

Eesti Pank



EUROSÜSTEEM

# LABOUR MARKET REVIEW

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*The Labour Market Review by Eesti Pank experts examines recent developments in the Estonian labour supply, labour demand and prices. The central bank monitors labour market developments for two reasons. First, labour is an important production input and so any change in the labour supply or activity has a direct impact on potential economic growth, and second, the labour market can have a significant impact on inflation. Given the euro area monetary policy, which aims to achieve price stability, and the openness of the Estonian economy, the economy is only able to adjust to changes through input prices and volumes. Therefore, it is important for the labour market to be flexible and wage growth to be in line with productivity growth to avoid excessive inflation resulting from increased production costs.*

## **MAIN EVENTS IN THE FIRST HALF OF 2012**

This review focuses on labour market developments in the second half of 2012, during which the Estonian economic recovery slowed gradually. The Estonian labour market indicators remained relatively good, despite problems in the global economy and the uncertainties they caused. New jobs were created, unemployment shrank and labour force activity increased.

The continuous fall in the size of the working age population had a negative impact on the labour supply, while the rising labour participation rate had a positive impact. This positive impact was bigger, largely due to changes in the age structure of the working age population and an increase in the participation of people aged over 50 in the labour market.

The latest labour demand indicators point to relatively weak economic activity in 2012 owing to high levels of uncertainty. Looking further ahead, it is expected that the economy will gain new momentum but only gradually. The growth estimates for the euro area take in downward revisions in growth projections and downside risks to the outlook.

When growth slowed, the trajectory of balanced growth was once again jeopardised by wage costs growing more strongly than labour productivity. Growth in labour costs exceeded nominal economic growth considerably in the first half of 2012 and profits fell as a share of GDP. For sustainable and balanced economic growth to be achieved it is necessary for unit labour cost growth to subside.

In small open economies like that of Estonia the connection between the unemployment level and wage growth is not very strong. At the beginning of 2012, however, the Estonian unemployment rate was nearing the equilibrium unemployment level estimated in working papers from the central bank. Rates below that level signal that wage pressures will exceed productivity growth as a result of an insufficient supply of labour on the labour market.

Unemployment is shrinking but it is becoming more and more structural. In other words, the qualifications and location of the unemployed do not match the needs of the labour market, as is also shown by the high rates of long-term employment and the large share of long-term unemployed in the total. This means that active and effective labour market measures are still needed, in particular measures that address the labour market groups at risk. In its economic outlook report on Estonia, the OECD recommended that coordination between the National Social Insurance Board and the Unemployment Insurance Fund be enhanced, and benefits be better related to job search activity. This would help the discouraged to re-enter the labour market, which would then increase the supply of labour. At the

same time, entitlement to benefits should not inhibit people's motivation to search for a job and re-enter employment.

The main focus of attention in autumn 2012 is on public sector wage growth and a wage rise in education and health resulting from collective wage negotiations. Although a rise in prices for public services does not directly undermine Estonia's competitiveness in external markets, it does put pressure on the state budget. It is important that wage growth should not postpone the balanced budget target and the reallocation of funds should not harm the financing of other areas that are important for potential growth.

## LABOUR SUPPLY AND DEMAND

### Working age population

Preliminary data from the 2012 Population and Housing Census show that the Estonian population was 45,400 or 3.4% lower than the current estimate not adjusted for estimated net migration<sup>1</sup>. The size of the working age population aged 15 to 74 had fallen by 3.5% to 988,091. Given that the registration of births and deaths is very accurate, this is the best available estimate of net emigration in the last ten years. It is difficult to assess migration on a current basis because people often do not register it in the population register. Statistics Estonia nevertheless publishes current estimates of migration statistics and these show that net migration between the previous census in 2000 and the 2012 census was around 20,000 people, which is about half the level indicated by the preliminary 2012 census data.

**Table 1. Estonian working-age population**

Age group	Population 1/1/2012	Census 2012 preliminary data	Difference (people)	Difference (%)
15–19	69 584	67 652	-1 932	-2,8%
20–24	102 149	94 312	-7 837	-7,7%
25–29	104 125	92 829	-11 296	-10,8%
30–34	95 229	88 563	-6 666	-7,0%
35–39	91 688	89 718	-1 970	-2,1%
40–44	90 088	88 189	-1 899	-2,1%
45–49	88 039	85 850	-2 189	-2,5%
50–54	93 804	91 506	-2 298	-2,4%
55–59	87 421	86 425	-996	-1,1%
60–64	79 541	79 781	240	0,3%
65–69	57 251	57 795	544	1,0%
70–74	65 348	65 471	123	0,2%
<b>Total</b>	<b>1 024 267</b>	<b>988 091</b>	<b>-36 176</b>	<b>-3,5%</b>

The total drop in Estonia's population was smaller than feared. However, the population in smaller counties shrank by as much as 10% because of internal migration, while the population of the biggest county, Harju County, was bigger than current estimates. Large differences were also recorded by age group and gender. The female and male working age populations were 4.3% and 2.7% smaller respectively than the current population estimate not adjusted for migration. The biggest difference

<sup>1</sup> Net migration is the difference between immigration and emigration in a given period of time.

occurred among people aged 25 to 29, who were 10.8% less numerous. The population aged 20 to 34 had decreased by 8.5% (see Table 1).

The Estonian Labour Force Survey (LFS) results are generalised to the target population of working age Estonian residents by using the current population figure not adjusted for migration. When Statistics Estonia decides to adjust the target population after the final census results become available, it will probably affect a majority of the labour market indicators. Table 1 also shows the approximate impact of changes in the population age structure on the figures for the first half of 2012. The calculations apply the rates for labour market participation, unemployment and employment to the preliminary 2012 census data by gender and five-year age groups. As shown in Table 2, the ratios are approximately the same.

**Table 2. Estimated impact of 2012 census on the labour market indicators in the first half of 2012 (Eesti Pank's calculations)**

	Labour market indicators: LFS and current population estimate	Labour market indicators: LFS and Census 2012 preliminary data	Difference (people)	Difference (%)
<b>Employment rate</b>	60,50%	60,20%	-0,30%	
<b>Unemployment rate</b>	10,80%	10,80%	0,00%	
<b>Unemployment rate (15–24)</b>	23,50%	23,70%	0,20%	
<b>Labour participation rate</b>	67,80%	67,50%	-0,30%	
<b>Number of employed</b>	619 300	595 096	-24 204	-3,90%
<b>Number of unemployed</b>	75 300	71 796	-3 504	-4,70%
<b>Number of participants in workforce</b>	694 550	666 892	-27 658	-4,00%

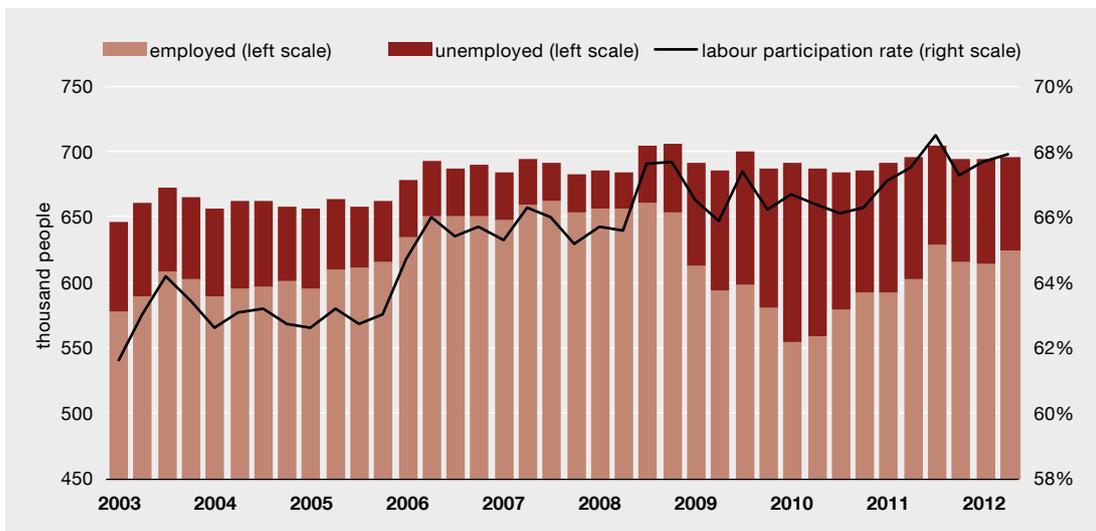
If the LFS estimates are also adjusted for the final census results retrospectively starting from the previous census, productivity growth in the last ten years will probably be stronger than has so far been estimated. Employment growth, on the other hand, is likely to be adjusted downwards, which will bring it in line more with the Tax and Customs Board statistics.

The rest of this review draws on LFS statistics unadjusted for the preliminary Census 2012 results.

### **Labour force participation and economic inactivity**

The Estonian working age population of people aged 15 to 74 has been shrinking gradually in recent years, but the resulting impact on the labour force has been offset by the rising labour participation rate. This rate shows the part of the population that is employed or unemployed, and it is expressed as a percentage of the total working age population. The Estonian working age population has declined by 24,800 people in the last six years, while the labour supply has grown by 9,000 owing to the rising labour participation rate. Women's contribution to the rise has been much bigger than that of men, and for this reason the representation of women in the labour force has been consistently increasing, from 48.6% in 2000 to 50.4% in the first half of 2012, while their share in the total working age population has remained around 53%.

