89
4. of which social contribution	7.21	6.45	5.74	4.83	4.55	4.66	4.67
5. from state budget	0.29	0.39	0.34	0.28	0.25	0.24	0.22
6. Balance of I pillar	0.09	-0.36	-0.1	0.74	1.16	1.62	1.84
7. I pillar reserve	0.02	0.58	0 (-1.04)	3.01	9.87	19.09	28.6
<b>Assumptions (%)</b>							
8. Labour productivity growth	8.6	4.79	4.34	4.08	2.61	2.41	2.21
9. Real GDP growth	7.3	6	6.2	3.5	1.8	1.3	1
10. Participation rate males (aged 15-64)	70.2	67.4	68.6	69.5	68.2	67.5	66.4
11. Participation rate females (aged 15-64)	57.3	58.4	60	60.7	60.2	58.8	57.3
12. Total participation rates (aged 15-64)	63.3	62.7	64.1	65	64.2	63.1	61.9
13. Unemployment rate (ILO)	13.6	9.4	8.6	8.1	7.6	7	6.5
14. Population	1 369 515	1 343 379	1 319 257	1 265 087	1 199 542	1 142 897	1 091 085
<b>Nominal pension and wage (in kroons)</b>							
15. Average old age pension (switchers + non-switchers)	1 532	2357	3318	5487	9584	20889	40333
16. Average old age pension of the switchers to II pillar	–	2357	3615	6943	13170	25694	43710
17. if which from I pillar	–	2357	3226	4911	6569	8741	11258
18. from II pillar	–	–	388	2032	6601	16953	32452
19. Average gross wage	4 907	7 936	11610	22896	39591	64904	104343
20. Average replacement rate (%)	39.9	36.9	34.1	28.6	28.9	38.4	46.1
21. Replacement rate of switchers to II pillar	–	–	37.1	36.2	39.7	47.2	49.9

Source: Ministry of Finance of Estonia, Statistical Office of Estonia

---

---

## **ANNEXES**

---

---

## Annex 1. Main Economic Indicators of Estonia in 1997–2003

**Table 9**

### Main macroeconomic indicators of Estonia in 1997–2003

(per cent)

	1997	1998	1999	2000	2001	2002	2003
<b>Main economic indicators</b>							
1. GDP real growth	9,8	4,6	-0,6	7,3	6,5	6,0	4,7
2. GDP (bln EEK)	64,0	73,5	76,3	87,4	97,9	108,0	116,2
3. GDP deflator	11,3	9,8	4,5	6,7	5,4	4,1	3,0
4. Consumer price index	11,2	8,2	3,3	4,0	5,8	3,6	1,3
5. Employment (15-74 years old, thousands)	617,2	606,5	579,3	572,5	577,7	585,5	594,3
6. Employment growth	-0,3	-1,8	-4,5	-1,2	0,9	1,4	1,5
7. Productivity growth	10,1	6,5	4,0	8,6	5,5	4,4	3,2
8. Unemployment rate	9,6	9,9	12,2	13,6	12,6	10,3	10,0
9. Average wages (EEK)	3 571	4 100	4 418	4 876	5 511	6 144	6 709
10. Wage real growth	7,6	6,0	4,3	6,1	6,9	7,0	8,3
11. Investments and inventories (% of GDP)	28,0	29,3	24,5	27,8	28,9	31,4	32,9
12. Current account (% of GDP)	-12,1	-9,2	-4,7	-5,8	-6,0	-12,3	-13,7
<b>Sources of growth</b>							
13. Private consumption	7,8	4,3	-2,9	6,5	4,8	9,1	6,2
14. General government consumption	1,8	4,5	3,8	1,5	0,9	5,0	5,6
15. Gross fixed capital formation	17,6	11,3	-14,8	13,3	12,2	16,1	11,5
16. Change in inventories (% of GDP)	2,9	-0,3	-0,4	2,4	2,4	2,9	-1,4
17. Export of goods and services	29,5	12,0	0,5	28,6	-0,2	0,6	6,0
18. Import of goods and services	29,1	12,9	-5,4	27,9	2,1	5,4	9,0
<b>Contribution to GDP growth</b>							
19. Domestic demand (excl. inventories)	9,3	9,2	-5,5	4,9	8,4	9,7	8,0
20. Change in inventories	2,1	-3,0	-0,1	2,9	0,2	0,7	0,0
21. External balance of goods and services	-1,7	-1,7	5,1	-0,5	-2,2	-4,5	-3,4
<b>Growth of value added</b>							
22. Agriculture	5,8	0,0	-2,5	-1,0	-5,0	1,4	-3,5
23. Industry	10,8	2,1	-3,6	13,9	8,5	8,6	8,4
24. Construction	15,2	18,3	-8,2	13,8	4,3	13,9	6,9
25. Services	8,7	5,3	2,1	5,5	7,2	4,6	3,7

