

Macroeconomic forecast of the Ministry of Finance of Estonia

Published on 25th of February, 2004

EXECUTIVE SUMMARY¹

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The economy in 2003

Mostly as a result of the postponed economic recovery in Europe economic growth in Estonia slowed down in 2003 by 1.5 percentage point to the estimated 4.5%. Led by persistently buoyant investment, domestic demand was the main growth contributor. Both private and public consumption remained strong in the course of 2003, the first supported by growth of real incomes and by historically low interest rates, the second grew faster than estimated in 2003 autumn forecast due to the improved revenue position and approval of the surplus budget. Inflation reached all-times low at 1.3% on an annual basis mostly due to falling food and fuel prices. Although nominal wage growth fell to 9.7%, low inflation led to increase of real wages by 8.3%.

As external economic outlook started to improve in the second half of 2003, industrial activity picked up leading to increase of industrial value added by 8.7%. Second biggest contributor to value added growth was the construction that expanded at 6.2% -- an impressive slowdown from almost 14% increase in 2002. Voluminous investment in the previous years led to drastic increase in agriculture value added that grew by 4.3%.

Current account deficit deteriorated to over 15% of GDP as a reflection of demand-driven growth. Export grew by 3.8% on the background of sluggish growth in Europe. At the same time, import grew by almost 10%. Capital goods was the main import article due to massive structural investment by Estonian Railways, Estonian Energy and a number of other big companies.

Increase of labour force mostly on behalf of reduction in the number of discouraged workers led to increase of unemployment rate to 10.6%. At the same time, employment grew by 1.3% in 2003 influenced by strong infrastructure investment and one-off factors such as re-opening of the labour intensive production plant in North-Eastern Estonia. This increase of employment partly explains slowdown in productivity growth to 3.2%. Thus, a gap between growths of productivity and real wages of more than 5 percentage points could not be considered as persistent in the medium term. Overall, labour market in Estonia is very flexible. There are no strong trades unions, and increase of real wages has been mostly moderate with an estimated 50 to 60% of the increase attributed to improved productivity. Thus, relatively inexpensive labour will remain a comparative advantage in the medium term, leading to mostly labour-intensive foreign direct investment. This will be a restrictive factor on increase of productivity. The situation is expected to improve in the longer term when current economic policy priorities and institutional reforms in education will pay back.

Macroeconomic outlook in 2004 and beyond

Economic recovery in Europe and enhanced export outlook, as well as completion of the 2002 and 2003 investment projects should support acceleration of growth in 2004 to 5.3%. GDP deflator will increase from 3% to 3.8%, as external outlook improves. Both export and import are expected to increase by over 7%, but structure of imports will change to support the industrial exports. Although the current account will remain negative in the medium term, it will gradually strengthen from 13% in 2004 to less than 9% in 2008.

Growth of domestic demand will slow down somewhat, mostly on behalf of more moderate investment activity. By now, a share of investments and inventories in GDP is over 33%. This is remarkably higher than the EU average and a result of structural underinvestment and capital deficit. Implementation of the National Development Plan and increased FDI

should provide a basis for strong growth of investment in the medium term on average by 8% annually, increasing the share of investment in GDP to over 34%.

Growth of private consumption by over 6% in 2004 to 2006 will be a reflection of increase in real disposable income as a result of fiscal reforms and persistently low interest rates in the course of 2004. There is a strong evidence of structural shift from liquidity constrained to intertemporal consumption. In part this is captured by a decline of the savings to output ratio from nearly 30% in 1995 to 18.1% in 2003. Structural fall in the savings ratio was supported by favourable borrowing conditions with historically low domestic margin on the EU interest rates. Persistently low interest rates are expected in 2004, giving positive push to private consumption growth. However, in the longer term increase in interest rates and the liquidity constrain will hold back growth of consumption to slightly over 5%.

Public consumption will remain buoyant in 2004, increasing by 6.5%. Most of the growth is contributed to increase of expenditures on improving administrative capacity in the course of accession to the EU. In the medium term, public expenditure growth will be constrained to less than 3.5% annually mostly due to the balanced budget restriction and implementation of the fiscal reforms that will lead to the slower growth of the budget revenues. Contra-cyclical fiscal policy and implementation of the pension reform are expected to improve the domestic saving to output ratio to over 23% in the medium term.