The labour participation rate rose to 67.8% in the first half of 2012. Although the number of working age people continued to drop, by 5,500 year-on-year, the active labour force grew by 2,000 (see Figure 1).



**Figure 1. Number of the employed, the unemployed and the labour participation rate**

Labour force participation is affected by the participation rates of different population groups and their shares in the total population. The Estonian labour participation rate is affected a great deal by changes in the population's age structure (see Labour Market Review I/2012). The general average rate is also affected by labour participation decisions within gender and age groups, which have changed a lot in recent years.

The labour force participation rate for men has been relatively high since 2000 (see Table 3). After Estonia's accession to the European Union, when the economy and employment grew rapidly, men's activity in the labour market increased by 2–3 percentage points on average and remained relatively stable despite cyclical economic fluctuations. The total rate has been stable or slightly up in recent years, but trends by age groups have been different. The first half of 2012 saw a slight increase in the labour participation rate of men aged 50 to 74, but while the activity of young men aged 15 to 24 grew somewhat during the boom, it has dropped since the recession started. Part of the drop is because young men are spending slightly longer time studying. The labour participation rate of men aged 25 to 49 increased during the period of robust employment growth in 2006–2009, when many jobs were created in sectors where the share of male employees is much higher than that of females, such

**Table 3. Labour participation rate (%)**

	Age group	2000–2005	2006–2009	2010–2011	Q1–Q2 2012
<b>Men and women</b>	15–74	62,9	66,1	67	67,8
<b>Men</b>	15–74	68,8	71,2	71,1	71,6
	15–24	42,2	42,9	42	42,1
	25–49	90,7	93,7	93	92,6
	50–74	54,3	57,1	56,7	57,6
<b>Women</b>	15–74	57,8	61,6	63,3	64,4
	15–24	30,7	33,7	35,4	39,8
	25–49	82,4	83,6	84,1	82,2
	50–74	42,7	50,3	52,3	54,7

as construction. The activity of this male age group did not change much during the recession and the recovery, and its members continued to participate in the labour force despite numerous job losses in the crisis-stricken sectors.

The recent rise in the total labour force participation rate has been mostly due to higher participation rates of women. The activity rate for people aged over 50 has been rising since 2000, especially among women, who have seen a rise of around 17 percentage points. The main reason is the gradual increase in the retirement age until 2016, when the retirement age for women will equal that for men at 63 years. Aside from higher retirement age, the growing labour participation rate for people aged 50 to 74 can be attributed to better health and the growing wish or need to save for a pension or earn additional income. The high participation rate may also be related to a rise in the average age of the working age population. There is a growing tendency for employers to keep team members who reach their retirement age, as they are on average more flexible in terms of their wage rate and agree to work part-time. The participation rate of the elderly is expected to grow even further in the future, owing to the government's decision from 2009 to raise the retirement age for men and women gradually to 65 years between 2017 and 2026.

Like the participation rate for over 50 year-olds, the rate for women aged 15 to 24 is also rising. This is mainly happening because in the age group of 15 to 24, there are fewer women aged 15 to 19, whose labour participation rate is very low.

As with men, the labour participation rate for women aged 25 to 49 is higher than that for other groups, although for women this rate is around 10 percentage points lower than it is for men. This is primarily due to the division of roles in the family, because traditionally it is women who take care of small children or sick family members.

Labour force participation rates differ significantly between Harju County and the rest of Estonia, and were 74.5% and 64.3% respectively in the first half of 2012 (see Figure 2). The difference has been around 10 percentage points for the last decade. The main reason is probably the internal work-related migration of the economically active from other counties to Harjumaa. This labour flow also explains the differences in the age structure of the working age population: on 1 January 2012, people aged 15 to 29 made up 23% of the working age population in Harju County and 29% in the rest of Estonia,

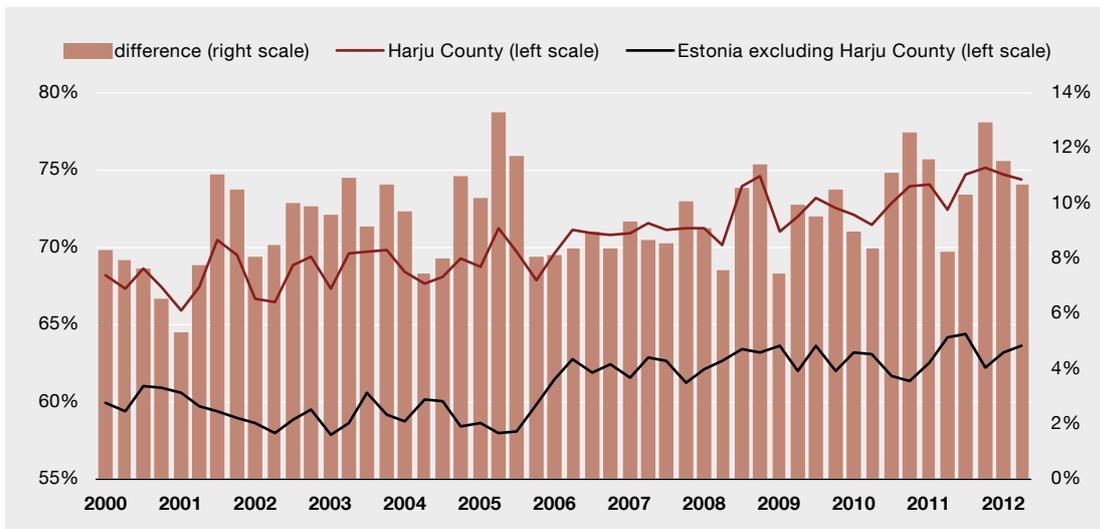
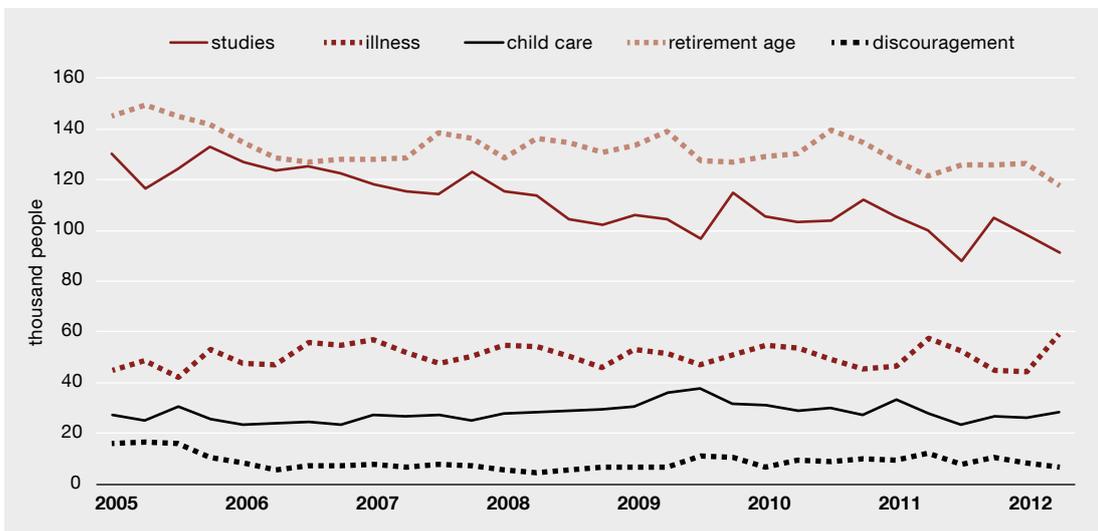


Figure 2. Labour force participation rate in Harju County and the rest of Estonia

while the same ratios for people aged 30 to 44 were 30% and 25%. Given that internal migration is usually driven by better prospects on the labour market, then those who are inactive due to health or other reasons usually do not migrate.

The number of the economically inactive shrank by 7,000 in the first half of 2012, year-on-year. This was partly caused by the decline in the working age population and partly by the rise in activity. The change mainly resulted from a fall in the number of people inactive due to studies, but also from the lower numbers of those inactive because of maternity leave, retirement or discouragement (see Figure 3). The number of people inactive due to studies shrank by 13,700 over the year, while the number of people aged 15 to 24, who probably account for the majority of students, fell by 8,300. The upcoming higher education reform may boost the number of people inactive due to studies slightly, because free education will be more strictly linked to academic progress, which will make it harder for students to remain in employment during their studies.