Sources: Ministry of Finance of Estonia, Statistical Office of Estonia, Bank of Estonia.

## Annex 2. Detailed Overview of the Reasons behind the Current Account Deficit

---

As the Estonian current account deficit (CAD) is under high attention, the Estonian authorities will give with this annex more detailed information, which could help to understand better the Estonian situation.

### 1. Current account deficit in 2002-2003

The current account deficit of the 2003 balance of payments amounted to 15.9 billion kroons or 13.7% of the expected GDP, up 2.7 billion kroons year-on-year from the 2002. One reason for the growing deficit was still the foreign trade balance: despite export growth (9%, with normal export<sup>4</sup> up 12%) the import of goods outstripped their export. While export increased across almost all groups of goods, import increased as a result of the constantly high domestic demand, mainly in capital goods and transport vehicles.

**The deterioration of the current account in 2002 and 2003 has largely occurred due to so called one-off investments into infrastructure** (the size of one-off investments can be partly seen from the Table 10, but the impact from renewal of power stations is broader than the two items described in the table):

- The renewal of the state-owned power stations started in 2002, with additional impact on CAD around 2.5-3.0% of GDP in 2002 and another 1.5-2% in 2003, as it increased both imports of investment goods and construction services. The renewal of the power stations probably does not directly enhance the Estonian export capacity, but it helps to avoid infrastructure-related problems in the future.
- In addition, large loan-financed investments in the transport sector (into railway oil wagons to be rented mainly to Russian companies for transportation all over the territory of Russian Federation but financed by the Estonian subsidiaries of Nordic banks) have occurred both in 2002, and especially in 2003, with the impact on CAD and investments of around 3.6% of GDP in 2003. The extraordinariness of these transactions can be described by the fact that in 2003, the total imports of oil wagons increased by more than **five times**, reaching 4.1 bn EEK (compared with the 0.77 bn in 2002).<sup>5</sup> Those investments are related to few private companies, operating mainly abroad and thus, they do not reflect general trends in the Estonian economy and do not thereby represent extra burden e.g. on labor resources. The latter investments should start to generate export revenues to cover made investments.

---

<sup>4</sup> Export without goods processed in Estonia. Both figures describe nominal growth.

<sup>5</sup> It could be noted that the total trade balance deterioration in 2003 was 3,5 bn EEK.

**Table 10****The size of one-off investment***(% SKPst)*

	Usual level in 1995-2001 <i>mln EUR</i>	2002		2003	
		<i>mln EUR</i>	<i>% SKPst</i>	<i>mln EUR</i>	<i>% SKPst</i>
<b>Renewal of power stations</b>			<b>2,4</b>		<b>1,5</b>
Constructions services – debit total	below 20	141,1	2,0	82,0	1,1
Steam boilers	around 3	21,9	0,3	27,7	0,4
<b>Locomotives and wagons</b>	below 6,5	49,1	<b>0,7</b>	263,6	<b>3,6</b>
<b>Total</b>			<b>3,1</b>		<b>5,1</b>