Growth of value added

Growth of value added in the medium term will be determined by substantial investment in infrastructure in 2002 and 2003 and by the structural change in investment in 2004. Once external demand is improved, the share of FDI in total investment will increase, and manufacturing will benefit the most from the investment growth. Manufacturing and construction will remain the most buoyant sectors of the economy, growing respectively by 8.5% and 7.4% in 2004. Industrial output is expected to improve even further in 2005 due to the economic recovery in Europe. In the medium term, increase of the output of services will be mostly associated with growth of the productive sector. Agriculture is expected to grow by over 2% annually, supported by FDI and improved infrastructure and export outlook.

Costs and prices

Starting from the very low base, consumer prices will increase in 2004 by 3.1%. Rise in CPI will be supported by one-off factors associated with the EU accession and a rise of the administered prices. Rise of the excise taxes on fuel on the 1st of May 2004 will be one of the most important contributors to inflation. Food prices have been on increasing trend since the end of the last year. Some of this appreciation in 2004 is due to rise of the prices on raw materials due to the accession. Administered prices will increase reflecting expanding capital investments. Overall, inflation expectations have been quite high, but internal market competition is expected to hold back price increases. Moderate inflation in the Eurozone is another factor that contributes to price determination in Estonia. Thus, in the medium term inflation will slow down somewhat to 2.8%. Increase of electricity prices in 2005 will be the single biggest factor contributing to inflation.

Due to the generally low capital base of homebuyers, credit conditions and income have been major determinants of prices in the housing market. Although a purchasing power of the households grew rapidly already in the late 1990s, the housing market has started expanding only after the credit market conditions improved in 2000. During a three-year period, the stock of housing loans grew 3.5 times, whereas the average prices of standard

apartments (representing a third of the present housing stock) in Tallinn have more than doubled. An increase in prices has been mostly driven by the adjustment in the relative prices that is characteristic of the transition process reflecting convergence of the market price to the replacement cost of property. Increase in the assets prices has been relatively homogenous across all market segments, indicating low probability of the asset price bubble. Buoyant construction activity and rise of the asset prices reflect structural deficit on the market, thus giving enough room for closing the development gap.

2004 will bring relatively moderate increase of the real labour cost. Real wage will grow by 5.1% reflecting relatively high base and introduction of some fiscal measures that ease the pressure for wage increases. Reduction of the income tax rate and introduction of some transfer schemes will lead to the slowdown of the real growth of wages in the medium term to ca 4%. However, increase in the real wages will remain stronger than productivity growth in 2004. As productivity picks up in the medium term driven by increased FDI, it is expected to grow by 5.5% annually on average.

Labour market

Moderate employment growth at 0.9% will persist in 2004, with additional 20 000 employed by 2008. Increase of the FDI and the favourable macroeconomic outlook will push the unemployment rate down to 10% in 2004, and further to 9.4% in the medium term. Unemployment remains strictly structural; therefore, its reduction is expected in the longer term. So far, active labour market policies have marginally contributed to a reduction of the unemployment, bringing together a rise in the labour force participation rate. Since a large share of unemployment is attributed to the structural factors it is almost impossible to estimate a plausible Phillips curve relationship for Estonia. Flexibility of the labour market and labour training schemes are going to determine employment structure in the medium term. Relatively low labour costs will determine the inflow of FDI into labour-intensive production. Some revival of activity of the small- and medium size enterprises due to a targeted National Development plan support will give positive impact on employment.

Public finances

2003 ended with surplus of 2,0% in general government budget, which means increase in fiscal position of 0,8% compared to previous year. Local governments are continuously putting pressure on public finances, as first estimates of their deficits showed a deficit of 0,5% in municipalities budget (Tallinn -0,5%, others were in small surplus). Deficit of municipalities was although more than offset by surplus of social security funds (0,7% of GDP).

Debt of general government decreased to 5,4% (compared to 5,8% on 2002) of GDP. There was a small increase (from 2,4% to 2,6% of GDP) in local government debt, but the decrease of overall figure was caused by a decrease in central government debt.