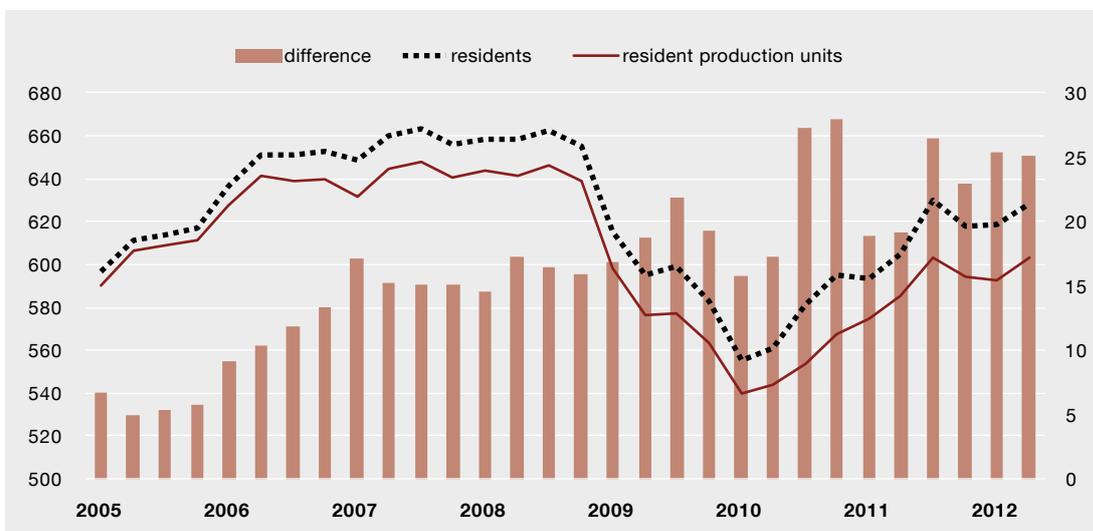
**Figure 3. Reasons for inactivity in the working age population**

### Employment

Around 107,300 Estonian inhabitants lost their jobs in the global financial crisis and the recession that lasted from the second half of 2008 to the beginning of 2010. Employment, however, recovered very rapidly after the recession and about 60,000 jobs were created or restored between the first quarter of 2010 and the second quarter of 2012. In total 73,300 Estonian residents have found a job since the first quarter of 2010. Total employment was nevertheless 5.1% or 34,000 people lower in the second quarter of 2012 than it was before the crisis.

Total employment includes domestic employment and pendulum migrants – Estonian residents who work abroad. The number of people employed abroad has increased since the second half of 2010 to 25,000 in the first half of 2012 (see Figure 4).

Although employment contracted sharply during the recession, the adjustment of working hours and wages helped avoid an even greater setback. At the start of the recession, employment did not suffer

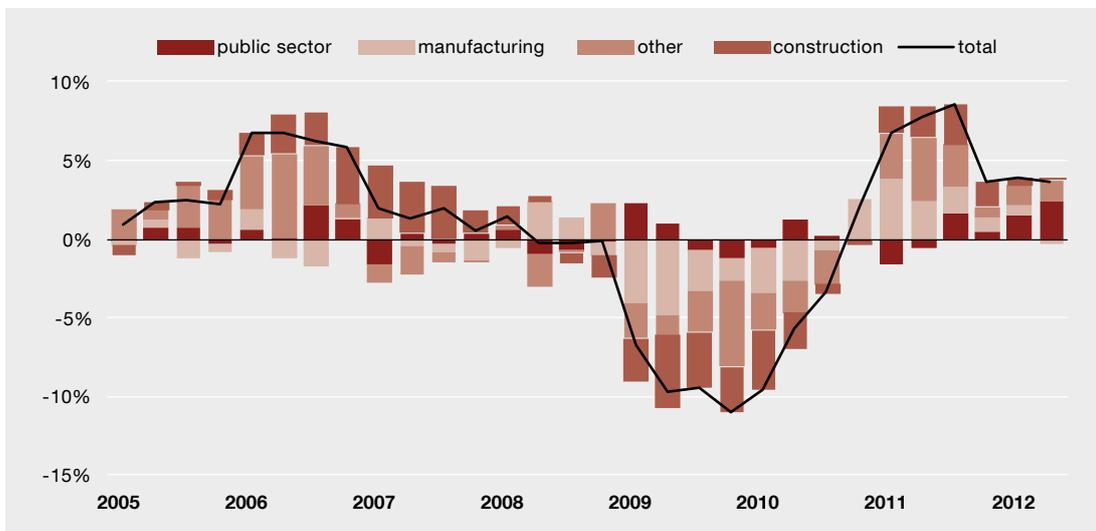


**Figure 4. Employment by residents and resident production units**

that much due to the reductions in the number of working hours and presumably also the strategy of retaining employees. The scope and length of the recession, however, ultimately entailed a drop in employment and a leap in unemployment. Employment and the number of hours worked picked up rapidly in the recovery, but they rose at a considerably slower pace than economic growth. The fall in nominal wages, which had helped curb labour costs and helped employers retain employees, increased wage pressures when growth recovered, because wage cuts were often considered a temporary crisis measure. Should strong wage pressures persist, this may considerably restrain further recovery in employment. For the government to support employment, it is vital that wage growth be in line with productivity growth.

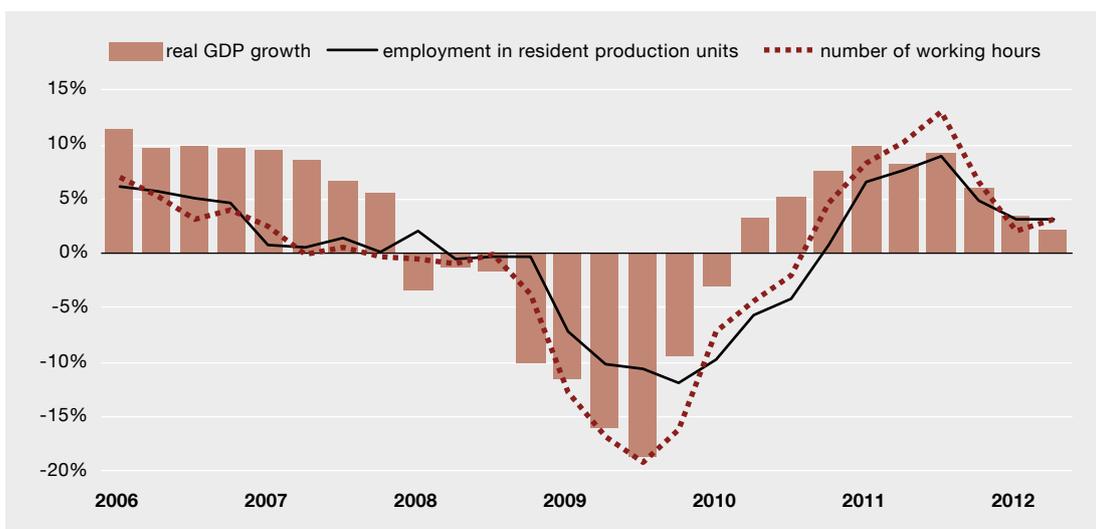
The creation of jobs decelerated in the fourth quarter of 2011 and will slow even further in the second half of 2012. This is partly due to a base effect and partly to the decrease in economic activity since the end of 2011. Year-on-year, total employment growth shrank from around 8% at the beginning of 2011 to below 4% in the fourth quarter of 2011. Average employment growth was 3.7% in the first half of 2012, with domestic employment growing at 3.1%. The barometers of the Estonian Institute of Economic Research showed that the seasonally adjusted employment expectation indices for the third quarter of 2012 were in line with zero growth or a decline in employment in the coming months. The only exception is the services sector where modest growth is expected.

Economic growth moderated primarily because of a decrease in external demand, and thus employment contracted most in the manufacturing sector. Productivity growth in that sector almost halted in the first half of 2012 and it declined somewhat in recent months in annual terms. This process was not the same in all areas, so for instance the electronic equipment and metal products industry, which is not so labour-intensive, recorded a fall in production, while timber and food production have gone up. In total, the number employed in manufacturing in the second quarter of 2012 decreased by 1,800 or 1.6% from a year before (see Figure 5).



**Figure 5. Change in employment in different fields**

The total number of hours worked increased more than employment in 2011, especially in the first three quarters when the number of working hours per employee, which had been reduced in the recession period, was restored. In the fourth quarter of 2011 and the first half of 2012, the recovery of working hours per employee decelerated because of a slowdown in economic growth (see Figure 6). In Estonia the crisis-induced adjustment in employment and working hours was faster and deeper than the average in the EU. To some extent, this is because the recession was also deeper in Estonia due to the high share of exports and the pre-crisis economic overheating in Estonia, which is why production volumes shrank in labour-intensive sectors, such as construction and manufacturing. The pace and extent of the labour market adjustment in Estonia can also be associated with the relatively liberal legal framework for employment protection (see background information) and the relatively low percentage of employees who are covered by collective agreements. Nevertheless, the policy of retaining labour was widely followed in Estonia, as it was in many other euro area countries, and the relative reduction in employment was almost half that in GDP.



**Figure 6. Annual growth in employment and the number of working hours in resident production units**

The Estonian Labour Force Survey states that there were 569,800 salaried employees in Estonia in the second quarter of 2012. The Tax and Customs Board reported 505,600, which includes only those employees who actually received salaries in the period monitored and also declared them in Estonia. The difference between these two figures grew significantly after the recession and was around 67,000 in the first half of 2012 (see Figure 7).

Errors in the LFS may emerge from the overestimation of the number of people aged 15 to 74, because the results of this sample-based survey are extended to the current population estimate not adjusted for migration. The preliminary results of the 2012 Population and Housing Census show that the current population estimate exceeds the actual population by around 36,000 people (see Table 1). If the LFS's estimate of salaried employees is applied to the working age population given by the census, the total number of salaried employees, and thus also the difference from the Tax and Customs Board's figure, drops by around 20,000. For a more accurate estimate, the changes in the age structure of the working age population should be taken into account too.