*Source: Bank of Estonia, Statistical Office of Estonia.*

The size of the current account was also affected by the income earned from foreign investments made into Estonia, which was particularly large in 2003 – the net outflow of income amounted to 6.5% of the expected GDP (amounting to 7.5 billion kroons). It is important to emphasize that three-fourths of it was reinvested back into Estonian economy and no real movement of funds out of Estonia took place. The impact of negative income balance on total CAD has increased in recent years substantially: while in mid 90s income balance was between zero and one fifth of the CAD, then in last 4 years negative income balance contributed to more than 40% of the total CAD (see Figure 18B).

**It is important to emphasize that in the case of Estonia, most of the investment-savings gap or current account deficit has not been financed through short-term, speculative capital flows.**

- Majority of investments into Estonia throughout the 1990es were financed through FDI inflows to Estonia (see Figure 18C). More importantly, green-field investments and acquisitions make up majority of the FDI stock; the privatization has not been a driving force for the FDI since mid 1990es.
- It is also important to add that while the FDI coverage has fluctuated in various years, the majority of additional flows have still been long-term (see Figure 18D) and Estonia's short-term net external debt continues to be positive (more assets than liabilities).
- Furthermore, significant part of other long-term capital flows have been "hidden FDI", i.e. loans of local banks from their strategic owners, which according to the balance of payments methodology are not recorded under FDI, but under other investments. E.g. in 2003, according to the International Investment Position, Estonia's liabilities in the form of other investments increased by 7 bn EEK, out of which 5,4 bn EEK were parent-daughter financing activities of the Estonian banks.

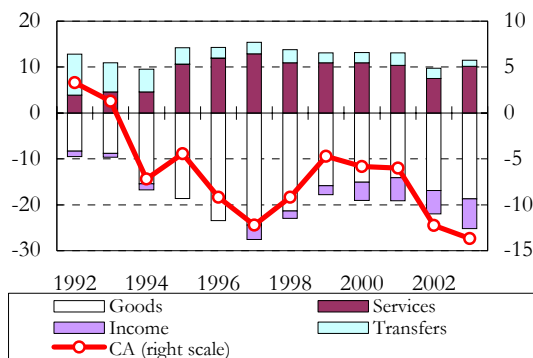
**Preliminary estimates from Q1 2004 show that the four-quarter moving average CAD has decreased by close to 1 pp and will be below 13 percent of GDP.** The improvement has occurred mainly through decreased trade deficit (e.g. energy sector related imports is sharply down), while negative income balance continues to be significant (over 7% of GDP in first months of 2004).