To address the issue of ageing population and fiscal sustainability, the pension reform was introduced on 2002. Reform has been a success, as most of eligible people have already joined fully-funded second pillar funds.

Estonia will continue to follow the balanced budget policy, 2004 budget was agreed in balance. This is done despite of growing contribution to the second pillar funds (0,8% of GDP) - where the government has a possibility to deviate from balance budget condition.

Biggest changes in 2004 state budget are:

- introduction of increase in tax-free threshold from 1000 - 1400 (740M EEK);
- introduction of parent-benefit scheme (ca 500M EEK);
- increase in teachers salaries (by 12%);
- increase in pensions (average pension will rise 100 kroons additionally to the indexation);
- increase in EU financed expenditures (and revenues) (from 1,8bill (2003) to 5bill EEK);
- introduction of new spending category - Estonian payment to EU budget (0,8% of GDP);
- changes in taxes (new VAT act changed the legislation to comply with EU VAT Directive; some excise rates will be increased on 2004).

In medium-term the government will continue to pursue the balanced general government budget and will continue to off-set the increase in transfers to second pillar funds with decrease in expenditures to reach the target.

Planned changes to the budgets of 2005-2006 are following:

- continuing with the tax reform (decreasing the income tax rate to 20% by 2007; increasing tax-free threshold to 2000 EEK by 2006);
- further increase of pensions (annual increases of the average pension by 100 kroons will also be carried out in 2005 and 2006);
- introduction of the reform in educational system (although timeliness and amounts are not yet fixed for the time being);
- projects financed by EU funds will continue to be closely monitored and the purpose is to budget only projects, which actually will be realised in particular year. This is a change from 2004, when the budgeted amounts reflected more or less the amounts of grants given.

Differences with the previous forecast

The 2003 autumn forecast was based on the preliminary estimates of the 2002 National Accounts published on 30th June 2003. More recent revision of the data by the Statistical Office, and the correction of the foreign trade figures for 2002 have determined most of the changes made in the 2004 spring forecast. Other differences arise from the postponed economic recovery in Europe.

Table A. Differences in the 2004 estimates

| Economic Indicator | MoF forecast 2003 | MoF forecast 2004 | Difference (abs) |
|-------------------------------|-------------------|-------------------|------------------|
| GDP real growth (%) | 5.6 | 5.3 | 0.3 |
| Export of goods and services | 11.5 | 7.4 | -4.1 |
| Import of goods and services | 9.5 | 7.2 | -2.3 |
| Unemployment rate | 9.6 | 10.0 | 0.4 |
| Gross fixed capital formation | 6.6 | 6.7 | 0.1 |
| CPI | 3.8 | 3.1 | -0.7 |

Economic growth and associated factors 2002–2008 (%)