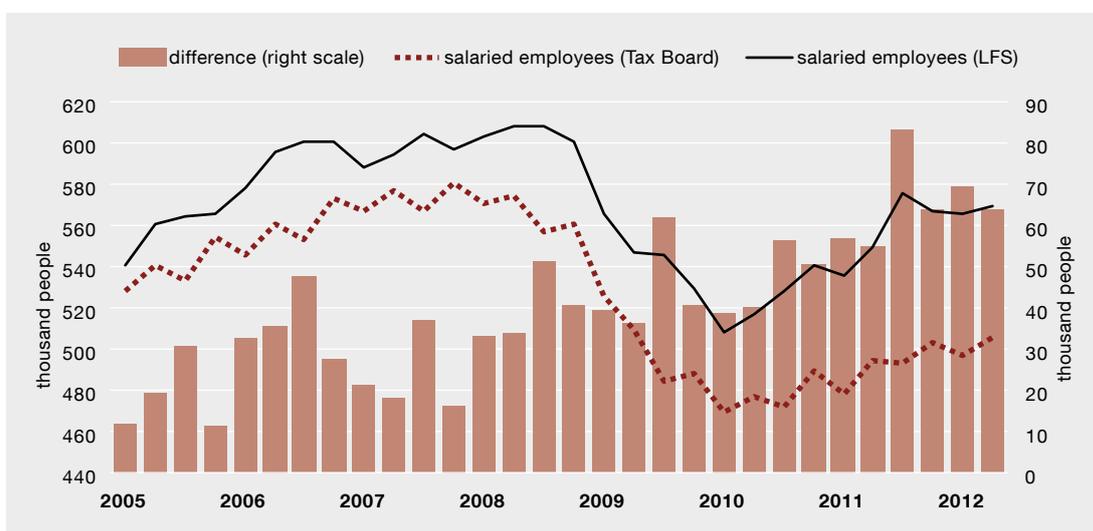
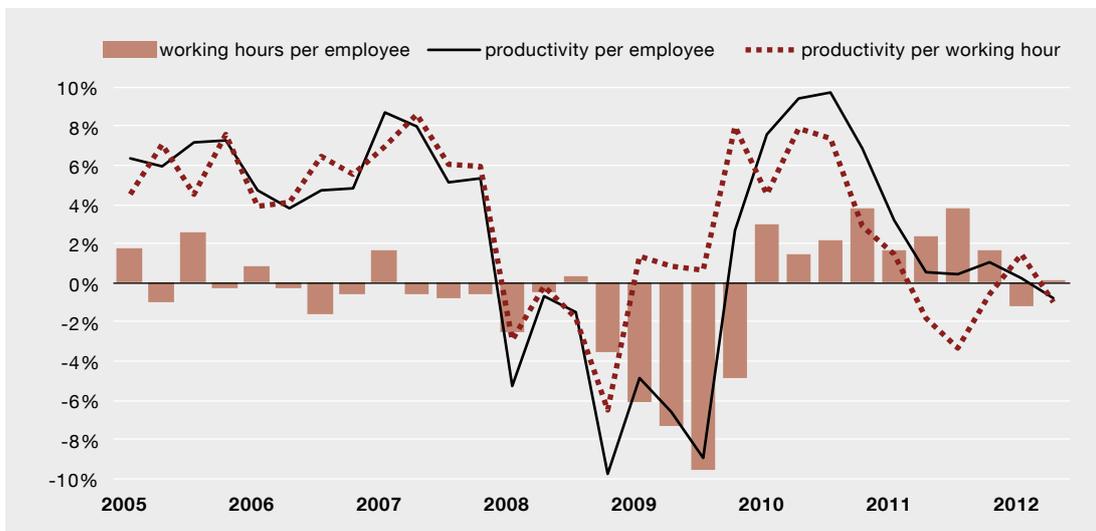


Figure 7. Salaried employees

### Labour productivity

Changes in employment differ considerably from changes in GDP in unstable periods, because employment responds to cyclical changes in output with a lag. Firstly this is because changes in employment contracts entail costs, and secondly because the personnel changes companies make depend on whether the fall in demand is expected to be temporary or long-term, which is difficult to assess in the initial phase of a recession. As a result, when GDP growth slows, labour productivity measured as output per employee declines too.

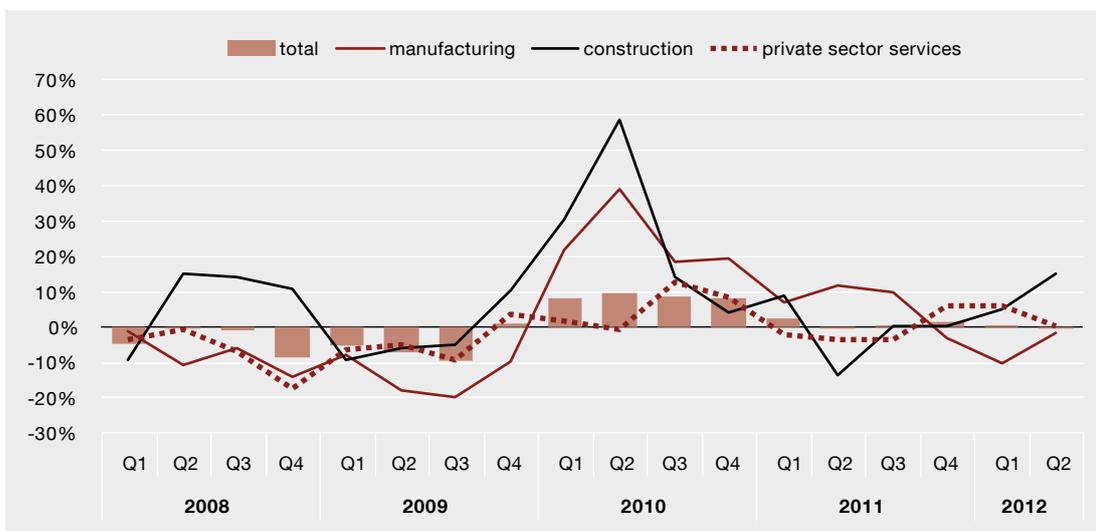
Annual labour productivity growth started to slow in the first half of 2011. In the first quarter of 2012, growth was close to zero, and the second quarter recorded a drop in labour productivity. Though economic activity remains sluggish, labour productivity should gain some momentum soon, because when economic growth stabilises, the growth figures for working hours and employment, which respond with a time lag, should catch up with GDP growth (see Figure 8).



**Figure 8. Annual labour productivity growth**

In the recession, hourly productivity dropped less than productivity per employee because one measure employers took was to optimise labour input by reducing the number of working hours per employee. In the recovery, the growing number of working hours per employee has had the opposite impact, inhibiting hourly productivity growth. In 2011 productivity growth per employee was positive, though very low, but real productivity per working hour dropped. In the first two quarters of 2012, growth in the number of working hours per employee slowed and both productivity indicators changed in similar ways.

In manufacturing, the real value added per employee has been decreasing since the fourth quarter of 2011, with the decrease reaching 12% in the first quarter of 2012 and easing to a fall of 1% in the second quarter (see Figure 9). Productivity shrank in other industries by around 10% in the first half of 2012, and in the second half it also fell in finance and insurance, where it was down 7.5%. Construction, on the other hand, recorded growth of 15% in productivity in the second quarter. Growth was supported by increased construction volumes, partly due to projects that are financed from the sale of emission quotas.



**Figure 9. Annual labour productivity growth by industry**

Slow growth in productivity, or negative growth like in the second quarter of 2012, undermines the profitability of companies if wages are growing. A recovery in productivity will depend largely on external demand in the coming quarters. Companies probably expect the current low to be temporary, as is evident from the business confidence indicator's sub-index of orders, and they are not rushing to reduce the number of employees. The slowdown in the recovery of working hours per employee and the fall in employment in some areas, however, are signs of efforts to reduce labour costs.

## Unemployment

The first half of 2012 saw growth in employment and a further drop in unemployment. The unemployment rate was 11.5% in the first quarter, which is 0.1 percentage points higher than in the previous quarter due to seasonal factors, and 10.2% in the second quarter. Eurostat figures show that the annual drop in Estonia's unemployment was the biggest in the EU in the second quarter of 2012. Today, Estonia's unemployment rate is lower than the average in both the EU and the euro area.

As it was before the crisis, unemployment among women was a few percentage points lower at 8.8% than it was among men at 11.5%. The unemployment rate for men is much more seasonal than that for women because more men work in highly seasonal sectors such as construction. The unemployment rate for Estonians was 7.8%, while that for non-Estonians was about twice as high at 15.4%. This big difference arises from the persistently higher than average unemployment rate in Ida-Viru County in Eastern Estonia.

The unemployment rate in that county was 16.2% in the second quarter of 2012. A positive point is that in annual terms, unemployment in Ida-Viru County dropped the most, by 6.3 percentage points, while in Harju County and in Estonia on average the falls were 4 and 4.4 percentage points respectively. The unemployment rates remained more or less stable in Western and Southern Estonia.

