

Eesti Pank



EUROSÜSTEEM

# LABOUR MARKET REVIEW

Compiled by  
Natalja Viilmann  
Orsolya Soosaar

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<b>MAIN DEVELOPMENTS IN 2011</b>	3
<b>LABOUR SUPPLY AND DEMAND</b>	4
Labour force participation and economic inactivity	4
Employment	7
Unemployment	10
Vacancies	13
Wage and labour costs	14
Reservation wages of the unemployed	15
Labour productivity	15
Unit labour costs	16
<b>INSTITUTIONAL DEVELOPMENTS</b>	18
Minimum wages	18
Collective work relations	19

*The Labour Market Review compiled by the experts of Eesti Pank examines the recent developments in the Estonian labour supply, labour demand and prices. The central bank monitors labour market developments for two reasons. First, the labour force is an important production input and so the change in labour supply or activity has an impact on potential economic growth. Second, the labour market may have a large impact on inflation. Given the euro area monetary policy, which aims at price stability, and the openness of the Estonian economy, the economy can only adjust to changes through input prices and volumes. Therefore, measures reducing labour market flexibility must be continuously avoided, and the development of labour costs should be kept in line with that of productivity to avoid excessive inflation.*

## **MAIN DEVELOPMENTS IN 2011**

The present review focuses on the developments on the Estonian labour market in 2011. The year 2011 first saw rapid recovery from recession, which was followed by a slowdown in growth in the fourth quarter. Economic growth was inhibited by sluggish growth in external demand resulting from the uncertainty of the economic outlook in Europe. All in all, 2011 turned out to be more favourable for the labour market than expected and new jobs were created in several fields of activity. At the same time, many changes occurred on the labour market: in employment structure, working time, wages and also on the institutional level. Labour costs increased more slowly than nominal economic growth, which entailed an increase in the share of profit in GDP. Thus, the gap between wages and productivity that emerged before the recent crisis has substantially decreased and the income structure of the value added is close to the pre-boom levels.

Although employment grew rapidly in 2011, in historical terms and also compared to other European countries, the share of long-term unemployed in total unemployment reached almost 60% by the end of the year. The number of those who have been looking for a job for more than two years increased too. The gradually slowing economic growth entails the risk that chances of finding a job will decrease and the share of long-term unemployed will increase even further. Long-term unemployment lowers the probability of finding a job and raises the risk that a person loses hope in finding a job and becomes discouraged. So, the main objective of the labour market policy in the coming years is to increase the competitiveness of the long-term unemployed on the labour market.

Unemployment benefits system must ensure the re-employment of people as fast as possible. Furthermore, the situation where entitlement to benefits inhibits willingness to look for a job must be avoided. The effectiveness of different measures has been monitored regularly in the recent years to make the use of labour market policy measures even more efficient in the future. Under conditions of very high unemployment it was important to ensure help for as large a number of people as possible, while in a more sustainable economic development the measures for different risk groups must be ensured first.

The development of labour market indicators continued to be in line with the cyclical development of the economy, following economic growth with some time-lag. After deep recession, once export demand recovered, production picked up without additional labour needed; that is owing to growth in productivity. This was followed by a period when it was no longer possible to increase the volume of production without hiring additional labour. Employment started to recover, but the productivity growth rate decreased. In the last quarter of 2011, economic growth slowed down in annual terms and growth in labour costs again outpaced that of total output. The continuing rise in labour costs and the slowing of economic growth were also reflected in the more rapid growth in unit labour costs, which reached 4.1% in the fourth quarter. If such a growth rate persists, it will put pressure on inflation and pose a threat to internal economic balance. Given that the economic environment is still largely unstable, wage expectations and demands should not be too optimistic for 2012.

When demand in Estonia fell sharply during the recession, cuts in working hours and wages helped to avoid an even sharper decline in employment. If the uncertainty surrounding the external environment increases, economic growth may slow down even further in the next quarters, and there may once again appear the need to bring labour costs in line with production volumes. In that case, moderate wage pressures and decisions that take account of the risks related to the external environment may help maintain the current level of employment.

## LABOUR SUPPLY AND DEMAND

### Labour force participation and economic inactivity

Estonia's working age population, aged 15–74, has been decreasing since 2000 but its impact on the labour market has been offset by an increase in the labour force participation rate during the recession in 2008-2009 and the subsequent recovery. However, a substantial part of the increase can be explained by changes in the population age structure. In addition to demographic changes, the labour force participation rate rose in the second half of 2008, that is at the beginning of the recession, when inactive family members returned to the labour market in fear of the main breadwinners of the household losing their jobs. Consequently, the number of people economically inactive due to, for example, taking care of family members or illness, fell in the period of rapidly increasing unemployment.

