Eesti Pank
Bank of Estonia

Estonian Economy and Monetary Policy

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ECONOMIC FORECAST FOR 2010-2012

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Eesti Pank's autumn forecast has been prepared in cooperation between experts from the Economics, the Financial Intermediation, and the Public Relations Department. The forecast has been compiled using the Macro Model of the Estonian Economy devised and regularly updated by the Research Department of Eesti Pank.

The forecast is based on information available as at 17 September 2010 and it is also published in the central bank's publication Estonian Economy and Monetary Policy No 2/2010.

SUMMARY

Estonia's economy has exited recession on the back of increasing exports. Our main trading partners enjoyed faster-than-anticipated growth in the first half of the year, which contributed to an upturn in Estonia's economy as well. However, the current growth impetus in foreign trade will be short-lived, since global recovery is losing momentum after a post-crisis pickup. Both shorter-term and other economic stimulus measures that have temporarily upheld growth are coming to an end, so the main focus in the near term will be on the extent of the slowdown. The aftermath of the crisis is exerting a strong pressure on growth outlooks in several countries, because global economic recovery largely depends on the ability of advanced economies to regain control over their general-government budget and debt level. Inflation in the external environment is expected to remain subdued over the forecast horizon, although various commodities have gone up in price and markets do not expect them to return to lower levels.

Estonia's economy has displayed considerable aptitude in increasing efficiency. Post-recession adjustments have laid the foundation for productivity-based growth, so productivity per employee is likely to reach a historical high in 2012. Nevertheless, since productivity growth will not fully offset the rapid fall in employment, the volume of the economy will remain below pre-crisis levels even in 2012. Some sectors have not seen considerable improvements from the standstill of the slump. Irrespective of the recovery, the economy is still displaying signs of fragility. For instance, unemployment is very high, investment activity has not resumed and lending activity has also failed to pick up again. Moreover, the balance of payments shows that the upward revision of our sovereign rating has not reignited invertors' interest in Estonia. The confidence of both companies and households has markedly improved. However, their conservatism is also likely to have increased due to the crisis experience, and this hampers a full pass-through of the more positive expectations to real indicators. Annual growth will accelerate even more in the next quarters and then start to slow. The post-recession boost in productivity will soon cease to suffice as a growth driver, which means investment and new jobs will have to take its place.

Productivity-based growth will enable keeping price pressures in check, provided that growth in labour unit costs remains subdued. This, coupled with the considerable amount of underutilised production capacity and high unemployment, is keeping Estonia's inflation rate low. If domestic price pressures nevertheless surface, it may refer to either weak competition or insufficient post-crisis adjustment in some companies. Apart from commodity price rises, the autumn forecast does not envisage any price pressures from the external environment. Part of the price growth of raw materials for food has been included in the forecast, so annual inflation is expected to pick up in the coming months. The effect of tax increases implemented to improve the budgetary position is another factor keeping inflation high in the near future. Their impact will withdraw at the start of 2011. The planned rise in the tobacco excise duty has also been taken into account, but this will contribute to inflation only marginally.

Estonia's labour market has been displaying revival signs since end-2009, but there occurred no notable contraction in unemployment in the first half of this year, when job creation gained some momentum. Unemployment is expected to decline more in the second half of 2010, but growth in long-term unemployment will nevertheless prolong into 2011. Since the economy will be unable to create enough jobs even in the circumstances of faster growth, the issue of unemployment will persist in the years to come, coupled with the skills mismatch problem and the risk of increasingly more jobless people becoming discouraged. Wage reductions have come to an end in most sectors and payrolls are becoming larger as a result of the number of working hours increasing and part-time work decreasing. Bonuses are also likely to resume their role already at the end of this year. Hourly wages are expected to grow only modestly over the forecast horizon.

The contraction in wages and prices has been shorter-term and smaller-scale than could have been expected looking at the sharp fall in GDP. It is also below the spring forecast's expectations. Cuts in wages and prices so far have contributed to economic stabilisation, but it is not yet clear how strongly this will facilitate the inflow of investment and creation of new jobs, which are both vital for growth. The high reservation wage of the unemployed has decreased compared to the rapid growth years, but a further decline would speed up both labour market clearing and shrinkage in unemployment.

The fiscal balance improvements of 2009 were an indispensable step in restoring confidence in the Estonian economy. In order to restore fiscal surpluses, growth-induced additional tax revenue should be used for curbing the deficit, not for increasing expenditures. If growth in the external environment slows faster than anticipated, Estonia may have to curb expenditures even further. Although the tax abundance of Estonia's GDP is declining, it may prove necessary to reduce the tax burden in order to support the economic growth potential.

Banks operating in Estonia have remained conservative and their lending activity is still moderate. For credit growth to pick up, the Estonian economic environment and related risk assessments would need to improve even more and collateral-related risks should also diminish somewhat. The latter is definitely supported by growing export volumes and cash flows. The level of risk premia on real-sector loans has remained close to the start of 2009. Considering the current weak credit demand, banks in Estonia have no incentive to step up competition between themselves. Credit availability and credit standards may improve along with general economic recovery.

In addition to the baseline scenario, the autumn forecast consists of two boxes of background information. The first box introduces the calculation of Estonia's potential GDP, which has become more specific. According to the box, Estonia's next years' growth potential will be smaller than it has been so far. The second box is based on a research project carried out at the central bank and discusses the effects of high indebtedness. It concludes that the level and growth of indebtedness before the recession do not significantly affect Estonia's medium-term economic growth.

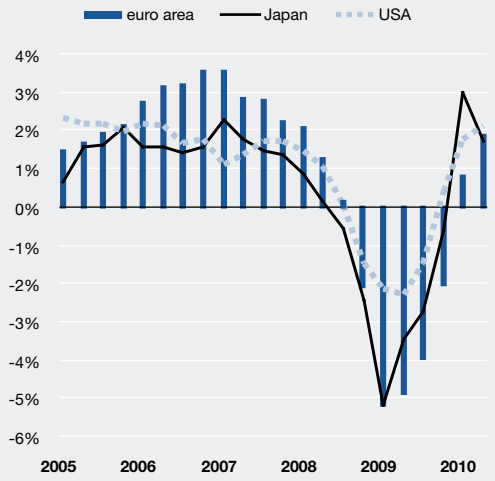
EXTERNAL ENVIRONMENT

Both global economic growth and the growth of our main trading partners exceeded expectations in the first half of 2010, helping Estonia's economy to take off faster as well. However, the speed of growth differs across countries, being the most rapid in Asia. Many advanced economies still have the aftermaths of the crisis weighing on both growth and its outlooks.

Several signs are referring to a slowdown in the global growth pace after a post-crisis (and also forecasted) surge. Both shorter-term and other economic stimulus measures that have temporarily upheld growth are coming to an end, so the main focus in the near term will be on the extent of the slowdown. Looking further ahead, global growth will be relying on the ability of advanced economies to regain control of their general-government budget and indebtedness level. A reduction in the debt burden will, in longer term, contribute to growth through increasing confidence and declining interest rates, whereas in shorter term, it may sharply inhibit the crisis-measures-driven growth. Mistrust of several euro-area countries, which was caused by fiscal problems in Greece, has been causing tensions in government bond markets since spring. This has led to higher costs of public debt financing of these countries, but infected also financial markets in general and brought along a temporary weakening of the euro in summer. However, the recent months' developments have left both the real economy and confidence indicators relatively unscathed.

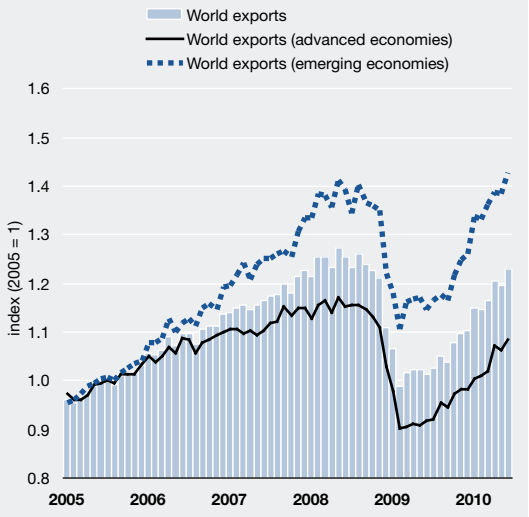
The euro area has posted the weakest growth among the major economic regions, and tightened fiscal policy will withhold its growth figures also in the years to come. However, the euro area saw a faster-than-expected pickup in economic activity in the second quarter of 2010, when the pace of expansion in the USA and Japan had already started to slow (see Figure 1). The exports and industrial production of Sweden and Finland, our main trading partners, seem to have settled on a more solid growth path. Nevertheless, growth rate in Finland is not expected to resume to pre-crisis levels over the forecast horizon. The Russian economy has been robustly recovering owing to national support packages and rising commodity prices. The country is expected to continue to benefit from commodities exports. In order to maintain the growth momentum, the Russian industrial sector needs investment, so it is dependent on the government's ability to attract foreign capital. Supported by exports, the economies of Latvia and Lithuania are also exiting the crisis. Nonetheless, steps taken to deal with their excessive fiscal deficits will constrain domestic demand growth in these countries for several years to come.

Figure 1. Economic growth in advanced economies



Source: Reuters, EcoWin

Figure 2. World trade



Source: CPB Netherlands Bureau for Economic Policy Analysis

World trade volumes have markedly recuperated compared to the low a year ago, and a remarkable share of the contraction had been offset by the summer of 2010. While world trade shrank approximately 14% relative to 2008 last year, the first half of 2010 saw it posting a growth of 18% year-on-year[1] (see Figure 2). The faster-than-expected pickup in trade has benefited all exporting countries, but it has been especially advantageous to those exporting mostly consumer goods or commodities. Demand for investment goods is still weak. The restoration of inventories has played a significant role in the resumption of growth, but the impact of this growth driver will be markedly smaller from now on.

With Estonia's export markets[2] expanding by an average of 6.6% this year, external demand volume, which suffered a rapid fall in 2009, is now back on the growth path. The growth of Estonia's main trading partners will remain below the pre-crisis average in the next years. Export markets are assumed to increase by 6.3% in 2011 and by 6.6% in 2012. The exchange rates relevant to Estonia's foreign trade are expected to remain constant at their current levels over the entire forecast horizon (see Table 1).