Unemployment has decreased thanks to both short- and long-term unemployment. The number of long-term unemployed is declining at a slower pace however, because the inflow to unemployment is low and it becomes increasingly harder to exit it as the period of unemployment continues. The proportion of long-term unemployed in the total unemployment rate increased until the first quarter of

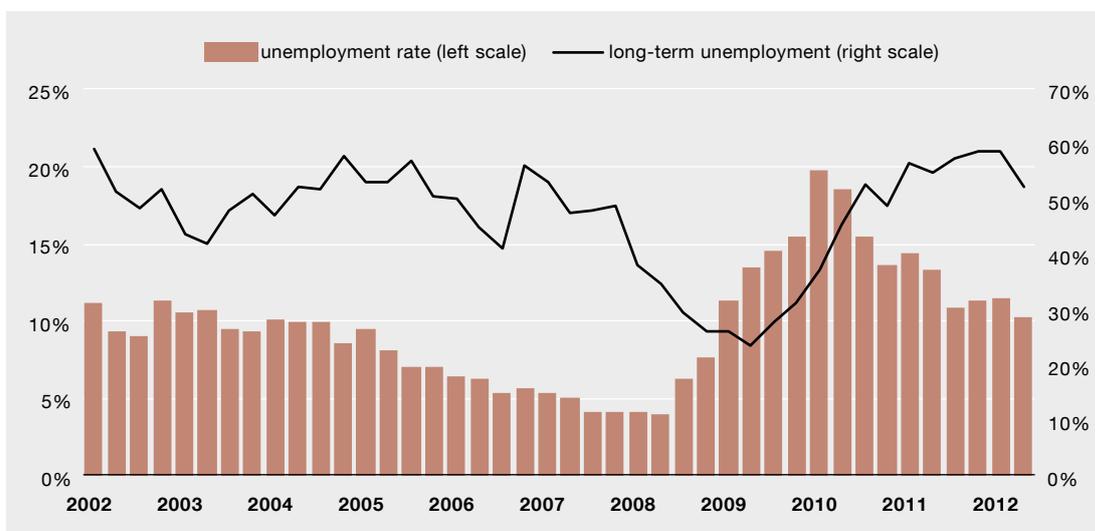
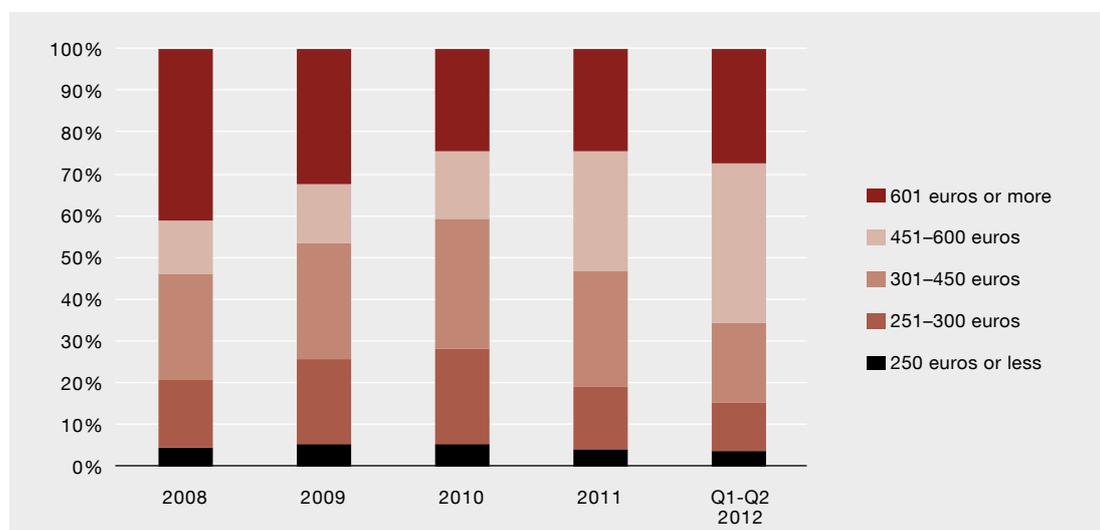


Figure 10. Unemployment rate and long-term unemployment

2012 to 58.7% but it then decreased by 6 percentage points in the second quarter (see Figure 10). The number of the discouraged recorded a historical low too, meaning that the long-term unemployed did not exit unemployment because they had given up hope of finding a job. Although long-term unemployment has contracted slightly, supporting the long-term unemployed in re-entering the labour market is still a major challenge for labour market policy. It is necessary that active labour market policy measures be efficient and well designed to fit the needs of that specific target group.

The unemployment rate for men aged 15 to 24 has been rising since the second half of 2011. It was 30.5% in the second quarter of 2012, having grown by 4.4 percentage points over the year. The unemployment rate for women of the same age increased as well, reaching 24.4% in the second quarter. The young unemployed, especially those who are long-term unemployed, are a high-risk group: a negative experience in early age has a hugely demoralising impact on people's self-confidence and it may prevent them from seeing a way forward through, for instance, continuing their studies, and they may fail to realise their potential. That is why individual counselling is an important part of labour market measures for young people.

The reservation wages<sup>2</sup> of the unemployed continued to rise in the first half of 2012. In 2011, 47% of the unemployed would have accepted a job for monthly gross wages of up to 450 euros, while in the first half of 2012 only 35% would have done so. The shares of the unemployed with wage expectations from 451 to 600 euros and from 600 euros and up increased by 9 and 3 percentage points respectively (see Figure 11). Higher reservation wages are in line with the improving economic situation; however, a mismatch between the market situation and wage expectations may considerably lessen the chance of finding a job.

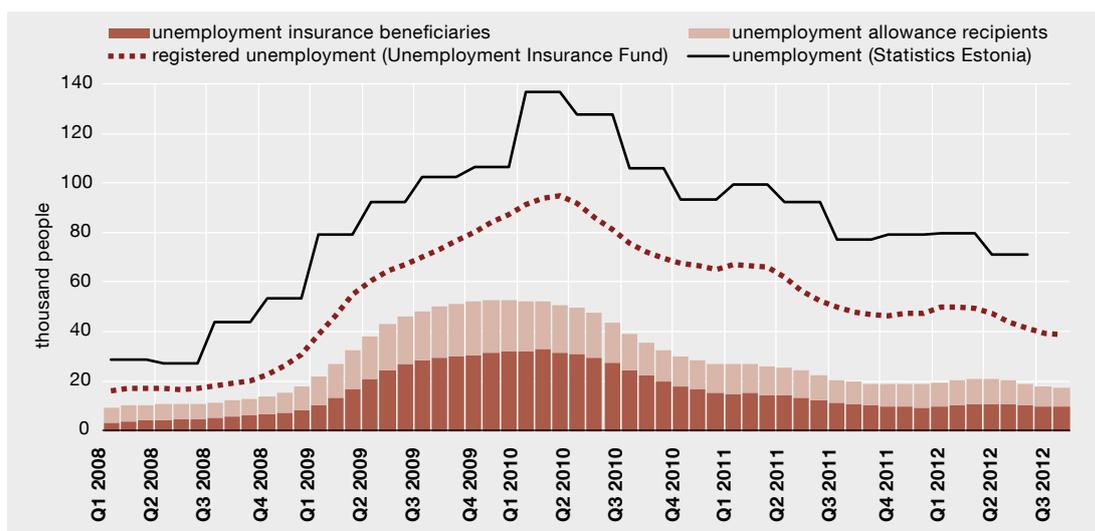


**Figure 11. Reservation wages of the unemployed**

There were 38,700 registered unemployed in Estonia at the end of August 2012. Their share in the total number of the unemployed shrank from 63% in 2011 to 61% in the second quarter of 2012 (see Figure 12). The drop in unemployment was broad based across the range of professions. The number of unemployed who had previously worked in engineering, mechanics or electronics dropped by around a third, the number previously in construction and energy was smaller by about 30%, and that in trade and agriculture by 25%. Among the registered unemployed, 17% had received only primary

<sup>2</sup> Lowest wage rate at which an unemployed person would be willing to work.

or basic education, 54% had received primary and secondary education, and 29% had also received secondary specialised or higher education, a share that has grown over the year. A total of 75% of the registered unemployed fell into one or more of the risk groups defined in the Labour Market Services and Benefits Act: people aged over 55, people aged 16 to 24, non-Estonian speakers, long-term unemployed, unemployed recently freed from prison, unemployed with a disability, and people unemployed due to taking care of someone else.