| | 2002 | 2003* | 2004* | 2005* | 2006* | 2007* | 2008* |
|--|-------|-------|-------|-------|-------|-------|-------|
| Main indicators | | | | | | | |
| 1. GDP real growth | 6,0 | 4,5 | 5,3 | 5,8 | 5,6 | 5,9 | 5,8 |
| 2. GDP (mld. kroons) | 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. CPI | 3,6 | 1,3 | 3,1 | 3,0 | 2,8 | 2,8 | 2,8 |
| 5. Employment (15–74 years old, thous.) | 585,5 | 592,9 | 598,4 | 602,6 | 604,1 | 605,2 | 606,4 |
| 6. Employment growth | 1,4 | 1,3 | 0,9 | 0,7 | 0,3 | 0,2 | 0,2 |
| 7. Productivity growth ¹⁾ | 4,4 | 3,2 | 4,3 | 5,1 | 5,4 | 5,7 | 5,6 |
| 8. Unemployment rate (ILO) | 10,3 | 10,6 | 10,0 | 9,4 | 9,5 | 9,4 | 9,4 |
| 9. Average wage (kroons) | 6 144 | 6 702 | 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 | 33,4 | 33,3 | 33,4 | 33,9 | 34,2 | 34,7 |
| 12. Domestic savings (% of GDP) | 19,2 | 18,1 | 20,2 | 22,0 | 23,1 | 24,6 | 26,0 |
| 13. Current account (% of GDP) | -12,3 | -15,3 | -13,0 | -11,4 | -10,8 | -9,6 | -8,7 |
| Sources of growth | | | | | | | |
| 14. Private consumption | 9,1 | 6,1 | 6,2 | 6,0 | 6,3 | 5,4 | 5,3 |
| 15. Government consumption | 5,0 | 6,0 | 6,5 | 3,9 | 3,6 | 3,3 | 3,1 |
| 16. Gross fixed capital formation | 16,1 | 13,5 | 6,7 | 9,1 | 7,8 | 7,7 | 7,7 |
| 17. Change in inventories (% of GDP) | 2,9 | 3,0 | 2,5 | 1,9 | 1,6 | 1,4 | 1,3 |
| 18. Export on goods and services | 0,6 | 3,8 | 7,4 | 8,5 | 9,9 | 9,3 | 9,3 |
| 19. Import on goods and services | 5,4 | 9,7 | 7,2 | 7,9 | 8,9 | 8,7 | 8,5 |
| Contribution to GDP growth | | | | | | | |
| 20. Domestic demand (excl. inventories) | 9,7 | 10,3 | 6,5 | 6,9 | 7,1 | 6,8 | 6,4 |
| 21. Change in inventories | 0,7 | 0,1 | -0,3 | -0,5 | -0,2 | -0,1 | 0,0 |
| 22. External balance of goods and services | -4,5 | -5,9 | -0,9 | -0,6 | -1,2 | -0,8 | -0,5 |
| Growth of value added | | | | | | | |
| 23. Agriculture | 1,4 | 4,3 | 1,4 | 1,8 | 2,6 | 2,8 | 2,9 |
| 24. Industry | 8,6 | 8,7 | 8,5 | 8,9 | 7,5 | 7,9 | 7,1 |
| 25. Construction | 13,9 | 6,2 | 7,4 | 6,6 | 6,8 | 6,4 | 6,7 |
| 26. Services | 4,6 | 3,3 | 4,2 | 4,7 | 4,9 | 5,3 | 5,4 |

Source: Estonian Statistical Office, Bank of Estonia
1) Growth of real GDP per person employed.