With Estonia being a price-taker in international markets, the loan capital price for the country is dictated by Euribor. The forecast uses the 3-month Euribor as an input reflecting the interest rate environment. The assumption of the rate for the forecast period is derived from futures transactions. According to the latter, Euribor is on an upward trend, reaching 1.1% in 2011 and 1.4% in 2012.

The global market prices of all main commodities went up in the first half of the year due to accelerating economic activity. The pickup in demand had the strongest impact on the price of raw materials for food and metals. The global-market price of several food products is currently comparable to the boom-time of 2008. Adverse weather conditions in Eastern Europe damaged crops in Russia, Ukraine and Kazakhstan, making up an additional risk factor, because this has brought about price pressures, irrespective of the global crops production volume being close to a historical high and clearly exceeding the past five years' average[3].

Oil price increases in the world market started at end-2008 from 42 dollars per barrel and stabilised after October 2009 in the range of 70-80 dollars per barrel. The price hike of oil in euro continued throughout first half of 2010 due to the euro weakening by an additional 16%. Commodities are often used as underlying assets for investment, thus volatility in commodity prices

[1] Data until June 2010.

[2] Estonia's main export partners are, in addition to euro-area members, our neighbouring countries: Sweden, Latvia, Lithuania and Russia.

[3] Source: FAO/GIEWS Global Watch (http://www.fao.org/giews/english/shortnews/GlobalSD_update_01092010.pdf, 1 Sept 2010).

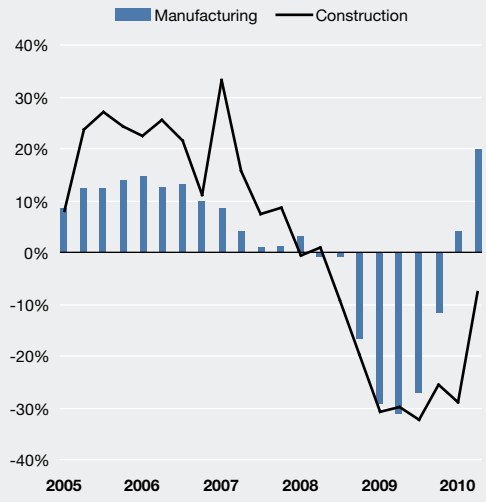
Table 1. External-environment related forecast prospects

	2008	2009	2010	2011	2012
External demand growth* (%)	3.7	-18.5	6.6	6.3	6.6
Foreign trading partners' inflation (%)	6.8	3.0	1.9	2.1	2.2
Oil price (USD/barrel)	97.7	61.9	78.8	84.0	86.8
Interest rate (3-month Euribor)	4.6	1.2	0.8	1.1	1.4
USD/EEK exchange rate	10.7	11.3	11.9	12.0	12.0

* Includes, in addition to euro-area countries, also Estonia's other main trading partners (incl. Sweden, Latvia, Lithuania).

may also have been caused by developments in financial and foreign exchange markets. Since major commodities are the most influenced by global economic growth, markets expect their prices to remain high over the forecast horizon. Nevertheless, inflation pressures in advanced economies are weak against the background of ample underutilised production capacity and high unemployment. Some emerging economies, on the contrary, are experiencing a pickup in inflation due to limited production capacity. The weighted average inflation rate of Estonia's main trading partners is expected to slow to 1.9% this year. Estonia's real effective exchange rate (REER) decreased by 3.7%, year-on-year, in the first half of 2010. The current REER level is comparable to the start of 2008, referring to an improvement in corporate competitiveness. Last year the nominal effective exchange rate (NEER) went up by 4% because of the depreciation of some of our trading partners' currencies.

Figure 3. Annual economic growth in construction and manufacturing



Source: Statistics Estonia

BASELINE FORECAST SCENARIO

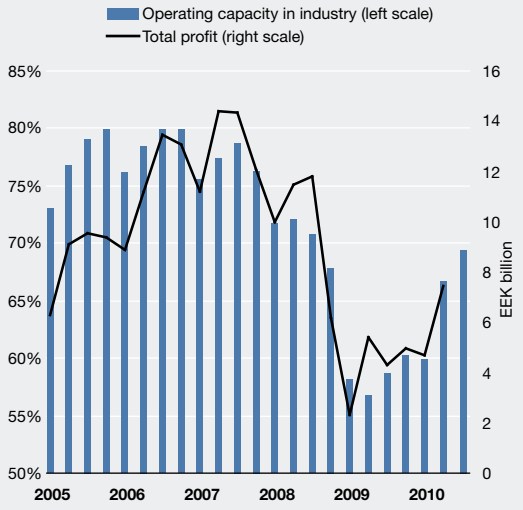
Economic activity

Estonia's economy has exited recession owing to increasing export income. Growth in the first half of 2010 was slightly faster than anticipated in the spring forecast, accounting for 3.1%, year-on-year, in the second quarter. The economy expanded by a total of 1.9% on the first quarter – a result comparable to the boom years' pace. However, the growth rate is going to slow soon, since it has been underpinned by short-term factors arising from the re-launch of production activity and the restoration of orders in export-oriented branches.

Production in the construction sector experienced the steepest fall in the crisis relative to the rapid growth years – it shrank by about 50%. Now there are already signs of a pickup, so growth in the sector will resume soon. One of the past ten years' fastest recoveries in economic activity took place at the start of 2010 in manufacturing, where output volumes soared by a fifth year-on-year in the second quarter (see Figure 3).

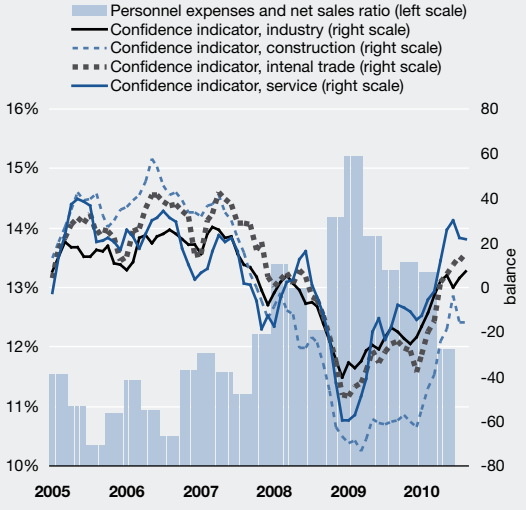
According to the income approach to GDP calculation, the main economic growth drivers lie in gross operating surplus and the mixed income component, which is largely dependent

Figure 4. Operating capacity and total profit



Sources: Estonian Institute of Economic Research, Statistics Estonia

Figure 5. Economic sentiment indicators and personnel expenses

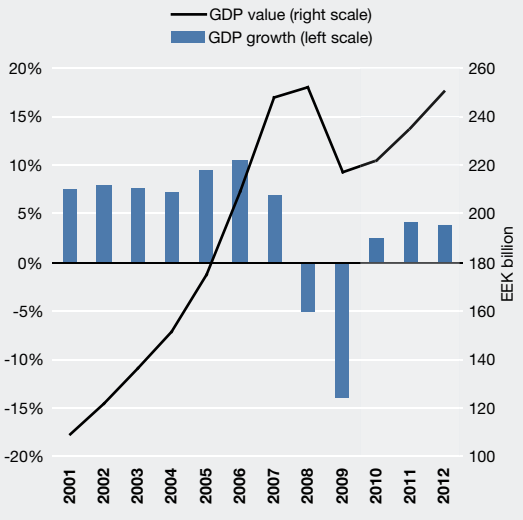


Sources: Estonian Institute of Economic Research, Statistics Estonia, Eesti Pank

on corporate profits. Business statistics show that profits posted an increase of 38% year-on-year in the second quarter, reaching the level of 2004–2005. The manufacturing sector accounted for a notable share in the upsurge. Larger profits have improved enterprises' investment ability. A survey of the Estonian Institute of Economic Research shows that industrial capacity utilisation stood at 69% in the third quarter, which is close to pre-boom levels (see Figure 4). The robust expansion in the capital stock used for production upheld the economic growth potential until the eruption of the crisis. Since capital investment suffered a substantial setback in the course of the recession, the growth potential is likely to remain several times below earlier levels over the entire forecast horizon (see Box 1). Here it should be kept in mind that a significant share of production capacity is still underutilised in domestic-demand oriented sectors.

The resumption in economic activity has exerted a positive impact on both confidence and expectations, which have reached the average level of earlier years. However, conservatism is likely to

Figure 6. Economic growth and GDP value



Source: Statistics Estonia, Eesti Pank's calculations

have increased as a result of the crisis, and this hampers a full pass-through of the more positive expectations to real indicators. The years of rapid wage growth saw a marked increase in the share of labour costs in businesses' sales turnover: from 11% in 2005 to 14% in 2009. The indicator had declined to 12% by the second quarter of 2010, having normalised at the pre-boom level (see Figure 5). As a result, the discrepancy between wages and productivity in 2006–2008 has eased to a great extent and companies' economic situation of has improved.

It is likely that quarter-on-quarter growth will slacken in near future, whereas year-on-year growth will gather some more momentum. Economic growth will be in the range of 3–5% in the forecast horizon, which is below the average of the past decade, and the volume of the economy (in value terms) will reach close to the pre-crisis level (see Figure 6 and Table 2).