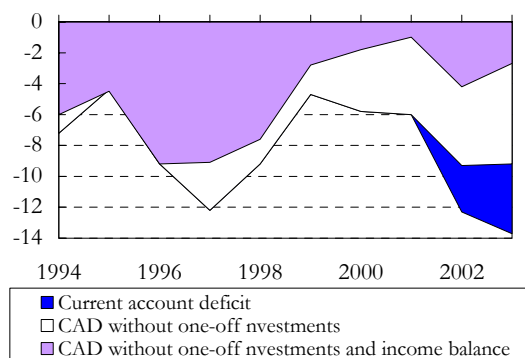
**Figure 18**

**Development of the current account and capital and financial account**  
(per cent of GDP)

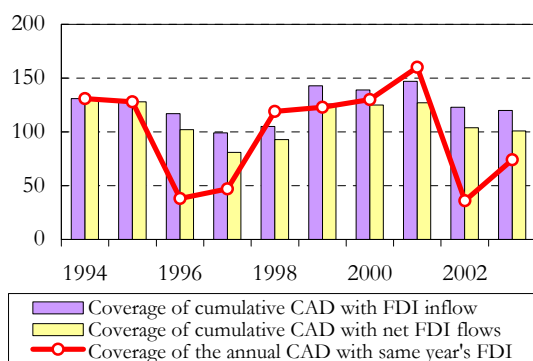
**A. Structure of Current Account**



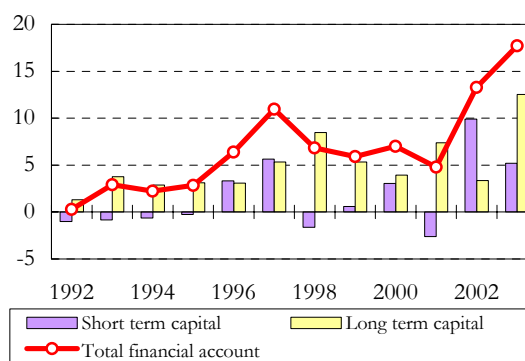
**B. The importance of income balance and one off investments**



**C. CAD coverage with FDI**



**D. The structure of the financial account**



Source: Bank of Estonia, Statistical Office of Estonia.

**2. Estonian current account deficit in international comparison**

According to international experience, a large current account deficit can lead to financial and currency crises, if coupled with various other indicators. A current account deficit can amplify weaknesses of the economy, undermining the credibility of sustainable economic development.

Historically, the **factors leading to serious problems with large current account deficits** are mainly related to international competitiveness, fiscal policy weakness or large capital flows. The deterioration of terms of trade or other supply or demand shocks can worsen the economic environment that can cause a GDP contraction. Additionally, an overvalued currency, i.e. an excessively high real exchange rate, may undermine the competitive position of export firms or those that compete with imports on the domestic market. Expansive fiscal policy and high level of public debt can reduce expectations for good economic outlooks and influence investors to reconsider their investment decisions. Dynamic economic activity and investment, accompanied by large capital inflows, can result in over-optimism and cause an overheating of the economy. As seen from the experience of Asian crisis, weak financial sector can carry a risk of economic instability.

The accumulation of unfavorable economic conditions with a large current account deficit can increase negative expectations and lead to capital outflow from the economy. The loss of credibility

can result in depreciation of domestic currency, drop in GDP growth and sharp rise in unemployment.

**But current account deficit does not necessarily lead to a crisis. If the economic policy is adequate the deficit can be decreased and returned to a lower level or surplus without major negative shocks. Estonian economy is not endangered by current account deficit, as the economic fundamentals continue to perform successfully:**

- a) Estonian commodities are competitive on international markets (Estonian exports are growing faster than our trade partners' imports) and real exchange rate is close to its equilibrium.
- b) In the case of a delay in the recovery of economic activity in the European Union (EU), the Estonian economic growth may be somewhat inhibited. Expectations should still not be affected too much as the overall environment of joining the EU supports economic development and the economic policy remains conservative.
- c) Relatively large capital inflows (mostly long-term) have been present due to high domestic demand. Increased economic activity fueled by decreased interest rates and greater private sector confidence is common for all acceding countries as well as in the case of previous new member states (e.g. Portugal). At the same time, Estonian savings rate has remained rather stable over last 8 years, reflecting the balanced financial behavior of economic agents. The foreign capital supports Estonian competitiveness on international markets and does not create speculative pressures as over two thirds of the stock of foreign direct investments are related to manufacturing and infrastructure. In addition, large negative FDI related income balance proves that past and present investments have been and continue to be profitable, indicating that there are no incentives to draw the capital out of Estonian economy.
- d) Fiscal policy is conservative, government budget has been in surpluses in recent years. The level of public debt is very low (5% of GDP). The ratio of foreign debt servicing costs to exports has been decreasing. Moreover, government sector's liquid foreign assets accumulated from the privatization receipts and recent fiscal surpluses exceed 10% of GDP (in addition to central bank reserves), thus exceeding the value of gross debt.
- e) Estonian financial sector is strong and credible to adjust to possible external shocks. The banks and other financial intermediaries are fully based on private capital, 80% of banks are owned by strong Nordic strategic investors. Estonian banks have merited high ratings and showed good results in stress tests (in the case of shocks the profitability is expected to decrease but capital adequacy should remain high).