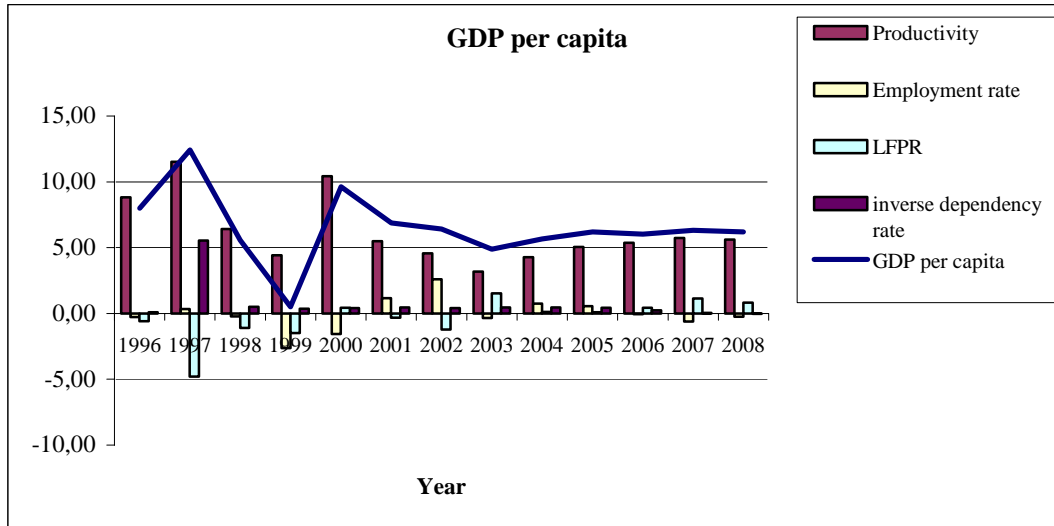
*Forecast of the Ministry of Finance

Comparison with other forecasts

| | GDP growth, % | | Consumer price index, % | | Current account, % of GDP | |
|---|---------------|------------|-------------------------|------------|---------------------------|--------------|
| | 2003 | 2004 | 2003 | 2004 | 2003 | 2004 |
| IMF | 5,0 | 5,1 | 1,7 | 2,0 | – | – |
| European Commission | 4,4 | 5,6 | 1,8 | 4,0 | -15,2 | -12,2 |
| Bank of Estonia | 4,4 | 5,2 | 1,5 | 4,0 | -14,4 | -11,1 |
| Hansapank | 5,5 | 4,8 | 3,9 | 3,5 | – | – |
| Estonian Institute of Economic Research | 7,0 | 6,0 | 4,0 | 3,5 | – | – |
| Ministry of Finance | 4,5 | 5,3 | 1,3 | 3,1 | -15,3 | -13,0 |

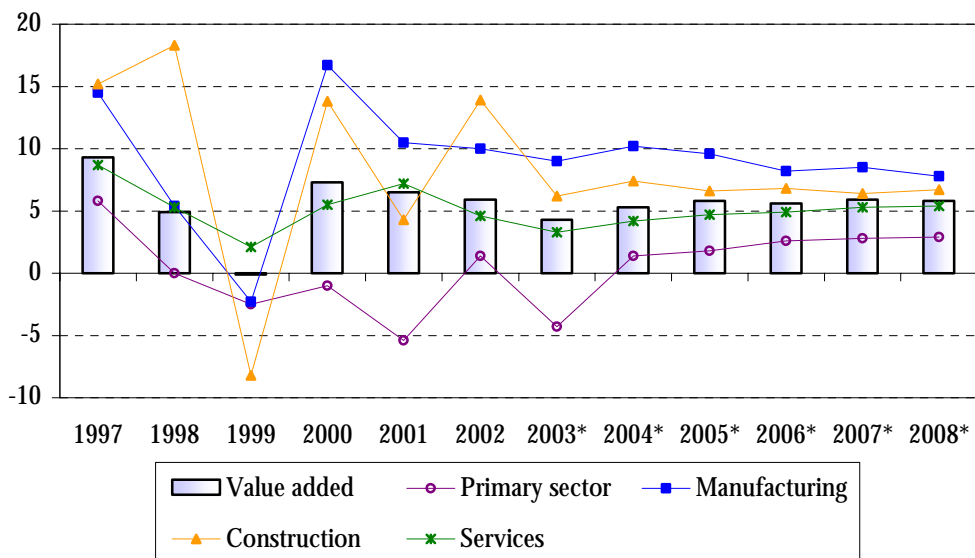
Graph 1. Growth of value added decomposed

According to our preliminary forecast, growth of GDP per capita is supported by increase in productivity and labour force participation rate (LFPR). In 2004 and 2005 contributions of both employment rate and inverse dependency rate are positive. Employment is forecast to deteriorate slightly the medium term reflecting relatively low productivity.



Graph 2

Growth of value added (%)