Table 2. Economic forecast by key indicators

							Difference from previous forecast		
	2007	2008	2009	2010	2011	2012	2010	2011	2012
GDP (EUR billion)	15.8	16.1	13.9	14.2	15.1	16.1	0,5	0.8	1.1
GDP, chain-linked volume change (%)	6.9	-5.1	-13.9	2.5	4.2	3.8	1.5	0.1	0.5
HICP (%)	6.7	10.6	0.2	2.4	2.7	1.7	1.2	1.6	0.4
GDP deflator (%)	10.5	7.2	-0.1	-0.1	1.8	2.7	1.5	1.4	1.4
Current account (% of GDP)	-17.2	-9.7	4.5	1.3	-2.6	-2.8	-2.1	-4.1	-1.6
Current account plus capital account balance (% of GDP)	-16.2	-8.7	7.3	4.5	0.7	0.5	-2.1	-4.3	-1.8
Private consumption expenditures, chain-linked volume change (%)	8.6	-5.6	-18.8	-0.9	6.7	4.3	4.7	5.1	0.5
Government consumption expenditures, chain-linked volume change (%)	3.9	3.8	0.0	-0.9	0.3	0.4	0.1	1.5	-1.0
Fixed capital formation, chain-linked volume change (%)	6.0	-15.0	-33.0	-7.1	16.9	9.1	-9.0	6.3	-0.5
Export, chain-linked volume change (%)	1.5	0.4	-18.7	14.3	6.4	6.9	6.5	-1.7	0.1
Import, chain-linked volume change (%)	7.8	-7.0	-32.6	17.8	10.4	7.9	11.7	1.4	-2.9
Unemployment rate (ILO) (%)	4.7	5.5	13.8	17.8	14.8	13.4	1.8	0.3	0.2
Employment growth (%)	1.4	0.2	-9.2	-5.0	3.2	0.7	-2.3	1.8	-0.4
GDP growth per person employed (%)	5.4	-5.2	-5.1	7.9	0.9	3.1	4.1	-1.7	0.9
Real wage growth (%)	12.0	4.8	-3.7	-0.8	0.6	1.6	3.4	0.5	-0.3
Average gross wage growth (%)	20.4	13.8	-4.6	0.6	3.0	3.3	4.4	1.8	0.1
Nominal money supply growth (%)	14.1	6.2	0.8	5.6	7.2	6.5	5.4	4.6	2.5
Nominal credit growth (%)	30.2	7.3	-6.4	-3.7	0.9	1.5	-1.3	-1.4	-2.4
Gross external debt (% of GDP)	109.6	118.2	125.5	120.5	100.9	96.4	-4.2	-8.5	-13.3
General budget balance (% of GDP)	2.6	-2.8	-1.7	-1.2	-1.1	-1.3	1.1	1.1	0.5
General budget balance, excluding revenue and expenditure of emission quotas (% of GDP)	2.6	-2.8	-1.7	-2.0	-0.9	-0.8	0.2	1.4	0.9

Sources: Statistics Estonia, Eurostat, Eesti Pank

ESTONIA'S POTENTIAL GDP AND ITS GROWTH

GDP data have been revised quite often and to a significant extent by Statistics Estonia in recent years. Earlier vintages of the GDP time series deviate from the most recent ones (8 September 2010) by up to 8 per cent (see Figure A). The systematic difference in both levels and growth rates (see Figure B) has caused the need to re-estimate also potential GDP and potential growth.

Figure A. Earlier vintages of GDP data compared to the latest release (8/9/2010), % (seasonally adjusted)

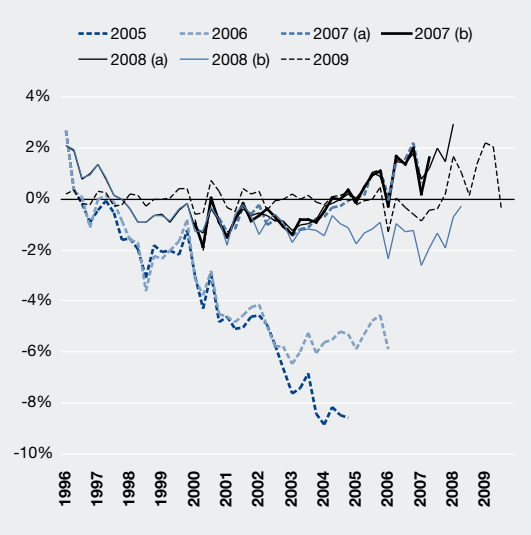
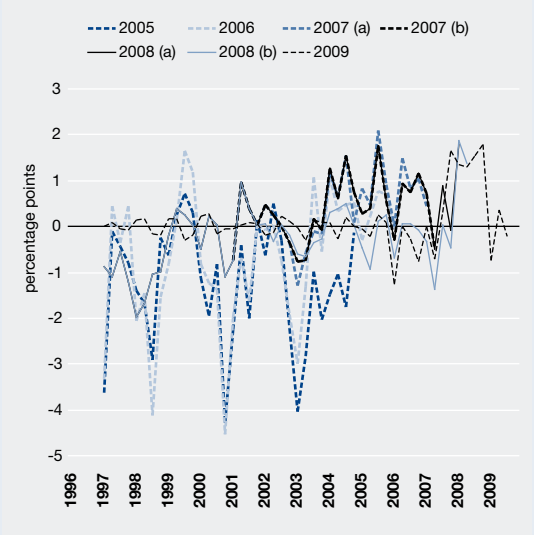


Figure B. Earlier vintages of GDP growth data compared to the latest release (8/9/2010), pp. (seasonally adjusted)



In order to better grasp potential GDP, the number of its factors has been significantly enhanced compared to previous methods. The research[4] published in the Eesti Pank Working Paper Series at the beginning of 2010 explained potential GDP as a function of four factors. The advanced model presented below distinguishes between 13 input variables. These variables are divided into indicators of labour market and demography, physical production capital stock, and production technology. Potential GDP (Y^*) is expressed as the sum of private sector's potential GDP (Y^{p*}) and public sector's potential GDP (Y^{g*}), with the assumption that the public sector operates at its potential level at any given moment in time, $Y_t^{g*} + Y_t^g$:

$$Y_t^* = Y_t^{p*} + Y_t^{g*} \quad (1)$$

The assumption regarding the public sector has been made based on the consideration that market powers do not determine public sector's output in the same way as they determine the output of the private sector. Thus, it is impossible to define the cycle on the same basis.

The private sector's potential GDP is a function of household buildings and facilities (B), corporate buildings and facilities (S), machinery and equipment (M), IT capital (T) and production capacity utilisation in the equilibrium state (c^*). The shares of capital types are φ = 0.18, τ = 0.37, μ = 0.02 and κ = 0.02:

$$Y_t^{p*} = A_t^* (c_t^* B_t^{\varphi} S_t^{\tau} M_t^{\mu} T_t^{\kappa})^{\alpha} [(N_t \eta_t \lambda_t^* (1-u_t^*) - L_t^{g*}) H_t^{p*}]^{(1-\alpha)} \quad (2)$$

[4] Potential Output and the GDP gap in Estonia – A Macro Model Based Evaluation, Working Papers of Eesti Pank, 3/2010.

Labour input on a wider scale is defined by the size of the population (N) and the share of working-age population (η). On the other hand, labour input is affected by the equilibrium labour participation rate (λ^*) and the non-accelerating wage rate of unemployment NAWRU (u^*), shaped predominantly by labour-market institutions. The expression $N\eta\lambda^*(1-u^*)$ as a whole stands for the number of people employed in the equilibrium state of the economy. As equation (2) expresses the private sector's potential GDP, public sector's employment (L^{g*}) has been deducted from the total number of the employed. The actual labour force contribution is calculated by multiplying the number of the employed in the private sector with the number of working hours per capita (H^{p*}). The share of labour contribution in potential GDP is 54.4% and that of capital contribution 45.6% (α=0,456).

Inserting the data into equation (2) reveals the contribution of each individual component to potential growth. Potential growth ranged from 6 to 8% in the pre-crisis period (i.e., until 2007), with machinery and equipment being the biggest contributor at an average of 2.6 pp. Production technology also made a significant contribution of approximately 2.4 pp[5]. Corporate and household buildings and facilities contributed an average total of 2.5 pp, with the share of buildings and facilities showing a significant increase in the period of rapid growth in bank loans. Potential growth has also been positively affected by a decrease in NAWRU as well as an increase in the share of the working-age population, albeit the total population has decreased and had a negative effect (see Table A).

Table A. Potential GDP growth (%) and contributions of growth components (pp)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Technology	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38
Corporate buildings and facilities	1.33	1.40	1.41	1.62	1.79	2.02	1.98	1.95	1.65	0.99
Working hours	-0.03	-0.08	-0.10	-0.12	-0.10	-0.10	-0.11	-0.10	-0.08	-0.05
Households' buildings and facilities	0.45	0.49	0.56	0.68	0.84	0.98	1.23	1.24	0.84	0.47
IT capital	0.26	0.20	0.16	0.16	0.21	0.17	0.24	0.27	0.22	0.07
Public-sector employment	0.19	-0.05	-0.28	-0.44	-0.48	-0.44	-0.34	-0.21	-0.11	0.00
Machinery and equipment	2.64	2.75	2.84	3.56	2.58	1.98	2.16	2.09	1.64	0.24
NAWRU	0.21	0.52	0.82	0.83	0.64	0.39	0.18	0.07	0.00	-0.06
Population	-0.39	-0.28	-0.32	-0.28	-0.27	-0.20	-0.16	-0.13	-0.08	-0.03
Working-aged	0.37	0.33	0.31	0.33	0.28	0.25	0.19	-0.06	-0.18	-0.26
Public-sector GDP	-0.97	-1.05	-0.95	-0.88	-0.92	-1.06	-0.44	-0.57	-0.96	-0.84
Potential GDP	6.44	6.62	6.83	7.83	6.94	6.36	7.31	6.92	5.33	2.89

The contribution of IT capital, machinery and equipment showed a rapid decrease after the start of the global crisis. Both types of capital are relatively quickly depreciable and the shrinkage in additional capital investment significantly lowered the capital growth rate. Moreover, end-2009 saw a fall in the total volume of machinery and equipment, hampering potential growth.

Growth in public sector's GDP was smaller than growth in private sector's GDP in the last decade, with the corresponding contribution to potential GDP remaining negative. The slower growth in public sector's GDP reduced potential growth by an average of 0.9%. The labour participation rate and capacity utilisation factor are constants in the equilibrium state, with their contribution to potential growth in the period being nil.

[5] Production technology itself cannot be directly measured. It is filtered on the basis of equation (2) as the so-called Solow residual, by implementing the following equation:

$$\ln(A_t)=\ln(Y_t^p)-\alpha[\ln(c_t)+\varphi\ln(B_t)+\tau\ln(S_t)+\mu\ln(M_t)+\kappa\ln(T_t)]-(1-\alpha)\{(N_t\eta_t\lambda_t(1-u_t)-L_t^g)H_t^p\}.$$

The GDP gap, calculated on the basis of actual GDP and potential GDP, has shown significant fluctuations in the period 1998–2009. The GDP gap estimates dropped to –21% in 2009 from the peak of 8.1% in the first quarter of 2007 (see Figure C).