### **Annex 3. Output Gap and Cyclically Adjusted Budget Balance**

The cyclically-adjusted budget balance (CAB) has raised to the central stage of fiscal coordination and budgetary surveillance under the Stability and Growth Pact. There is a general consensus that cyclical position in relation to potential GDP should be taken into account in assessing the countries' fiscal stances. Although the European Commission has elaborated the major methodological challenges in assessing the potential GDP, no common methodology has been developed so far for estimating the cyclical sensitivities of budget<sup>6</sup>.

This annex briefly describes methodology used by the Ministry of Finance of Estonia for estimating the output gap and the CAB. It shows that **in 1997–2003 Estonia had a strongly counter-cyclical budget policy when budget position worsened in the years of structural economic slowdown and improved drastically in the years of overshooting growth**. The potential GDP and the structural balance are estimated for the medium-term period 2004–2008. It is shown that **Estonia will continue its counter-cyclical conservative fiscal policy**.

#### **1. Potential GDP and GDP Gap**

Ministry of Finance (MoF) uses the production function approach for estimating the potential GDP and the GDP gap. The initial methodology was adopted from Giorno et al. (1995) and used in Pre-accession Economic Programme 2003 to assess the fiscal stance<sup>7</sup>. Historical data (1993 to 2003) was taken from the Statistical office of Estonia; the database was extended to 2009 using Ministry of Finance forecast.

Using neoclassical production function, potential output is determined by the potential employment, the capital stock and the trend total factor productivity.

$$Y_t^P = TFP_t^T (L_t^P)^\alpha K_t^{1-\alpha}.$$

Following Giorno (1995), the production function is estimated for three market sectors (tradable, non-tradable and agriculture) at factor costs<sup>8</sup>; the output of the public sector is assumed to be equal to its potential. Capital (K) is estimated taking a capital to GDP ratio of 2 in year t-1 (i.e 2003), given substantial FDI inflow during the last decade and strong investment growth in 2001–2003<sup>9</sup>:

$$K_t = I_t + K_{t-1} - DEP_t,$$

where  $I$  is investment into market sectors,  $DEP$  is depreciation, and  $K$  is capital-output ratio in 2003.

Labour input (L) is estimated as potential employment in market sectors. It is derived from the projection of the population of working age using trend (smoothed) participation rate and the estimates of NAWRU (non-accelerating wage rate of unemployment) less labour input in public sector:

$$L_t^P = POPW_t * parts_t * (1 - nawru_t) - LG$$

<sup>6</sup> Current state of play is discussed in DG Ecfm (2004).

<sup>7</sup> Kattai et al (2003).

<sup>8</sup> I.e GDP at market prices less adjustment for financial services.

<sup>9</sup> The capital-output ration for developing countries is estimated to be ca 3. Mankew (1995) suggests that for developing economies the ration can be ca 1.5. See Kattai et al (2003).

Following Giorno (1995), the NAWRU is estimated using simple Phillips curve relationship, which implies that expected real wages will increase whenever the unemployment rate is below the NAWRU:

$$\Delta^2 w_t = -\alpha(u_t - nawru) + e_t^w$$

where  $\alpha_w = -\frac{\Delta^2 wgr}{\Delta ur}$  is elasticity of wage growth with respect to unemployment rate estimated at 2.33.

Inserting smoothed NAWRU estimate to the labour demand function the potential labour input was calculated that was then used in production function. The final estimates of the potential GDP and GDP gap are presented below.