**Figure 12. Unemployment in Estonia**

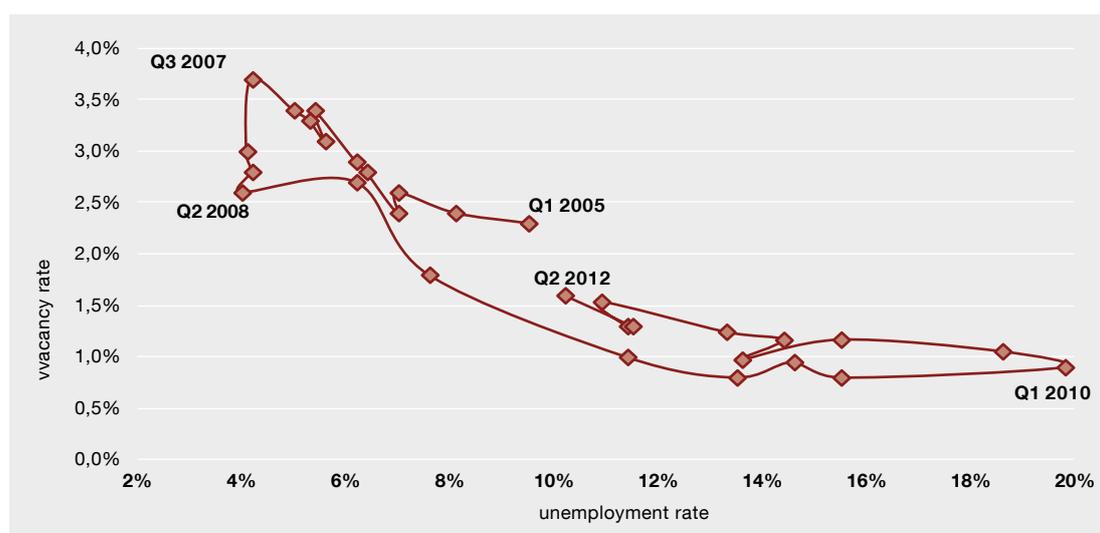
The number of recipients of unemployment insurance benefits or allowances totalled 43% of the registered unemployed, on average, or 27% of the total number of the unemployed calculated by the Labour Force Survey.

### Vacancies

Statistics Estonia has been using business surveys to collect internationally comparable high-quality statistics on vacancies since 2005. The job vacancy rate, or job vacancies as a share of the total of occupied posts and vacancies, rose from 0.8% at the bottom of the recession to 1.6% in the second quarter of 2012. There are currently around 8,000 vacancies, twice as many as at the bottom of the recession but less than half the number in 2008.

The vacancy rates differ greatly across different fields of employment. Public administration, in particular social security and national defence, stands out here with a rate of over 8% in 2008, more than triple the 2.5% rate found elsewhere. The number of vacancies in this sector fell from more than 3,000 to 850 during the recession and is currently still below 1,000. One reason for this is the freezing of wage fund for state budget consolidation, which did not permit to increase the number of positions. Another is that before the crisis, some public sector vacancies were probably unfilled for a long time and no real effort was made to fill them, and these positions were simply eliminated in the recession. The information and communication technology (ICT) sector stands out for its rapidly rising job vacancy rate, which reached 3.3% in the second quarter of 2012. This reflects strong growth in that sector and a shortage of ICT specialists in Estonia.

By comparing the job vacancy rate with the unemployment rate, we obtain the Beveridge curve, which illustrates the effectiveness of the labour market in matching available workers with vacancies. An outward shift of the curve after the recession signals a possible decline in that effectiveness. In other words, Estonia's structural unemployment may have increased by up to 2 percentage points since the recession (see Figure 13). Another reason for the curve to shift to the right is the much lower number of people who were discouraged and thus gave up seeking a job in recent years, even though the level of unemployment has been more or less the same. This means that the shift in the curve is partly explained by a structural change in the activity rate.



**Figure 13. Beveridge curve (Q1 2005–Q2 2012)**

### Wages and labour costs

The slowdown in economic growth at the end of 2011 slowed average gross monthly wage growth from 6.6% in the fourth quarter to 6.4% in the first and to 5% in the second quarter of 2012. The seasonally adjusted figure showed close to zero quarterly growth in the second quarter. Based on data from the LFS, wage growth did not slow because of changes in the structure of employment by field of activity. There might be an impact of the low-wage workforce that was employed for seasonal jobs, even though seasonal jobs are more common in the third quarter. Real wage growth was positive at the beginning of 2012 at 2.4% in the first quarter and 1% in the second quarter.

The positive growth differential between average monthly wages and hourly wages persisted, pointing to stronger growth in the bonus component than in basic wages. The recent statements by Statistics Estonia confirm the rapid quarterly growth of bonuses by 11.6%, 20.5% and 19% in annual terms which comprise 3–4% of average wages.

The slowdown in output growth in manufacturing since the second half of 2011 and the slight drop since March 2012 are not reflected in the sector's average gross wage growth yet, which was 8.8% and 8% in the first and second quarters respectively, exceeding average wage growth in the economy by around 3 percentage points. Average hourly wages rose by 8.3% in the first quarter, which indicates that the contribution of the bonus component not dependent on working time was positive.

The industry survey by the Estonian Institute of Economic Research shows an increase in recent quarters in the percentage of companies who consider a shortage of labour to be a factor that inhibits production. Indirectly, this is also an indicator of wage pressures, because a shortage of labour makes companies overbid workers from competitors through the payment of higher wages. Though this indicator has had only weak forecasting power for wage growth in manufacturing in the past, it suggests that there will be no major slowdown in wage growth in the near term.

In construction, annual wage growth picked up from 6.7% in the second half of 2011 to 12.6% in the first half of 2012. Average gross monthly wages reached 914 euros in the second quarter of 2012, close to the 918 euros at the peak of the boom, but the growth in prices since then meant that real wages in fact remained lower. Demand in construction in 2012 has been boosted by insulation projects supported by revenues from the sale of carbon emission quota and the gradually recovering real-estate market, while construction companies are still forced to compete for labour with the Nordic countries, where wage levels are significantly higher. Pendulum migration gained momentum when the Estonian construction sector contracted by around 25% during the recession.

Migration surveys outline several push and pull factors for cross-border employment. One of the pull factors is the emergence of national communities in target countries, which help reduce information and settlement costs for new migrant workers. For instance, Estonian communities in Finland can encourage other Estonians to go to work in Finland. Wage differences between the home and target countries are another important determinant, and wages in the Estonian construction sector in 2010 were around one third of those in Finland, as shown by an international wage survey, and the difference was even bigger among workers with lower levels of education.

Together with the recovery in construction, wages have also picked up in real estate, where wages grew by 7.4% in the first quarter and 10% in the second quarter of 2012. In finance and insurance, wage growth was slower than the average in the economy at 4% and 1.7% respectively. Table A presents a comparison of wage levels by fields of employment during the boom and the recession.

In the public sector, including public administration and social security, education and health, average gross monthly wages grew much more slowly in the past six months than they did in the private

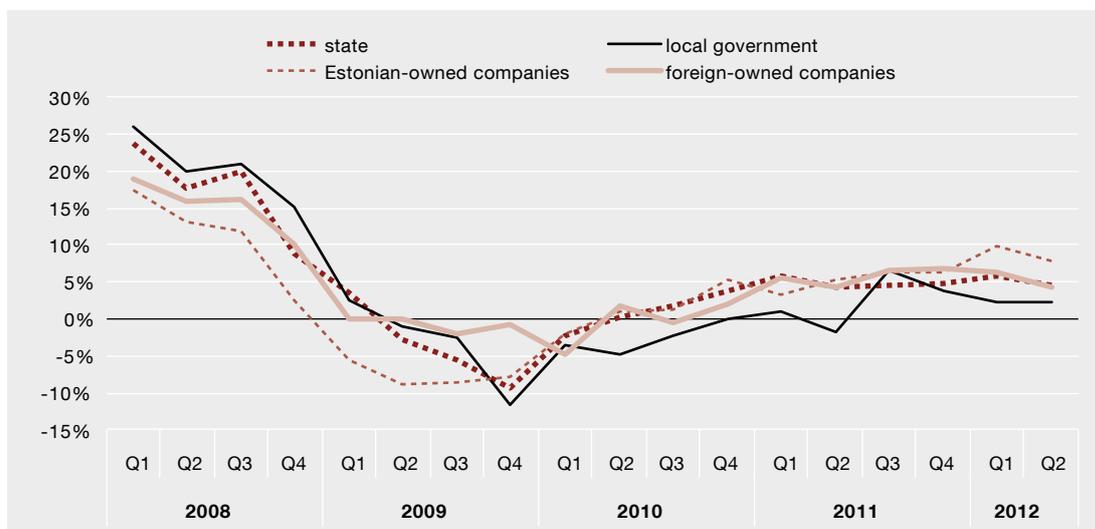


Figure 14. Average gross monthly wage growth by the owner of the place of employment

sector. In the first two sub-sectors, wages have not yet recovered to the levels recorded at the peak of the boom. The local government sector has seen the slowest wage growth, with wages starting to recover from the recession only in the second half of 2011 and increasing by only 2.3% in the first half of 2012 (see Figure 14). Central government institutions saw 5.8% and 4.4% wage growth in the first two quarters of 2012, which are lower rates than those seen in the private sector. However, wages also decreased considerably less in state agencies, and their current wage level is 9% higher than it was during the boom.

In the private sector, stronger wage growth was recorded in Estonian-owned companies, reaching 10% and 7% in the first and second quarters respectively. Average wages were 4.3% above their pre-crisis peak levels and 14.6% higher than they were at the bottom of the recession. Wages in foreign-owned companies shrank much less during the recession and they are currently 10.7% above their boom-time level, although they recorded growth rates of only 6.2% and 4.3% in the first and second quarters of 2012.

Geographically, average gross monthly wages grew by 6% in Harju County, the biggest county, and by 6.3% in Ida-Viru County in Eastern Estonia. Although it is difficult to establish regional trends, wage growth in the Southern Estonian counties was evidently below the average.