Figure C. GDP gap (non-adjusted estimate)

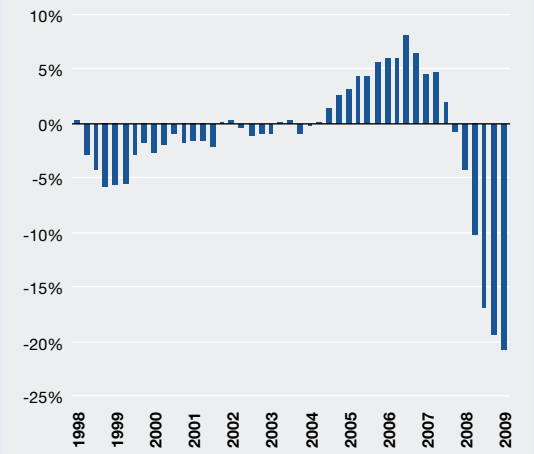
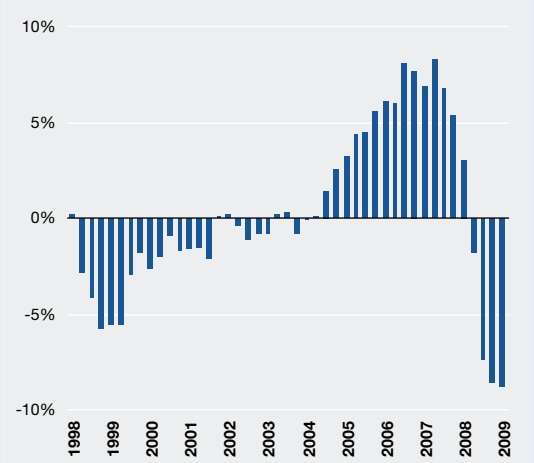


Figure D. GDP gap (adjusted estimate)



Various studies have shown that a crisis reduces potential GDP, and hence also the negative GDP gap estimates. The same could be said about the effects of the recent global crisis. Unfortunately, the adjustment in the potential GDP of each individual country can only be evaluated in retrospect, i.e., years later. However, preliminary conclusions may also be drawn on the basis of previous research. Cerra & Saxena (2008) observed 190 countries in the period 1960–2001 and concluded, on the basis of the comprehensive sample, that wealthier-than-average countries experienced an average drop of 12% in potential GDP after crises in the banking sector[6]. Accordingly, the adjusted estimate of the Estonia's 2009 GDP gap would be –8.3% on average and the decline phase symmetric to the previous growth phase (see Figure D). Also the IMF[7] and the European Commission[8] estimate Estonia's 2009 GDP gap to be of about the same size, approximately –8% and –10%, respectively. Even if adjusted, the last decline phase of the cycle will be somewhat deeper than the low after the Asian and Russian crises, when the gap was about –6%.

[6] Cerra&Saxena (2008), "Growth Dynamics: The Myth of Economic Recovery", American Economic Review, 98, 439–457.

[7] IMF (2010), Republic of Estonia: Staff Report for the 2009 Article IV consultation, Country Report No. 10/4.

[8] European Commission (2010), Cyclical Adjustment of Budget Balances.

Domestic demand

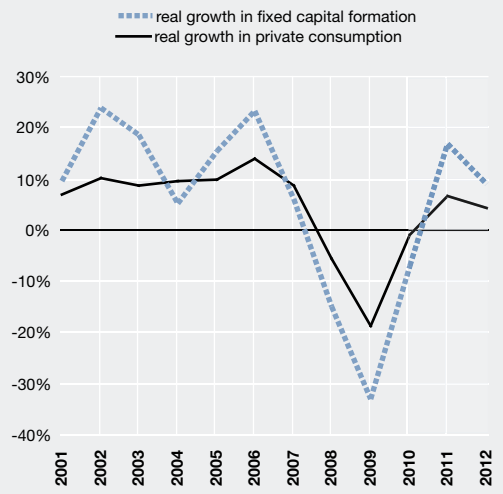
Private consumption

Contraction in Estonia's domestic demand in recent years has been one of the steepest in Europe. Private consumption at constant prices was down by nearly 23% in 2009 compared to 2007. However, the decline in private consumption has been rapidly slowing year-on-year over the past quarters and is likely to return to growth soon.

The rapid shrinkage in household income has come to an end. Wage decline ceased in the second quarter of 2010 and seasonally and working-day adjusted employment among the Estonian residents increased by more than 3% relative to the first quarter. Further developments in income and private consumption depend on the recovery of general economic activity and export revenue. Household income will increase more slowly than in pre-crisis years, reaching 6.5%. As a result, private consumption growth will also be more subdued, remaining in the range of 4–7% (see Figure 7).

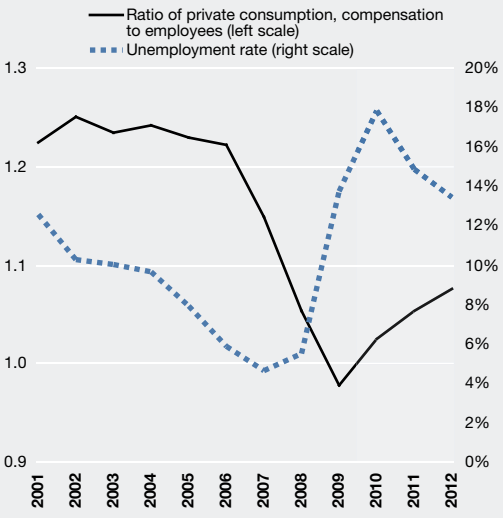
The saving rate of households (ratio of savings to disposable income), which has recently surged, plays an important role in the recovery of private consumption. There are both upward and downward risks to the private consumption forecast in this respect. In pre-crisis years, the saving rate of Estonia's households was among the lowest in Europe. Meagre savings are certainly one of the reasons households were no longer able to sustain their earlier consumption habits once the crisis erupted (see Figure 8). Recession-time uncertainty made households more cautious and increased the propensity to save. As a result, the household saving rate will be higher in the years to come compared to the rapid expansion period. The ongoing reversal of the economic confidence crisis is reducing saving for a rainy day, thus contributing to the revival of consumption. Another factor reflecting a decrease in the

Figure 7. Growth in private consumption and investment



Sources: Statistics Estonia, Eesti Pank

Figure 8. Change in propensity to consume



Source: Statistics Estonia, Eesti Pank

propensity to save is the consumer confidence indicator published by the Estonian Institute of Economic Research, which has markedly improved year-on year and nearly returned to its boom-time levels.

Investment

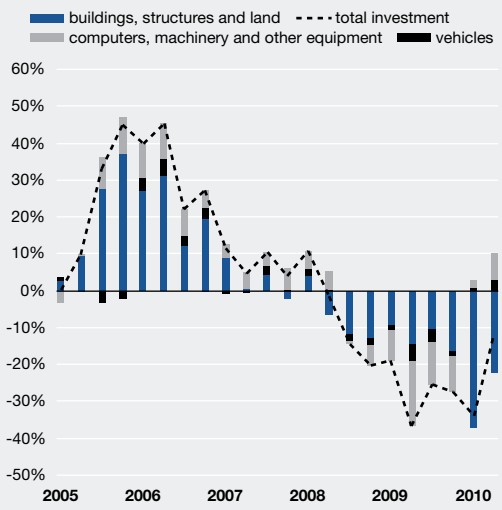
Investment as a ratio to GDP contracted from 34% recorded in 2006 to 22% in 2009. Though the decline has been extensive, a substantial share of production capacity continues to be underutilised in several sectors of the economy. Although capacity utilisation in the economy as a whole has picked up compared to 2009, it is still low in longer-term comparison.

Investment structure has also changed relative to the rapid growth years. Investment shrinkage in the second quarter of 2010 continued to be driven by real-estate related investment (acquisition of building and facilities, construction and renovation, purchase of land). Investment in other fixed assets, at the same time, is up on a year earlier (see Figure 9).

Although new orders are picking up, many companies do not yet need to make large-scale investments to step up their output volume, since the existing capacity is still sufficient. However, depreciation exceeded investment in several fields of activity in 2009, referring to shrinking production capacity. This means some companies will soon have to increase investment to maintain their current potential. With post-crisis output volumes at very low levels, even rather small quarterly growth may render extraordinary growth figures in 2010–2011, year-on-year. For instance, according to Statistics Estonia, the investment of construction enterprises soared by 69%, year-on-year, in the second quarter of 2010. The hike should nevertheless not be overestimated, since the reference base is low and the result makes up just 23% of the investment made in the second quarter of 2007.

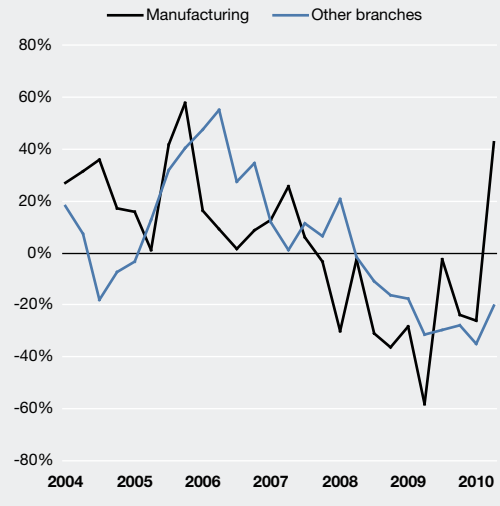
Exiting the crisis proceeds unevenly across sectors. Export-oriented companies are again approaching pre-crisis output volumes and will soon need new investment to ensure sustainable

Figure 9. Enterprise investment by type of asset



Source: Statistics Estonia

Figure 10. Annual growth of enterprise investments

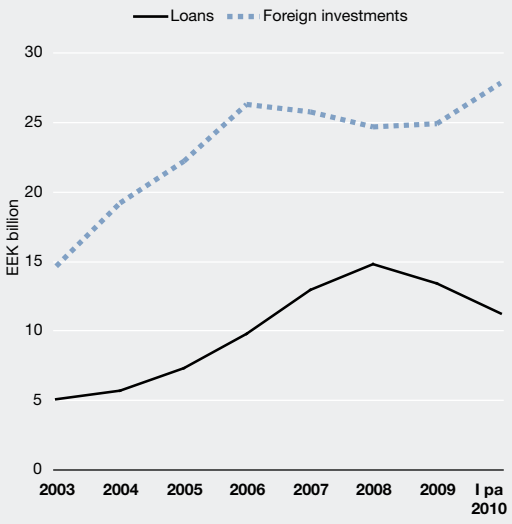


Source: Statistics Estonia

growth. Manufacturing companies responded faster to the crisis than other enterprises and are now also a step ahead of others (see Figure 10). Manufacturing companies' investment increased by 43% year-on-year in the second quarter of 2010.