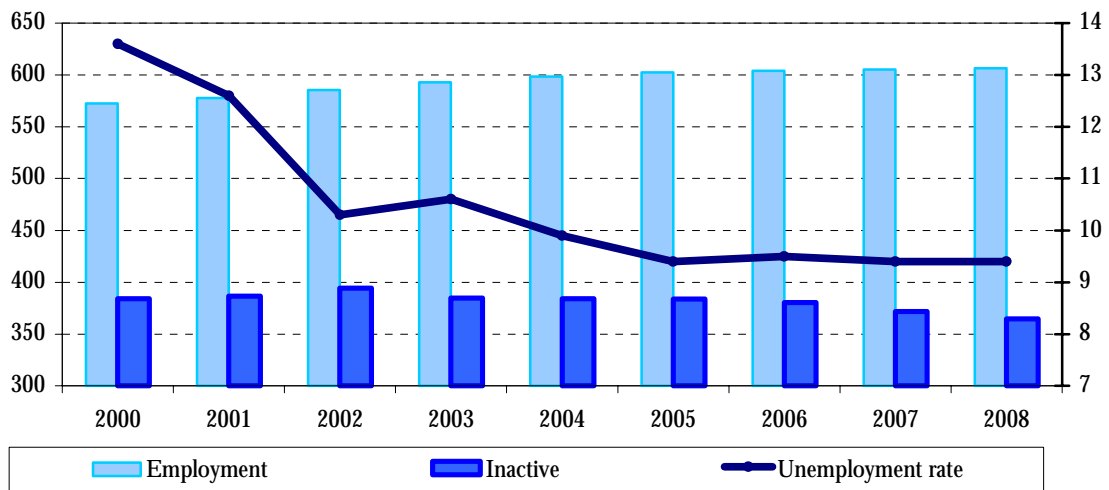


Source: Estonian Statistical Office

*Ministry of Finance Forecast

Graph 3

Employment, activity and unemployment rate (thousands and %)

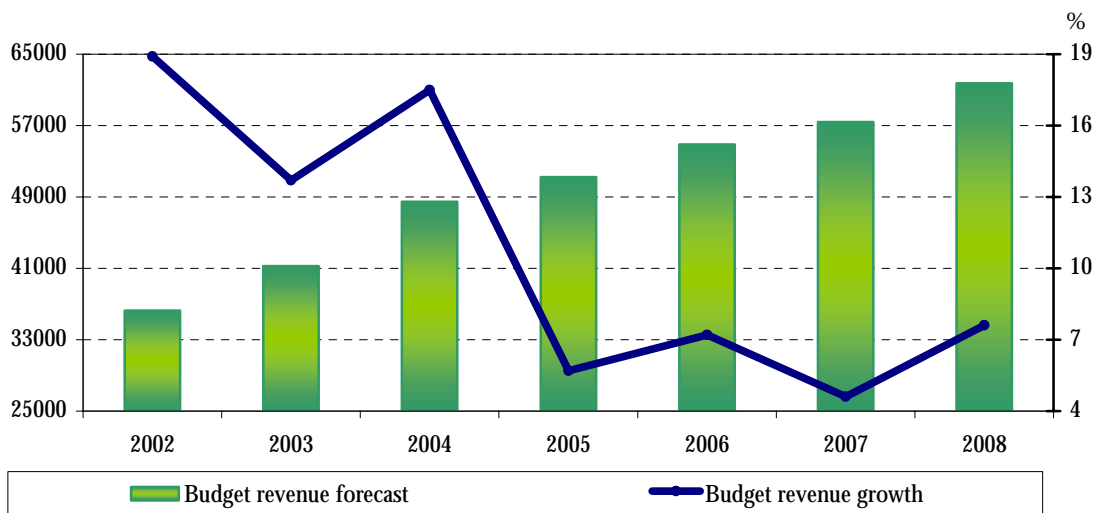


Source: Estonian Statistical Office

*Ministry of Finance Forecast

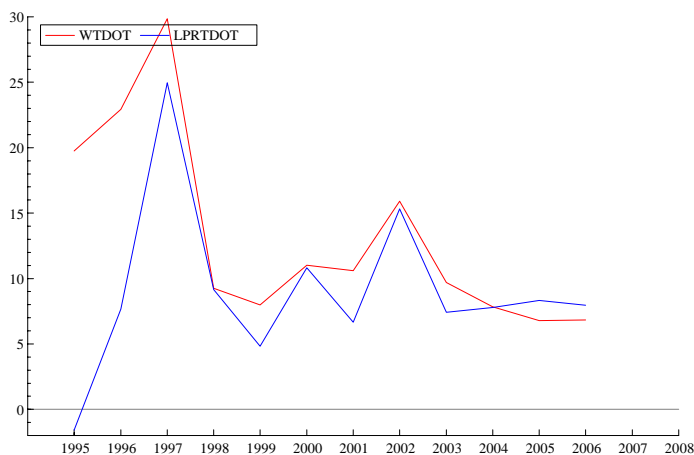
Graph 4

Budget revenues (mln kroons)