**Table 11**

**Actual and potential output and output gap**

(per cent)

	Output Gap	DG Ecfm Output Gap estimation	Potential output (mio EEK)	Actual output (mio EEK) <sup>10</sup>	Output growth, %
1997	4,0	-0,2	66 781,4	69 452,0	9,27
1998	2,9	-0,6	70 819,1	72 858,1	4,90
1999	-2,9	-3,5	74 992,6	72 797,3	-0,08
2000	-0,2	0,6	78 322,0	78 145,2	7,35
2001	1,6	1,7	81 975,9	83 250,9	6,53
2002	2,4	1,9	86 066,2	88 144,2	5,88
2003	1,5	0,3	90 797,8	92 124,4	4,52
2004	0,5	0,1	96 489,5	96 936,2	5,22
2005	0,0	-0,2	102 551,3	102 533,3	5,77
2006	-0,6	-0,2	108 930,6	108 317,7	5,64
2007	-0,4	NA	115 615,7	115 099,7	6,26
2008	-0,3	NA	122 636,5	122 245,8	6,21

Source: Ministry of Finance of Estonia, Statistical Office of Estonia, DG Ecfm.

The results identify a 1999 recession (output gap is -2,9) and 2002 boom (output gap is 2,4). Overall, estimation of the potential output using production function approach suggests that for the last two years growth in Estonia went above the cycle. Some factors that are specific to a small open economy can be outlined:

- First, the potential macroeconomic cycle is strongly influence by the cyclical developments in the EU economy, in particular through the open (tradable) sector of the economy.
- Second, the slow-down of inflation in 2002-2003 can be explained by classical Balassa-Samuelson effect and thus shouldn't be attributed to the cyclical growth estimates.
- Third, results suggest that throughout the forecast horizon Estonian macroeconomic growth will remain very close to potential; the estimates show that the output gap will become negative towards 2008; this is a due to a reversed macroeconomic cycle in Europe when EU economy is expected to pick up, thus suggesting a stronger growth potential for Estonia.

<sup>10</sup> From 2004 on forecast by Ministry of Finance of Estonia.

## 2. Cyclically Adjusted Budget Balance

DG Ecfm (2004) explains current methodological gaps in estimating the cyclically adjusted budget balance (CAB). This Convergence Programme uses a present methodology of the European Commission that defines the CAB as following:

$$CAB = BB - \epsilon OG,$$

where BB stands for the budget balance to GDP ratio and OG for the output gap. Elasticity  $\epsilon$  is a weighted average of the tax elasticities of six main budget revenue categories<sup>11</sup>.

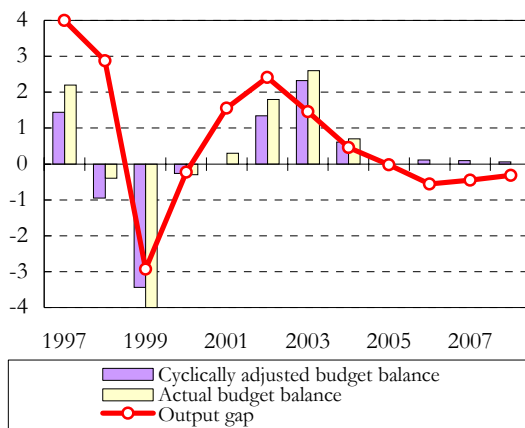
Elasticities were estimated in Kattai et al (2003) and were assumed to remain unchanged. This is one of the factors that certainly influence the overall estimation results. In addition, the assumption was made about a stable structure of the budget revenues in line with the European Commission’s current approach. However, the structural changes were particularly significant in the last couple of years of above potential growth. The estimated CAB and actual budget balances are compared on the background of the output gap estimates in the graph below.

### Joonis 19

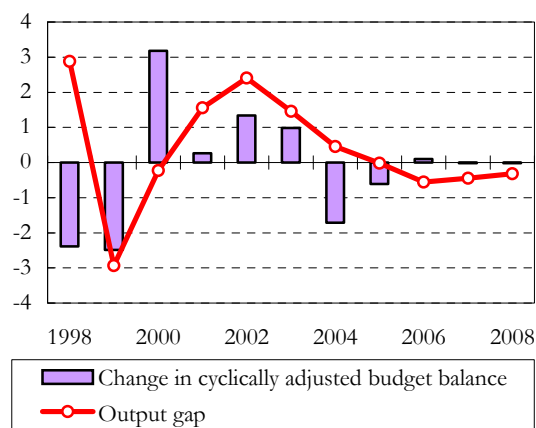
#### Output gap and structural budget balance

(% of GDP)

##### A. Output gap, cyclical and actual balance



##### B. Output gap and change in structural balance



Source: Ministry of Finance of Estonia.