Support from banks is very important for a rebound in investment activity. Although the economy has recovered compared to 2009, corporate credit turnovers are still at levels characteristic of end-2009. Since access to credit is more limited and interest margins are higher than in other countries, companies that wish to invest are forced to rely on other sources. Financial-account data show that in the first quarter of 2010, the ratio of non-financial companies' shares and other units to their total financial obligations stood at approximately 53.7%, which is close to the more stable pre-boom levels. The profitability of companies is on the mend, which translates into investable internal resources. The forthcoming adoption of the euro is a strong signal of the sustainability of Estonia's economic stability and strengthens confidence in local businesses. Higher confidence contributes to international cooperation and creates better preconditions for the inflow external investment (see Figure 11).

Figure 11. Industrial sector foreign investment and loan stock



Source: Eesti Pank

Stocks

Although companies' ratio of stock to turnover has declined relative to mid-2009, it is still higher than a couple of years ago. According to Statistics Estonia, the balance of stocks in the manufacturing sector accounted for some 51% of turnover in the second quarter of 2010. The indicator stood at 59% a year earlier and at 45% in the second quarter of 2006. Stocks start to increase in companies that are re-launching and expanding production. Larger production volumes call for larger raw materials and finished goods stocks.

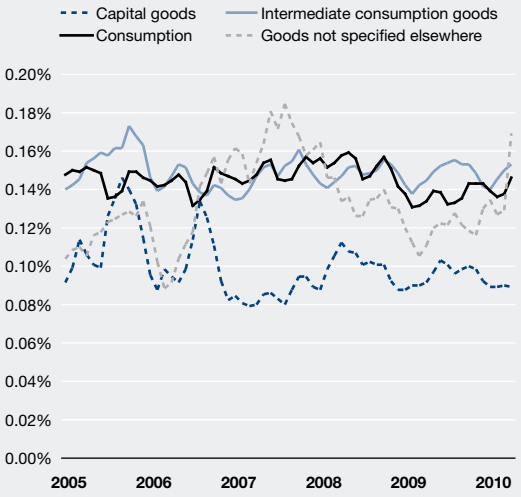
External balance and competitiveness

The market share[9] of Estonia's exports in the EU common market increased in the first quarter of 2010. Compared to a year ago, the country's market share has expanded in both intermediate goods and consumption goods market. As to the capital goods market, the share of Finnish exports decreased and that of Swedish exports increased, leaving Estonia's market share relatively unchanged. The market share of intermediate goods has remained unchanged, while that of consumption goods is on a slight upward trend (see Figure 12).

At the start of 2009, transit flows were the main driver of exports growth, while the second half of the year saw a rise in the exports of most of goods groups. Goods exports in current prices soared by nearly 23% year-on-year in the first quarter of 2010. This is more than expected in the spring forecast. The hike is partly due to the rebound in global growth, which is contributing

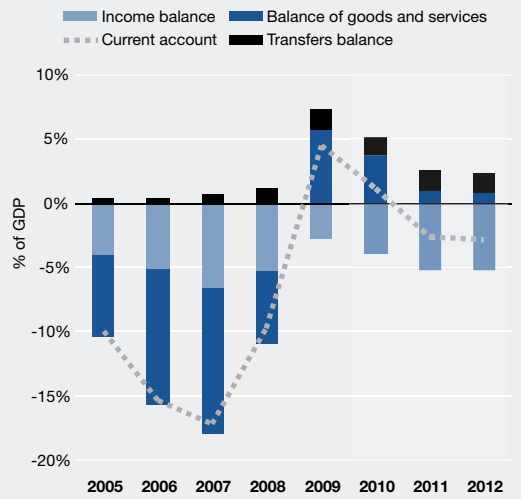
[9] Share of Estonia's exports in the total imports of the target market. Source: Eurostat, Eesti Pank's calculations.

Figure 12. Market shares of Estonian exports in the European Union



Source: Eurostat, Eesti Pank

Figure 13. External balance



Source: Eesti Pank

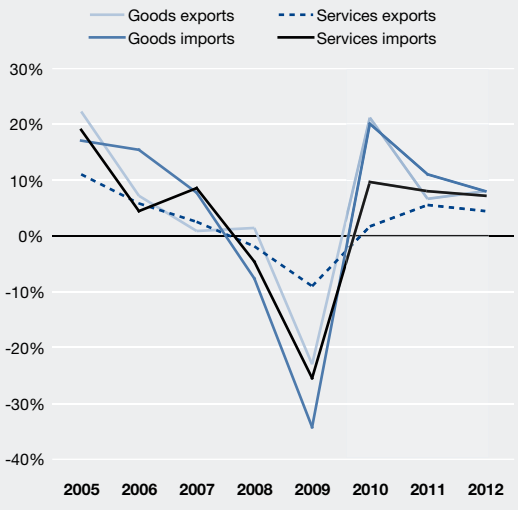
to faster-than-anticipated restoration of inventories. Further export growth will be accompanied by the need for additional investment in order to gradually restore and expand production capacity.

The second-quarter import growth primarily shows that stocks and the exporting sector are on the mend. Goods imports increased by 28%, year-on-year, in the second quarter. Private consumption and investment continue to contribute to imports only modestly. Domestic demand is, however, expected to bounce back over the next years, which means the trade deficit will start to widen again. This will occur as a result of recovering domestic demand along with growing investment goods imports. The current account deficit will nevertheless be markedly below the average of previous periods, accounting for about 3% of GDP by 2012 (see Figure 13).

Services exports remained considerably more stable in the crisis than goods exports. Since the volume of services exports did not shrink much during the downturn, its current annual growth figures are also less impressive. According to the quarterly balance of payments, services exports increased some 4% year-on-year in the first half of 2010. However, the structure of services exports underwent some changes due to the contraction in goods exports. The decline in external-trade turnover reduced also transportation services exports, though to a smaller extent, as the transportation sector was able to find new export possibilities, especially in the field of servicing transit.

Preliminary estimates show that services imports grew by 8% year-on-year in the first half of 2010. Services imports expanded due to a rise in goods imports, which brought along growth in transportation services imports. Goods imports should continue to increase over the coming years (see Figure 14).

Figure 14. Growth rates of exports and imports



Sources: Statistics Estonia, Eesti Pank

The Estonian exporters' competitive advantage lies in small labour costs and in the ability to rapidly adjust to changes. These characteristics have proved to be very valuable in the global supply chain, where cost cutting is becoming increasingly more important. Since wages here are several times lower than in Scandinavia, many enterprises there have announced plans to expand their production units to Estonia. In the next years, investment in the exporting sector will push exports growth to levels exceeding the pre-crisis peak.

Estonia's gross external debt will decrease by approximately 13% in 2011. This will partly be caused by the forthcoming reduction of the banks' reserve requirement ratio from the current 15% to 2%, the norm in the euro area. It is likely that as a result of this change, most of the newly available resources will at first be moved out of Estonia. The expanding deposit base and the loan portfolio, which is shrinking this year as well, also contribute to the repayment of resources borrowed from abroad. As a result of all the listed factors, gross external debt will decline to 96% of GDP in 2011 and to 90% of GDP in 2012.

Labour market

The labour market adjusted to the crisis robustly and in various ways. Both the number of the employed and the number of working hours per employee decreased markedly, whereas hourly wages also contracted somewhat. The wage fund shrank an annual 14.5% in 2009 and an additional 10.1% in the first half of this year. This is considerably faster than the fall in GDP in current prices, which made up 13.8% and 0.0%, respectively. The adjustment narrowed the wage and productivity gap that had arisen in the rapid growth years. While exiting the crisis the economy is at first making use of the buffers that developed in the course of the recession (e.g., it is possible to increase the number of working hours per employee), so near-time growth will be more productivity-based than before. Job creation will be modest until the buffers last. High unemployment is socially difficult to bear and contains a high risk of stagnation. Therefore it is very important that labour market policy places special emphasis on the maintenance or development of the professional skills of the unemployed.

Employment and productivity

The recession period was characterised by a rapid fall in productivity. In 2009, productivity per employee plummeted by 5% and since it was impossible to curb labour costs at the same rate, unit labour costs hiked by 1.3%. Now the situation is exactly opposite: robust productivity growth is accompanied by the trend of shrinking unit labour costs. In the second quarter of 2010, productivity growth in the total economy was 9.3% and nominal unit labour costs declined 9.3% year-on-year. Since part of employees and production capacity continue to be underutilised, the number of working hours per employee is expected to increase in 2010 along with the economic

recovery, whereas companies are not looking to recruit significant numbers of staff. As a result, the average annual number of the employed will be smaller than in 2009, although the downward trend in employment will turn this year. Productivity growth will not be as fast in the next quarters, and it is likely to peak already in 2010.

The number of the employed will go up in 2011–2012, but will still be much smaller than before the crisis. Other countries' experiences show that it is possible for economic growth to resume for up to two years without a significant rise in new jobs[10]. This means long-term unemployment in Estonia will continue to increase.