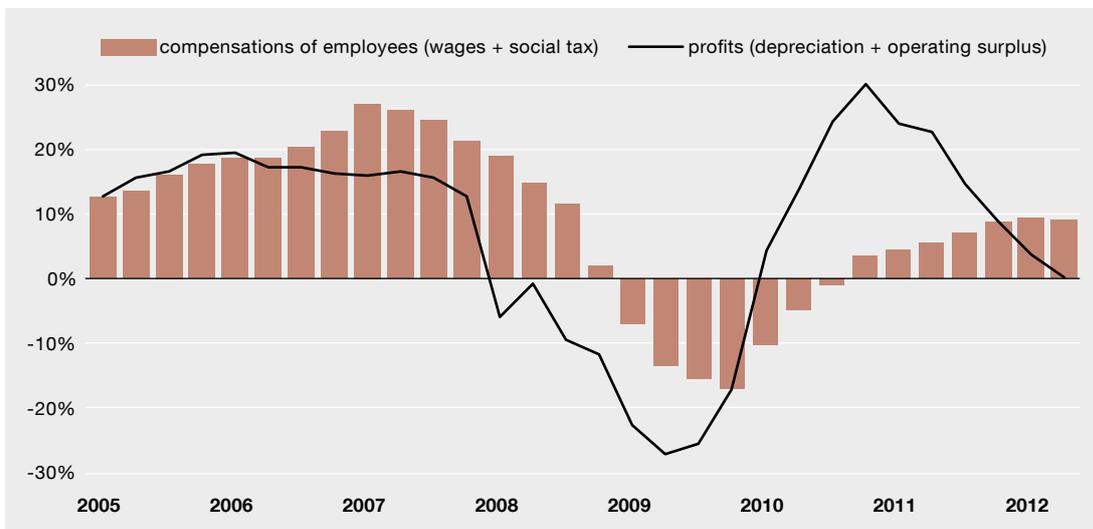
### Unit labour cost

Slowing economic growth coupled with growing employment resulted in an increase in real unit labour costs of 0.6% in the first quarter and 2.6% in the second quarter of 2012. Growth in nominal unit labour costs was considerably stronger at 4.2% and 6.6% respectively (see Figure 15). This halted the decline in the wage fund as a share of GDP.



**Figure 15. Annual unit labour cost growth**

While wage fund growth slowed only slightly in the first half of 2012, profit components practically stalled in the second quarter (see Figure 16). This means that unit labour costs increased in that period mainly at the expense of profit components.



**Figure 16. Annual growth in compensations of employees and profit components**

Real unit labour costs increased the most in manufacturing, rising by 9.5% and 11.3% in the first and second quarters respectively, and in the information and communications sector, where they rose by 7.3% and 13.3%. As mentioned above under labour productivity, these companies are probably expecting output growth to recover, which is why they are not rushing to reduce labour costs. The construction and real estate sectors, on the other hand, saw a decline in unit labour costs.

The unit labour costs of the total economy may be seen as the weighted average unit labour costs of all fields of activity. However, these weights are not constant in time and depend, in each period, on the value added contributions of the fields of activity to the total economy. In consequence it may happen that unit labour costs do not change within the fields of employment, while the unit labour costs of the total economy grow or fall as a result of structural changes in the economy. This was the case in the first half of 2012, when rapid unit labour cost growth in manufacturing was offset by the sector's declining share in the economy. Similarly, a drop in the construction sector's unit labour costs was multiplied by the rising share of that sector.

## **INSTITUTIONAL DEVELOPMENT**

### **Collective wage negotiations**

In Estonia, only 10.7% of salaried employees belonged to trade unions, as shown by the Work Life Survey in 2011, while in the 2009 survey 32.7% employees said that they have collective agreements in their companies. Despite these low ratios, collective wage relations play an important role in some fields of activity, such as education, health, transportation and storage, and energy. In these fields, sectoral or occupational agreements set out minimum wage rates, while firm-level collective agreements often lack wage agreements. At the beginning of 2012, collective wage agreements gained new momentum for the first time since the recession, and this culminated with a collective labour dispute and large-scale strikes in Estonian terms.

The teacher's strike in March 2012 demanded a 20% wage rise and ended with the Ministry of Education and Research promising to increase minimum wages in education by 7% starting from 2013.

The ministry consented to raise the minimum wage rate for educational specialists from 608 to 700 euros, and this was boosted to 715 euros during the planning of the state budget. The rise affects the minimum rate, meaning that the average wages of teachers will increase by less than that. An 8.5% rise from the average wage of 793 euros in 2010 to 860 euros is expected.

The strike and collective labour dispute of medical workers ended, after negotiations, with a preliminary agreement on 25 October 2012 to raise the minimum hourly rates for doctors, nurses and caregivers by 11%, 17.5% and 23% respectively starting from 1 March 2013. The negotiations concern around 20,000 doctors and nurses. As some medical workers receive wages above the minimum rates, the average wages will probably increase by less than the agreed growth rates.

In the private-sector, transport workers have a strong trade union, which negotiated a 12% wage rise for bus drivers at the beginning of 2012. Transport workers, too, have the alternative of migrating to work in Scandinavia, which strengthens their position in wage negotiations. Around 2,000 bus drivers in Estonia are members of trade unions. Another active body is the Association of Oil Shale Producers' Trade Unions. The energy and mining industries are highly concentrated, which means that without a trade union, the employee would be at a significant disadvantage in wage negotiations. Average wage statistics show growth of 22% in average wages in electricity, gas, steam and air conditioning supply since the second quarter of 2008, the peak of the boom, while the national average has risen by only 5%. As collective agreements concern only a few companies, the details of wage agreements are not disclosed.

### **Other changes to affect the labour market starting from 2013**

In 2013, the unemployment insurance premium will drop from 2.8% to 2% for employees and from 1.4% to 1% for employers. Although the ratio of taxes to GDP in Estonia is much lower than the EU average, it is more inclined towards labour taxes than the average is. The large labour tax gap was also highlighted in a recent review of the Estonian economy by the OECD, which recommended that the gap should be smaller.

In January 2013, the monthly unemployment benefit will rise from 65 euros to half of the minimum wage, which is 145 euros according to the current State Budget Proposal for 2013. Unemployment benefits are for those unemployed who do not qualify for unemployment insurance, and are paid for a maximum of 270 days. An increase in unemployment benefits will help mitigate the risk of poverty and will probably lower the number of unemployed who receive both unemployment benefits and subsistence benefits. This will certainly also give additional motivation to non-recipients of unemployment insurance benefits to stay active in their first nine months of unemployment. It is also important however, that benefits should not inhibit them from re-entering employment as quickly as possible.

## Employment Protection Legislation Index

Katri Urke, Tairi Rõõm

The Employment Protection Legislation index (EPL index) is an indicator elaborated by the OECD for assessing the stringency of legislation covering the dismissal of employees and the use of regular employment contracts. The general objective of the EPL index is to express the cost of obligations for the employer if the employer terminates the employment relationship. The values of the index range from zero to six. The stricter is the EPL, the more costly or complicated is to terminate the employment relationship and the higher is the value of the index.

The EPL index is calculated along 21 items and the aggregate index has three sub-indicators, which measure the different aspects of employment protection: termination of individual regular employment contracts, stringency of regulation of temporary employment contracts and additional costs related to collective dismissals compared to individual permanent contracts. See Appendix 2 for the values of the sub-indicators. The aggregate index is composed using standard weights: 5/12 for regular contracts, 5/12 for temporary contracts, and 2/12 for collective dismissals. The index is calculated on the basis of typical dismissal procedures and events, that is, contract terminations which do not take place by the fault of the employee, and the dismissal of such employees whose contracts bear no special limitations as regards their termination.

The most recent EPL indices published by the OECD for Estonia are for the year 2008. At the same time, the new Employment Contracts Act entered into force here in July 2009. One of its objectives was to make the labour market more flexible by reducing the costs borne by the employer upon terminating employment contracts. In order to see the impact of the new Act on the level of employment protection in international comparison, we calculated the EPL index values based on the current legislation and according to the OECD methodology. In order to have a wider horizon for comparison, we also calculated indices for Latvia and Lithuania, since the OECD does not publish indices on them.