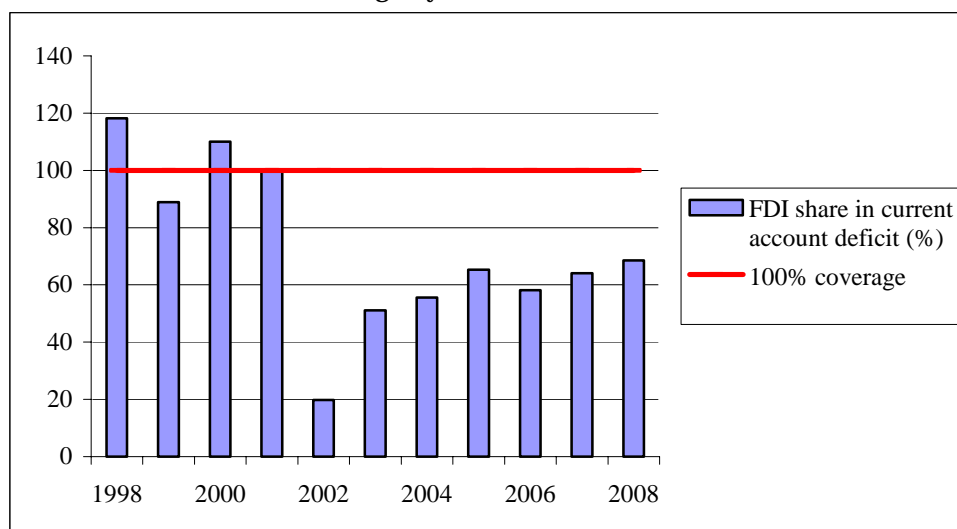
Graph 5

Growth of wages (WTDOT) and productivity (LPRTDOT) in the tradable sector



Graph 6

Current account deficit coverage by FDI, (%)



The biggest investment projects envisaged in the medium-term

- **Eesti Energia** (Estonian Energy) Most of the investment is targeted at the reconstruction of the supply network and renovation of the power station. The following investment schedule is envisaged (in kroons): 2004/05 – 3.0 mld, 2005/06 – 2.7 mld, 2006/07 – 2.3 mld, 2007/08 – 2.3 mld, 2008/09 – 2.9 mld. In January the long-term Investment Programme was approved by the council of Eesti Energia. In addition to network renovation the Plan envisages renovation of the energy blocks (production systems). Therefore, if these additional investment is taken into account the actual investment by Eesti Energia may be even more voluminous than in the baseline programme.
- **Tallinna Sadam**.(Port of Tallinn) Investment is directed at infrastructure construction (incl. Buildings) and deepening of the aquatorium. The following investment schedule is envisaged (in kroons): 2004 – 1.2 mld, 2005 – 0.9 mld, 2006 – 0.8 mld, 2007 – 0.9 mld, 2008 – 0.4 mld.
- **Eesti Raudtee**.(Estonian Railways) In 2004 total investment will reach 771 mln kroons, of which 318 mln kroons is directed to infrastructure development, 312 mln kroons to the purchase of the railway carriages, and 141 mln kroons to the renovation of the rails.
- **Larvic Cell**. (Norway). Construction of the cellulose production plant in Kunda. The work is to start in the mid-2004 and to be finished in the end of 2005. Estimated value of investment is 2.6 mld. kroons.
- **Linstrow International**. Construction of Ülemiste shopping centre that should be finished in spring 2004. Estimated value of investment ca 600 mln kroons.

Forecasting record of the Economic Analysis department

Ministry of Finance prepares forecasts twice a year. For each forecast a detailed set of assumptions is made about the world economy, demographics and the likely fiscal policies outlined in the Investment Programme, Single Programming Document (SPD) and the budget. In addition to the external shocks and unexpected policy changes the forecasts have been affected by changes of underlying behaviour of the economy over the past decades. The output determination in different sectors, wage bargaining, and the behaviour of economic agents have undergone a spectacular structural transformation typical to transition economies. Only in the end of 1990s the structural changes started to terminate, allowing expanding the forecast horizons and improving its consistency.

In 2000-2003 the corrections of the medium-term economic forecasts of the Ministry of Finance stem from numerous data revisions and changes of the statistical base in 2000, 2002 and 2003 due to specification of the 2001 National Accounts.

Overall, the forecasting record is illustrated in the charts below.