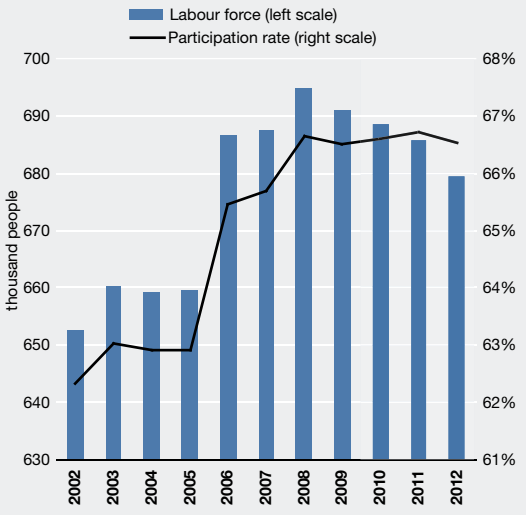
Unemployment

Unemployment will remain high throughout the forecast horizon, since relatively few of the unemployed are returning to employment and the difficult economic situation does not allow people to give up looking for work. The threat of discouragement is serious, since long-term unemployment damages both the motivation to look for a job and the competitiveness of job seekers. According to Statistics Estonia, the number of people who had been jobless for at least a year amounted to 58,200 in the second quarter of 2010. Irrespective of the fact that the total number of the unemployed will decline somewhat faster than before in the third quarter of 2010, the amount of the long-term unemployed is expected to grow for at least a year and a half. Structural unemployment is also likely to increase, although a high unemployment rate does not always give reason to expect the emergence of structural unemployment. The economy needs time to resume after extensive reorganisations and the creation of new jobs will start only later.

The share of the construction sector in total employment nearly halved during the crisis compared to 2007. The professional skills of the people that have been made redundant from that sector may not have the qualifications required to fill the vacancies. This may make it difficult for employers to find suitable workforce, placing upward pressure on wages. Structural changes in the economy pave the way for the emergence of structural unemployment. Therefore, it is very important to offer the unemployed re-skilling programmes and training. The current economic situation means that employees laid off from the manufacturing sector in the course of the recession are also a risk group.

The high unemployment forecast is also based on the assumption that the economic activity of the working-age population will not decrease much in the years to come (see Figure 15). The expectation rests on changes in the age structure of the working-age people, continuous raising of the pension age and the risk of poverty. As a result, the number of the unemployed will decrease only slightly more compared to the increase in the amount of the employed (see Figure 16).

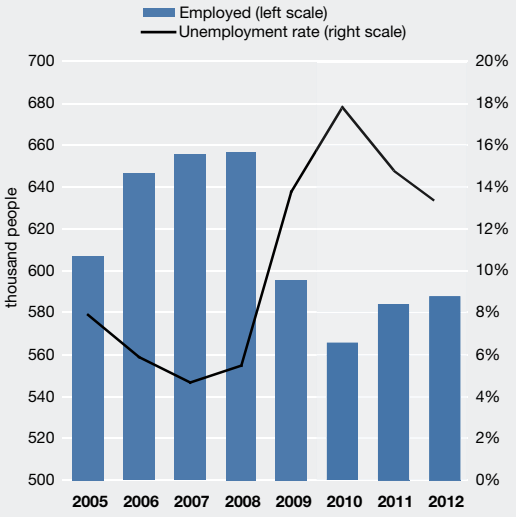
Figure 15. Labour force participation



Source: Statistics Estonia, Eesti Pank

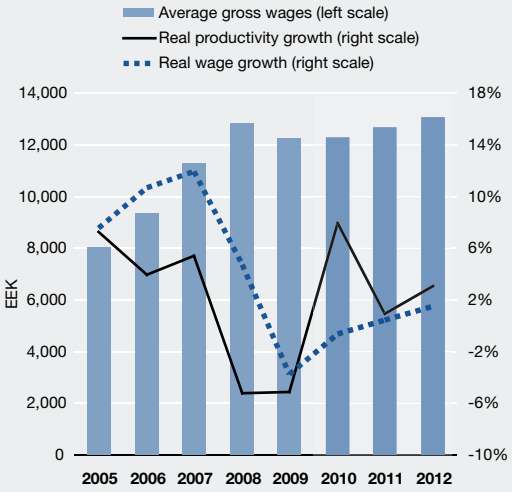
[10] Source: OECD Economic Outlook 87, June 2010; OECD Employment Outlook, 2010.

Figure 16. Employment and unemployment



Source: Statistics Estonia, Eesti Pank

Figure 17. Wages and productivity



Source: Statistics Estonia, Eesti Pank

One factor which may delay a decline in the number of the unemployed is their high reservation wage. It has considerably decreased compared to the boom years, but may still be an obstacle in the creation of jobs with smaller value added.

Wages and labour costs

It is normal for wages to react to a recession with a lag, but this time they have proved surprisingly rigid, especially in light of earlier forecasts. Wage costs have been mostly adjusted by curbing the number of employees and working hours. Gross hourly wages decreased by a mere 3% in 2009 and 2.2% in the first half of 2010. This is a relatively small reduction, looking at the almost 15% contraction in nominal GDP.

Gross monthly wages have decreased more than gross hourly wages, since they have been affected not only by curbing but also by such temporary measures taken in 2009 as unpaid leave and part-time work. Gross monthly wages dropped 4.6% in 2009 and only 0.6% in the first half of 2010. When the economy recovers, the effect of the one-off measures adopted by enterprises will withdraw fast and average gross monthly wages are expected to resume their year-on-year growth already in the second half of 2010 (see Figure 17). Upon the emergence of labour-market hysteresis[11] there appears certain asymmetry in the resumption of growth after a sharp and prolonged contraction – average wages start growing, although employment does not yet increase.

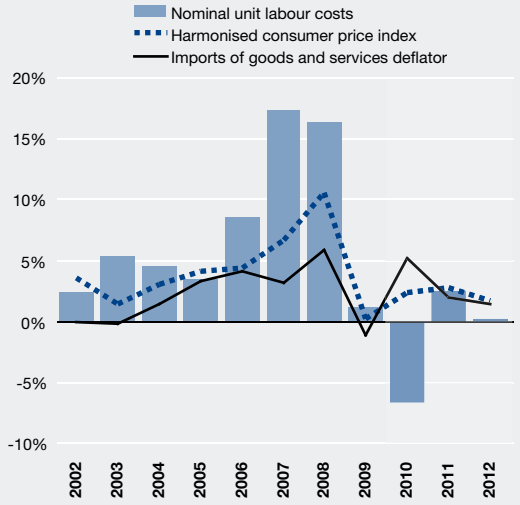
The wage fund will recover more slowly than nominal economic growth, which means the ratio of wage costs to GDP and unit labour costs will both decline. These developments are more marked in 2010 and their impact will wane later.

Prices

The extent of nominal economic adjustment in Estonia was smaller in 2009 than the recession gave reason to anticipate – both wages

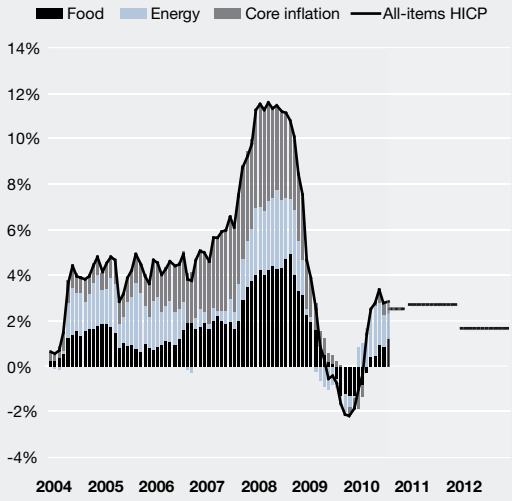
[11] Hysteresis is a property of the labour market and means that rapidly expanding unemployment may not shrink at the same rate and responds to economic recovery with a much longer lag.

Figure 18. Factors of consumer price inflation



Sources: Statistics Estonia, Eesti Pank

Figure 19. Annual and expected growth of the Harmonised Index of Consumer Prices



Sources: Eurostat, Eesti Pank

and prices decreased less than expected (see Figure 18). Since Estonia's enterprises are price-takers in foreign markets, the prices of manufactured goods and food, which follow global market trends, underwent the largest adjustments. Prices remained more rigid in the services sector, which is closed to external competition.

In 2010, inflation pressures emerge mostly from global commodities markets. Domestic demand remains weak and the impact of wage growth recovery on prices will be limited due to rapid productivity pickup. The forecast expects inflation to average to 2.4% in 2010 and to 2.7% in 2011 (see Figure 19).

The rate of inflation will quicken in the months to come and reach a peak (more than 4% year-on-year) at around the turn of the year. Price growth will gradually slow to the level of 2% by end-2011. Inflation risks are on the upside due to a sharp increase in commodity prices in global markets.

***Administered prices*[12]**

Rises in indirect taxes have been contributing to inflation and will account for 1 pp in 2010. The main factor here has been the increase in the value added tax, which went from 18% to 20% in July last year, but its impact phased out of the reference base this summer. In January this year, excise duties on motor fuel, alcohol and tobacco were also raised. Since companies have accumulated large inventories, consumers will feel the effect of the new tobacco excise duty in the second half of the year. The share of administrative factors in price growth will decline in 2011 according to currently available information. The forecast does not weigh the possible effects of the new Act on Establishment of Price Restrictions on Monopolies.

Food

Weather conditions have been adverse for agriculture in both last and this year. Due to

[12] Administered prices are either prices that are directly or indirectly regulated by the state or goods the price of which includes a large share of excise duties (a total of 30% of the consumer basket). Among other things, the definition covers thermal energy, electricity, alcohol, tobacco and motor fuel.

the extremely cold winter in Europe, the price hike of fresh vegetables accelerated to 28% year-on-year in April. The price of vegetables has returned to a normal level by now, whereas the price of cereal has soared in the global market. The jump in cereal prices will pass through to meat, bakery and alcohol prices. Cheese and butter exports have increased on the back of rising demand and pressures on dairy prices have become stronger. The extent of rises in food prices also depends on the EU's agricultural policy. This means the pass-through of global market prices to those of Estonia may not be one-to-one. Another important factor is weak competition in our domestic market.

The forecast expects the prices of processed food to rise markedly month-on-month until the end of 2010. Year-on-year, the inflation of processed food will reach about 6% in the first quarter of 2010.