The table below presents the EPL indices for the Baltic countries. If we compare Estonia's 2008 and 2012 indices, we see that the sub-indicator for regular contracts decreased as a result of the new Employment Contracts Act. At the same time, the regulation of regular contracts became more stringent than before, and this is reflected in an increase in the respective sub-indicator. Since the majority of employment relationships in Estonia are in the form of regular contracts, comparisons of Estonia's institutional framework for employment contracts to that of other countries should base on the EPL sub-indicator for regular employment contracts and not use the general EPL index. Temporary contracts of employment made up just 2.4% in 2008 and 4.5% in 2011.<sup>3</sup>

### The EPL Index in Baltic Countries

	Estonia 2012	Latvia 2012	Lithuania 2012	Estonia 2008 <sup>4</sup>
EPL aggregate index	2.46	2.33	2.37	2.39
Regular contract	1.94	2.23	2.58	2.27
Temporary contract	2.67	1.96	1.96	2.17
Collective dismissal of contracts	3.25	3.50	2.88	3.25

3 [http://www.sm.ee/fileadmin/meedia/Dokumendid/V2ljaanded/Toimetised/2012/series\\_20122eng.pdf](http://www.sm.ee/fileadmin/meedia/Dokumendid/V2ljaanded/Toimetised/2012/series_20122eng.pdf) (p 18)

4 The OECD's 2008 EPL indices: <http://www.oecd.org/employment/employmentpoliciesanddata/42768860.xls>

Annex 1

Table A. Wage growth by field of employment

	Wage adjustments Q2 2009 vs Q2 2008	Growth Q2 2012 vs Q2 2008	Growth Q2 2012 vs Q2 2009	Q2 2012 y-o-y
	Wage drop in the recession	from boom to present	from lowest to present	latest growth rate
<b>Total</b>	-4.4%	5.8%	10.7%	5.0%
<b>Electricity, gas, steam and air conditioning supply</b>	8.5%	21.9%	12.3%	2.5%
<b>Arts, entertainment and recreation</b>	-5.1%	15.8%	22.0%	13.4%
<b>Manufacturing</b>	-6.7%	13.8%	21.9%	8.0%
<b>Professional, scientific and technical activities</b>	-6.0%	11.7%	18.9%	6.2%
<b>Information and communications</b>	-2.0%	9.8%	12.1%	4.4%
<b>Real estate activities</b>	6.0%	7.4%	1.4%	10.0%
<b>Accommodation and food service activities</b>	-2.0%	6.7%	8.9%	9.0%
<b>Agriculture, forestry and fishing</b>	-11.2%	5.4%	18.7%	4.6%
<b>Mining and quarrying</b>	-16.3%	4.5%	25.0%	-1.0%
<b>Financial and insurance activities</b>	-0.1%	4.5%	4.6%	1.7%
<b>Water supply; sewerage, waste management and remediation activities</b>	-7.6%	4.4%	13.1%	7.9%
<b>Administrative and support service activities</b>	-2.2%	4.3%	6.7%	5.8%
<b>Human health and social work activities</b>	-1.2%	4.2%	5.4%	4.5%
<b>Wholesale and retail trade; repair of motor vehicles and motorcycles</b>	-6.0%	3.2%	9.7%	3.4%
<b>Construction</b>	-15.0%	2.8%	20.9%	12.5%
<b>Transportation and storage</b>	-4.5%	0.3%	5.1%	1.1%
<b>Education</b>	0.2%	-2.7%	-2.8%	1.7%
<b>Public administration and defence; compulsory social security</b>	-4.7%	-3.1%	1.7%	4.5%
<b>Other service activities</b>	-3.4%	-14.4%	-11.3%	5.7%

## Annex 2

Table B. EPL index in the Baltic countries

	Estonia 2012	Latvia 2012	Lithuania 2012	Estonia 2008[I]	Estonia 2012 (changed weights)
<b>OVERALL SUMMARY INDICATOR</b>	<b>2.46</b>	<b>2.33</b>	<b>2.37</b>	<b>2.39</b>	<b>2.18[II]</b>
<b>Regular contracts</b>	<b>1.94</b>	<b>2.23</b>	<b>2.58</b>	<b>2.27</b>	<b>1.94</b>
<b>Procedural inconveniences</b>	<b>1</b>	<b>1.3</b>	<b>1.5</b>	<b>1</b>	<b>1</b>
Notification procedures	2	2.60[III]	2	2.00[IV]	2
Delay to start a notice	0	0	1	0	0
<b>Notice and severance pay for no-fault individual dismissals</b>	<b>1.81</b>	<b>2</b>	<b>3.24</b>	<b>2.62</b>	<b>1.81</b>
Notice period after					
9 months	2	3	6	5	2
4 years	2	2	4	3	2
20 years	2	1	2	1	2
Severance pay after					
9 months	2	2	2	3	2
4 years	2	2	4	3	2
20 years	1	2	2	1	1
<b>Difficulty of dismissal</b>	<b>3</b>	<b>3.4</b>	<b>3</b>	<b>3.2</b>	<b>3</b>
Definition of unfair dismissal	4	4	4	4	4
Trial period	4	4	4	4	4
Compensation	0	2.00[V]	2	1	0
Reinstatement	6	6	4	6	6
Maximum time for claim	1	1	1	1	1
<b>Temporary contracts</b>	<b>2.67</b>	<b>1.96</b>	<b>1.96</b>	<b>2.17</b>	<b>2.67</b>
<b>Fixed-term contracts</b>	<b>4</b>	<b>2.25</b>	<b>2.25</b>	<b>3</b>	<b>4</b>
Valid cases for use of fixed-term contracts	6	4	4	4	6
Maximum number of successive contracts	4	0	0	4	4
Maximum cumulated duration	0.00[VI]	1	1.00[VII]	0	0
<b>Temporary work agency employment</b>	<b>1.33</b>	<b>1.67</b>	<b>1.67</b>	<b>1.33</b>	<b>1.33</b>
Types of work for which is legal	0	0	0	0	0
Restrictions on number of renewals	2	2	2	2	2
Maximum cumulated duration	0	0	0	0	0
Authorisation and reporting	0	2	2	0	0
Equal treatment	6	6	6	6	6
<b>Collective dismissals</b>	<b>3.25</b>	<b>3.5</b>	<b>2.88</b>	<b>3.25</b>	<b>3.25</b>
Definition of collective dismissal	6	6	4.5	6	6
Additional notification requirements	6	6	6	6	6
Additional delays involved	1	1.00[VIII]	1	1	1
Other special costs to employers	0	1	0	0	0

[I] In order to find the values of each item for Estonia in year 2008, the OECD detailed description of EPL indices and its data is being used. (<http://www.oecd.org/employment/employmentpoliciesanddata/42740165.pdf>)

[II] The OECD standard equation for finding overall EPL index from sub-indicators is:  $5/12 \times \text{regular contracts} + 5/12 \times \text{temporary contracts} + 2/12 \times \text{collective dismissals}$ . The weights of sub-indicators have been changed to conform more to Estonian situation, as in year 2011 only 4,5% of all contracts were fixed-term contracts. The equation of overall index with altered weights:  $9.55/12 \times \text{regular contracts} + 0.45/12 \times \text{temporary contracts} + 2/12 \times \text{collective dismissals}$ . The weight of collective dismissals remained unchanged as the rate of collective dismissals in Estonia is approximate to the OECD weight. Using the data of Estonian Statistics about the dismissed employees ([http://pub.stat.ee/px-web.2001/Database/Majandus/12Palk\\_ja\\_toojeukulu/09Vabad\\_ametikohad/04Luhiajastatistika/04Luhiajastatistika.asp](http://pub.stat.ee/px-web.2001/Database/Majandus/12Palk_ja_toojeukulu/09Vabad_ametikohad/04Luhiajastatistika/04Luhiajastatistika.asp)) and Estonian Unemployment Insurance Fund data about the number of people entitled to benefit upon collective termination of employment contracts, it can be found that from Q1 2005 to Q2 2009 collective dismissals constituted about 18,7% of all employer started terminations of employment contracts.

[III] Usually a written notice is necessary in case of terminating a contract in Latvia, but an employer is prohibited from giving a notice of termination of an employment contract to an employee who is a member of a trade union without prior consent of the relevant trade union except in few cases. About 15% of workers belong to trade unions in Latvia. The score of terminating a regular contract is found as follows:  $0.85(1*2) + 0.15(3*2) = 2.6$ .

[IV] In the table the OECD EPL value and the values for each item for year 2008 are represented. However, according to our calculations, the Estonian EPL index for year 2008 should have been a bit higher, as we also took the obligation of notifying the local labour office into account when finding the value of the regular contract's sub-indicator. OECD has not included this obligation in their calculations. In case of including this notification obligation, the value for sub-indicator of regular contracts would be 2.61, sub-indicator of collective dismissals 2.5 and the overall EPL index 2.41.

[V] In Latvia and Lithuania when court finds that the dismissal was unlawful, an employee who has been dismissed illegally shall be paid average earnings for the whole period of forced absence from work. But both the maximum and average compensation depend on how fast the court reaches the decision. The scores for Latvia and Lithuania are found based on an assumption that the average or maximum compensation is between 9–12 average monthly earnings. Using 4–8 or 13–18 monthly wages as the amount of compensation would alter the overall index very little (accordingly 0.03 points up or down).

[VI] The Estonian Employment Contracts Act does not specify explicitly the maximum cumulated duration of fixed term contracts, but the maximum cumulated duration can be found as the maximum duration of a single fixed-term contract is five years and the maximum number of successive fixed-term contracts is two. So the maximum cumulated duration would be 10 years. OECD has also found for Estonia in year 2008 that the maximum cumulated duration is 120 months, but probably because of a very long duration, the score of the item showing maximum cumulated duration of fixed-term contracts is still equaled to zero, which corresponds to a situation when no limit to the duration exists. The value of this item for year 2012 is therefore also equaled to zero. But when the score of cumulated duration would be 1, the sub-indicator of fixed-term contracts would rise to 2.79 and the overall EPL index to 2.51.

[VII] As a rule, the maximum cumulated duration of fixed-term contracts in Lithuania is 5 years, but as an exception a fixed-term contract that is set up to fill a new position, may last only for 2 years.

[VIII] The Latvian Labour Law enacts that an employer who intends to carry out collective redundancy shall in good time commence consultations with employee representatives before collective redundancy. However, in order to specify additional delays that are involved when carrying out collective redundancy, the good time is limited to 15 days which is also the time for commencing consultations in Estonia.