The results suggest that in 1997–2003 Estonian budget policy was strongly counter-cyclical. Both actual and structural balances were negative in the years of macroeconomic slowdown of 1998–1999, and positive in the years of above potential economic growth (2001–2003). This conservative “overshooting” has an implication for the fiscal policy stance in 2004, when change in budget balance will become negative. In addition to “overshooting” the negative fiscal stance can be attributed to the cyclical change in the output growth, but also to a natural time lag of the fiscal correction. Government’s plan to continue its conservative fiscal policy and to keep the nominal general government budget in balance in a period when output gap becomes slightly negative implies that cyclical budget will be balanced in the medium-term as required by the Stability and Growth Pact.

Particular attention should be drawn to the relative size of automatic stabilisers. As our estimates show, the cyclical component of budget balance is relatively small. Main reason behind this is a

<sup>11</sup> Social tax, excise taxes, personal income tax, VAT, corporate income tax, and gambling tax.

negligible size of the cyclical component in budget expenditure. Transfers to households constitute a little over quarter of all public sector expenditure, of which *ca* 70% are pensions, 13% are family benefits and *ca* 7% healthcare compensations. Cyclical expenditures – unemployment benefits and living allowances together make up only *ca* 5% of the transfers. Therefore, the expenditure elasticity is assumed to be 0 (Kattai et al, 2003).

In the present Programme no attempt was made to use an alternative methodology<sup>12</sup> for estimating CAB. Later this year the Economic Policy Committee Output Gaps working group should develop suggestions to enhance the European Commission's methodology that will be adapted by the Ministry of Finance of Estonia.

**References:**

- Ecfm (2004). Use of the Cyclically-Adjusted Budget Balance in EU budgetary surveillance. Note for the EFC, ECFIN/123/04-EN.
- Giorno, C., Richardson, P., Roseveare, D, van den Noord, P. Estimating Potential Output, Output Gaps and Structural Budget Balances. OECD, Economics Department Working papers, No 152, Paris 1995.
- Kattai, R. et al. (2003). Automatic Fiscal Stabilisers in Estonia: The Impact of economic fluctuations on general government budget balance and fiscal policy decisions. Ministry of Finance of Estonia / Bank of Estonia joint research paper.
- Mankiw, N.G. "The Growth of Nations", Brookings Papers of Economic Activity, 1995.

---

<sup>12</sup> For example, the OECD or the ECB approach (see Ecfm, 2004).

## Annex 4. Assumptions of forecasts

**Table 12**
**Basic assumptions of forecasts for period 2002–2008**
*(per cent)*

	2002	2003	2004	2005	2006	2007	2008
Short-term interest rate (annual average)	3.3	2.3	2.2	2.7	3.3	3.7	3.7
Long-term interest rate (annual average)	4.9	4.1	4.3	4.5	4.6	4.9	4.9
USD/EUR exchange rate (annual average)	0.95	1.13	1.28	1.22	1.10	1.00	1.00
EEK exchange rate vis-à-vis the EUR (annual average)	15.6466	15.6466	15.6466	15.6466	15.6466	15.6466	15.6466
World GDP growth	3.0	3.5	4.1	4.0	4.0	4.0	4.0
United States, GDP growth	2.5	2.8	3.8	3.3	3.0	3.0	3.0
EU-15 GDP growth	1.1	0.8	2.0	2.4	2.5	2.5	2.5
Oil prices (Brent, USD/barrel)	25.0	28.3	25.5	25.0	25.0	25.0	25.0