Energy

The rise in oil prices in the global market started at end-2008 and the weakening of the euro turned oil imports even more expensive in the first half of 2010. Another factor contributing to the motor-fuel price hike was the rise in excise duties in July 2009 and January 2010, which accounted for some 0.4 pp of annual inflation. The aftermaths of the price surge of oil and the weakening of the single currency have not yet reached Estonia in their full extent. For instance, this will affect the price of natural gas imported from Russia, which will in turn raise the price of thermal energy in the heating period (by 7–8%). According to crude oil futures, markets do not expect the price level to change much until the end of 2011. The forecast's assumption that electricity will become 6% more expensive year-on-year is based on previous years' experience.

Manufactured goods

The inflation of manufactured goods will be small in the forecast period, remaining below 1% year-on-year. The main factor behind fluctuations in the price of manufactured goods is the price-level seasonality of clothing and footwear. Since the price level of clothing and footwear sold in Estonia is already above the EU average, we are not forecasting a further increase. Among other factors, the end of euro depreciation will help ease upward price pressures on durable goods (cars, home electronics, etc.) in the next years. Looking at consumption goods, mostly water supply and medicines went up in price in previous years. The role of these items in inflation will also decrease over the forecast horizon.

Services

Price decline in the services sector has ended and price growth accelerated to 1% year-on-year in August. Two things should be highlighted here: contraction in rental prices stopped at the start of 2010 and the mobile communication services prices were extraordinarily volatile. Since labour is the primary production input of many services, changes in wages are the main determinants of services prices. The impact of wage growth on inflation will be limited throughout the forecast horizon due to high unemployment.

General government

General-government expenditure

In the case of an economy that is so small and open as Estonia, the government has very limited possibilities to balance fluctuations in economic growth. Attempts to do so may also turn out to be very costly in the long run.

General-government expenditure grew to 45% of GDP during the downturn, which is an unusually high ratio for Estonia. In order to turn this trend, the government applied extensive austerity measures in 2009. All the main expenditure types were curbed, except for social transfers to households. The measures will keep the government's consumption expenditure relatively unchanged also in 2010. The forecast expects

the government to keep spending growth in 2011–2012 slower than tax revenue growth, so that the consolidated budget balance could be restored in the medium term. The government's fiscal objective expressed in the updated convergence programme and in the 2011 draft budget is to achieve a balance in 2013 at the latest.

General government income

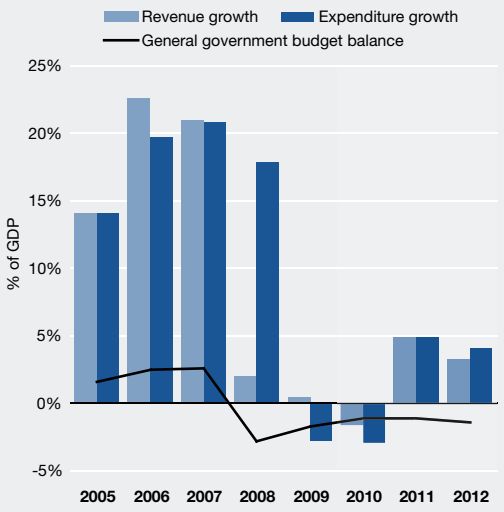
Since economic recovery is underpinned by goods exports, GDP will be on average less tax abundant in 2010–2012 than before the crisis. The 2009–2010 tax increases will, however, keep the general tax burden relatively stable at 34–35% of GDP. The impact of the temporary and one-off measures, such as asset sale and forceful withdrawal of dividend income, is still palpable in 2010. From then on, the effect of the income-boosting temporary measures will start to recede rather fast. The general government's budget revenues continue to be supported by funds from the EU budget.

Fiscal balance and debt[13]

The government has set the objective of restoring consolidated budget surpluses as soon as possible. However, achieving this goal without resorting to additional measures will not be possible in the forecast period. The phasing out of income-boosting extraordinary measures will keep the consolidated budget's nominal deficit in the range of 1–2% of GDP in 2010–2012 (see Figure 20). Structural fiscal balance (i.e., adjusted to cyclical effects and extraordinary income), on the other hand, is improving constantly and will post a surplus by the end of the forecast period (see Figure 21).

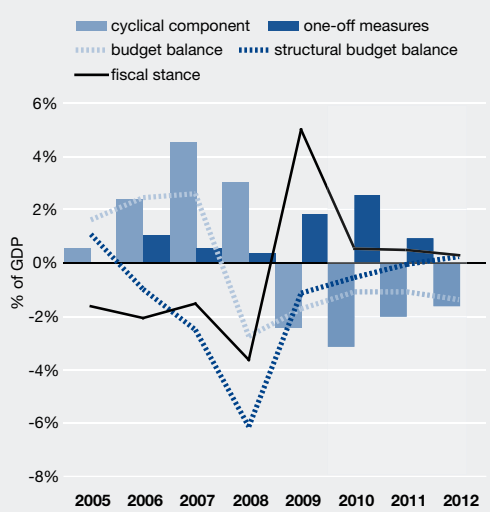
Although consolidated budget deficit has so far been financed from the buffers accumulated in

Figure 20. Budget balance



Sources: Statistics Estonia, Eesti Pank

Figure 21. Fiscal stance



Sources: Statistics Estonia, Eesti Pank

[13] The autumn forecast makes use of a new methodology, which takes account of income and expenditure related to international AAU sales. This change in methodology, proposed by Statistics Estonia, will improve the 2010 fiscal balance by 0.8 pp as a ratio to GDP, but will have an adverse effect on the balances of 2011 and 2012, by 0.2 pp and 0.6 pp, respectively.

good times, the general government's debt also started to increase in 2009. This was caused by the desire to maintain larger liquidity reserves in an environment of economic uncertainty. According to the reserve management strategy, the debt burden will continue to grow through the entire forecast horizon. Irrespective of the rapid expansion of Estonia's debt burden, it is still small in international comparison: general-government debt accounted for about 7% of GDP in mid-2010, with the general government continuing to be a (net) lender.

THE EFFECT OF THE DEBT BURDEN ON MEDIUM-TERM ECONOMIC GROWTH

Prior to the global economic and financial crisis, the Estonian economy was characterised by rapid loan growth, which significantly increased the debt burden of enterprises and households. This is proved by the fact that the corporate debt burden (loans from banks and other enterprises) in Estonia exceeded the euro-area average, while the household debt burden practically reached the average level for euro area countries[14].

Previous research has shown that a high level of and/or quick growth in the debt burden adds to the depth and length of a recession[15]. Similarly, corporate-level research has demonstrated that a high level of debt hampers turnover and investment growth, as well as the recruitment of new employees. Enterprises with a high debt burden are forced to respond to the economic decline more quickly – e.g., when sales drop, companies with a high debt burden will cut investments and labour force faster than those with a low debt burden[16].

At the same time, the effect of the pre-recession debt growth and debt level on economic growth after the end of the recession remains unclear. Economic theory highlights two processes through which a high debt burden may negatively affect economic growth: (1) debt overhang, and (2) debt deflation.

On the corporate level, the term "debt overhang" is used to refer to situations where corporate debt is so large that profit on new investment will be used for servicing the existing liabilities. Consequently, investors are not interested in financing new, profitable investments. In the economy as a whole, investment cuts lead to a deceleration in economic growth.

Debt deflation can be described as a spiral, where a drop in prices (deflation) raises the actual loan burden of both households and enterprises. In order to reduce the high debt burden, enterprises and households need to invest and consume less, and to sell their assets. Smaller investment and consumption, and the sale of assets will encourage prices to decline further; which, in turn, will increase the real debt burden. The higher the debt burden, the greater the risk of debt inflation and its negative effect on economic growth.

In order to better understand the potential impact of the debt level and quick growth in the debt

[14] According to Eurostat, the loan burden of enterprises amounted to 110 per cent (82% in the euro area) and the loan burden of households to 48 per cent (61% in the euro area) of GDP in Estonia in 2007.

[15] See, e.g., King (1994), Claessens, Kose & Terrones (2008) and Uusküla, Luikmel & Kask (2005).

[16] See, e.g., Sharp (1994).

burden on Estonia's economic growth in the medium-run, Eesti Pank conducted in 2010 a study on the relationship between the pre-recession debt burden and debt growth, and the economic growth in the period following the recession. Data on 31 OECD[17] and 20 developing[18] countries from the 1st quarter of 1960 to the 4th quarter of 2007 were analysed. The study identified the recession episodes of the countries, and observed debt growth and debt level in the period of four years before the recession, as well as for 2–20 quarters after the recession. Loans granted by domestic financial institutions to non-financial companies and households were used as indebtedness indicators.

Figure A. Debt level (% of GDP) before the decline stage and average GDP growth (%) after the end of the decline stage.

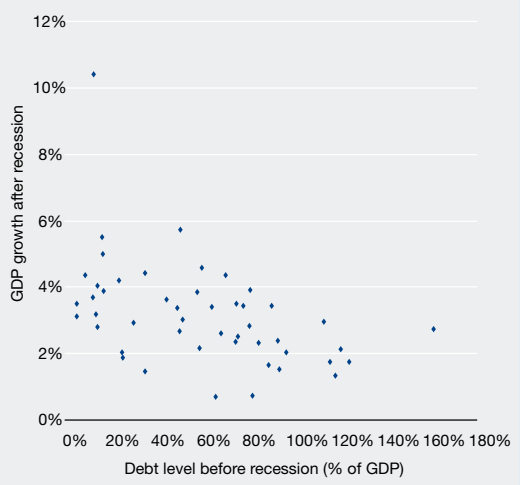
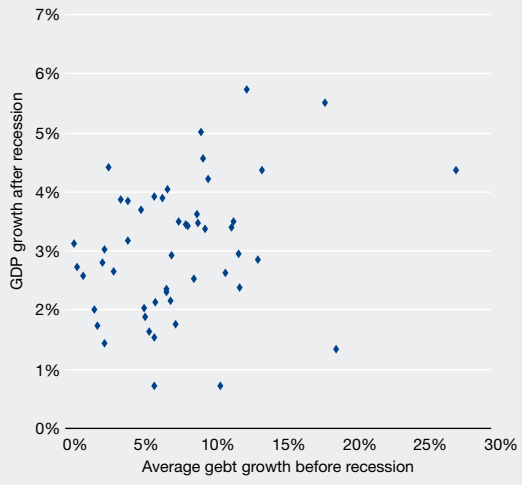


Figure B. Average debt growth (%) before the beginning of the decline stage and average GDP growth (%) after the end of the decline stage



Pre-recession debt level and debt growth have a minor effect on economic growth after a recession. Figure A shows that the higher the pre-crisis debt level (horizontal axis), the smaller economic growth after the crisis (vertical axis). Regression analysis, which controls for the growth potential of countries, reveals that a 50-point higher debt burden in relation to GDP causes a 0.3 pp smaller average economic growth.

Figure B shows pre-crisis debt growth on the horizontal axis and post-crisis economic growth on the vertical axis. Contrary to expectations, there is a (weak) positive correlation between debt growth and economic growth. The bigger the previous debt growth, the greater economic growth after the crisis. When controlling for the growth potential of the countries, the positive correlation decreases, but fails to disappear completely.

The results suggest that economic growth is mostly defined by other factors besides debt burden

[17] Australia, Austria, Belgium, Estonia, Spain, Netherlands, Ireland, Iceland, Italy, Japan, Canada, Korea, Greece, Luxembourg, Mexico, Norway, Poland, Portugal, France, Sweden, Germany, Slovakia, Finland, Denmark, Czech Republic, Hungary, New Zealand, Switzerland, Turkey, United Kingdom and United States of America.

[18] Argentina, Brazil, Egypt, Philippines, China, Israel, India, Indonesia, Jordan, Columbia, South African Republic, Malaysia, Morocco, Pakistan, Peru, Taiwan, Thailand, Chile, Russia, Venezuela.

and debt growth. Countries with stronger growth before a recession also show larger growth after the decline. At the same time, the negative effect of the debt level on private consumption is nearly twice as big as on economic growth. This is primarily because consumption needs to be curbed in order to reduce the debt burden.

Other countries' experiences thus suggest that the debt level and debt growth before the recession will not significantly affect Estonia's economic growth in the medium-term.

Bibliography

Claessens, S., Kose, M. A., Terrones, M. E., (2008). What Happens During Recessions, Crunches and Busts? IMF Working Paper, No. 08/274, December.

King, M., (1994). Debt deflation: Theory and evidence. European Economic Review, No. 38, pp. 419–445.

Sharpe, S. A., (1994). Financial Market Imperfections, Firm Leverage, and the Cyclicality of Employment. The American Economic Review, Year 84, No. 4, September, pp. 1060-1074.

Uusküla, L., Luikmel, P., Kask, J., (2005). Critical Levels of Debt? Working Papers of Eesti Pank, No. 3.

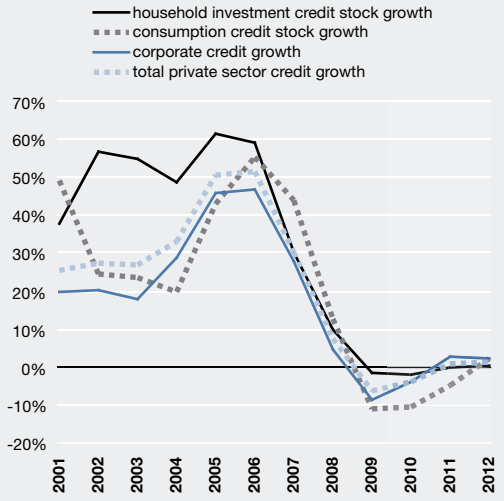
Banking sector and financing of the economy

Credit supply

The international financial environment is recovering from the crisis, but vulnerabilities of the European banking sector are still in place. Financial markets in Europe suffered an additional setback delivered by the spring-summer debt crisis in Greece, which gave rise to new fears concerning the size and nature of the European banking sector's risk positions. The fears alleviated somewhat, when the results of the banking sector's stress tests conducted by the Committee of European Banking Supervisors (CEBS) were disclosed. In addition to the loss of confidence and the real sector's high credit risk, the outlooks for the European banking sector are affected by ongoing tightening of supervision, extensive write-offs of loan losses from banks' balance sheets in both 2010 and 2011, and also the possibility of a crowding out effect from government bonds on private-sector bonds. As a result, banks' liquidity and financing situation remains tense, favouring a cautious approach and the continuation of deleveraging, although the lenient monetary policy pursued by central banks facilitates liquidity.

Compared to Central and Southern Europe, the banking sector's situation is somewhat better in Nordic countries, and this has helped the region avoid international tensions. Our banking groups are well capitalized, as is confirmed by the CEBS' stress test results. In addition, foreign investors' and institutions' assessments of risks in Estonia have been improving since the second quarter of 2010. This is related not only to the forthcoming euro adoption but also to smaller-than-anticipated loan losses and to the recovery of economic activity. Thus, banking groups in Estonia have no country-specific restrictions on financing credit demand, whereas parent banks with a weaker capital position may find it more difficult to take additional credit risks, considering the international context.

Figure 22. Credit stock growth



Source: Eesti Pank

As the spring forecast expected, local banks have remained conservative and are not too inclined to resume active lending activity (see Figure 22). In order for the latter to pick up, the Estonian economic environment (cash flows, of exports and companies) and related risk assessments would need to improve further and collateral-related risks should also somewhat diminish. The level of risk premia on real-sector loans has remained close to the start of 2009. In light of the current weak credit demand, banks in Estonia have no incentive to step up competition between themselves. Credit availability and credit standards may improve along with the general economic recovery. Forthcoming amendments to legislation (e.g., the planned Debt Restructuring Act) may also put brakes on reducing risk premia.

Credit demand

Credit demand developments are in line with the spring forecast. Although the turnover of new loans has somewhat increased in the third quarter, mostly as a result of large syndicated loans of one-off nature, credit-market activity continues to be subdued. The speed of a pickup in credit demand depends most on the recovery of economic activity and improvement in the expectations of companies and households.

There are already clear signs that the confidence of companies has strengthened. Banks have also observed growing interest among businessmen in developing and building real estate, which may in the coming years resume its important position in banks' credit turnover. At the same time, companies are able to finance part of their investment using their own resources. The volume of companies' financial assets has expanded over the past half a year along with economic recovery and growing profits. In addition, some sectors, especially domestic-demand oriented ones, may still have internal resources in the form of underutilised production capacity. Thus, it can be concluded that the restoration of businesses' credit demand will not be rapid, but remains gradual in the forecast period. Though the credit turnover of companies may increase somewhat at end-2010, the debt-to-GDP ratio will continue to decrease due to technical factors this year as well.

As for the credit demand of businesses, direct borrowing from abroad has become an alternative to domestic financing. The most recent balance of payments statistics shows that companies have again started to borrow directly from abroad or through financing schemes of their parent companies. If the risk premium on real-sector credit continues to decrease faster in Nordic countries than in Estonia, it is likely that the share of external financing, which fell sharply during the credit boom, will resume growth in the next years. The near-term ratio of external financing to domestic borrowing will depend on the relative (interest) advantages accompanying borrowing from via parent companies vis-à-vis borrowing from Estonia.

Improving confidence will start to increase also households' credit demand. The latter is, however, held back by the difficult labour-market situation and slow income growth. Thus, even if confidence improves, credit volumes will not expand very fast, since people have become more cautious due to the crisis and they save more than in the rapid growth period. On the other hand, the recent years' uncertainty has probably postponed many consumption and investment decisions. Now that confidence is on the mend, it is possible the decisions will be materialised. Similarly to enterprises, households' borrowing activity is also expected to increase somewhat in the second half of 2010. Nevertheless, the next years' credit turnover will be markedly below the levels posted in the years of rapid expansion.

RISKS TO THE BASELINE SCENARIO

Although the global economy is back on the growth path, the aftermaths of the financial and fiscal crisis are still felt. As a result, the external environment is vulnerable to new setbacks, which may give rise to several risks. Estonia's economic outlook has improved relative to the same period a year ago, but some uncertainties persist.

External-environment risks continue to be related to slower-than-expected economic growth in the years to come, which is likely to translate into smaller external demand for Estonia. This risk originates from problems with keeping the budget in check in many countries. At the same time, it cannot be ruled out that external demand may temporarily soar higher than assumed in the near term, especially in the next months. Commodity prices, which have been rather volatile since spring, may also increase more quickly than forecast. This would raise external-environment inflation and thus also impact prices and economic activity in Estonia.

If external growth decelerates faster than anticipated, Estonia may face the need to cut spending to adhere to the objective of reaching fiscal balance in 2013[19]. Our current estimate is that if export growth slows by 1 pp, the budget balance will deteriorate by about 0.2 pp of GDP compared to the baseline scenario. It would be more beneficial for Estonia to grow out of deficit as quickly as possible, especially since the fiscal crisis has forced markets to become markedly less tolerant to budget leniency.

There are also several risks proceeding from the Estonian economy that may cause the latter to unfold in a different way than forecast. In spring we expected that wages and prices would continue to decline throughout 2010, but recent data show the opposite has happened. Insufficient nominal adjustment is thus one of the risks to the forecast. Cuts in wages and prices so far have contributed to economic stabilisation, but it is not yet clear how strongly this will facilitate the inflow of investment and creation of new jobs, which are both vital for growth. Moreover, a considerable part of production capacity, which used to be geared towards servicing domestic demand, is still underutilised. The second quarter of 2010 saw the end of a long period of wage reductions. In the total economy, however, the slight increases in remuneration did not reach the level of productivity growth. Looking at the very high unemployment rate, is should be asked how justified was the 10% and even higher wage growth in some sectors and whether this may not be a sign of structural unemployment. The more the latter grows, the weaker is economic growth potential, since it is increasingly more difficult to find new employees, which, in turn, exerts upward wage pressures. Wage growth will not damage companies' competitiveness in the near term, but may do so in a more distant future.

[19] Updated Convergence Programme 2010, p. 37.

Estonia's current account surplus will turn into a small deficit over the forecast horizon. The country's domestic demand will be able to boost growth if the crisis experience is quickly forgotten and the rate of saving decreases more than expected. The price to be paid for rapid growth in this situation is deterioration in the external balance, and current account deficit may turn out to be wider than stated in the baseline scenario. Earlier forecast scenarios – a more extensive decline in the debt burden and larger inflow of foreign investment – also continue to be topical in the current economic context.