The labour force participation rate was higher than expected in 2011, at 67.6%. This means that even though the working age population shrank by 5,000, labour force increased by 9,100 at the same time (see Figure 1).

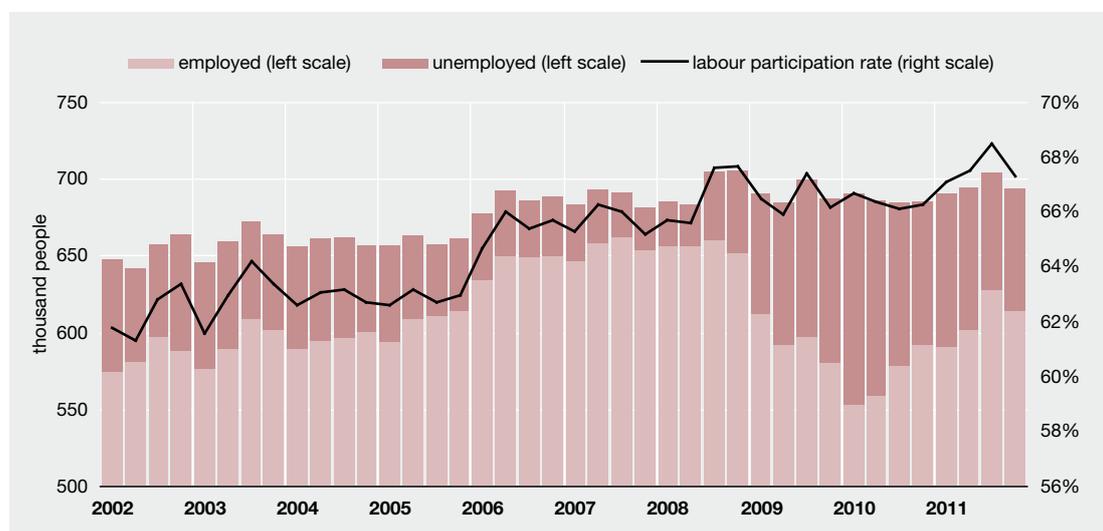


Figure 1. Number of the employed, the unemployed and the labour participation rate

Under conditions of high unemployment and increasing long-term unemployment, it was surprising that the activity rate remained very high compared to previous periods. Long-term job search and termination of unemployment benefits heightens the risk of losing hope of finding a job and becoming discouraged. The number of discouraged workers increased approximately 14% to 10,000 people in 2011, but the increase can be considered moderate. It is likely that the rapid recovery of employment helped to maintain hope of finding a job. The unemployed were also motivated to actively continue

looking for a job, as the registered unemployed were covered by health insurance, which can be considered as one type of unemployment benefits. As an alternative, it is possible to purchase voluntary health insurance from the Estonian Health Insurance Fund. The monthly insurance premium is equal to 13% of the average monthly gross wages of the previous calendar year, as set out the Health Insurance Act. For instance, the monthly insurance premium was 103 euros in 2011, which constituted 37% of the minimum wages and largely exceeded the unemployment benefit of 65 euros. Policy measures that support the motivation of the unemployed to actively look for a job, while not reducing their motivation to accept a job offer, are important, as they help to avoid the risk of poverty accompanying discouragement. Moreover, it is difficult to reactivate those who have left the labour market, whatever the measures are.

In terms of gender, women made a bigger contribution to the rise in the labour force participation rate in 2011. In terms of age, the continuing rise in the participation rate of people aged 50–74 contributed the most. The number of people economically inactive due to retirement shrank by 8,200; the fall in the number of women economically inactive due to retirement constituted 84.1% of the total decrease. The average retirement age for women has been increasing since 2001, together with the gradual raising of the official retirement age. The raising of the retirement age for women ends in 2016, once it reaches the age of 63 and equals that of men.

The number of people inactive due to studies fell by 6,700 in 2011. On one hand, the labour force participation rate of the young increased slightly, while the small number of the young born in mid-1990s, now aged 15–19, had a greater impact on the rate. The recent trend, where the decrease in the working age population is offset by the increase in the labour force participation rate, will continue in the coming years (see the background information below).

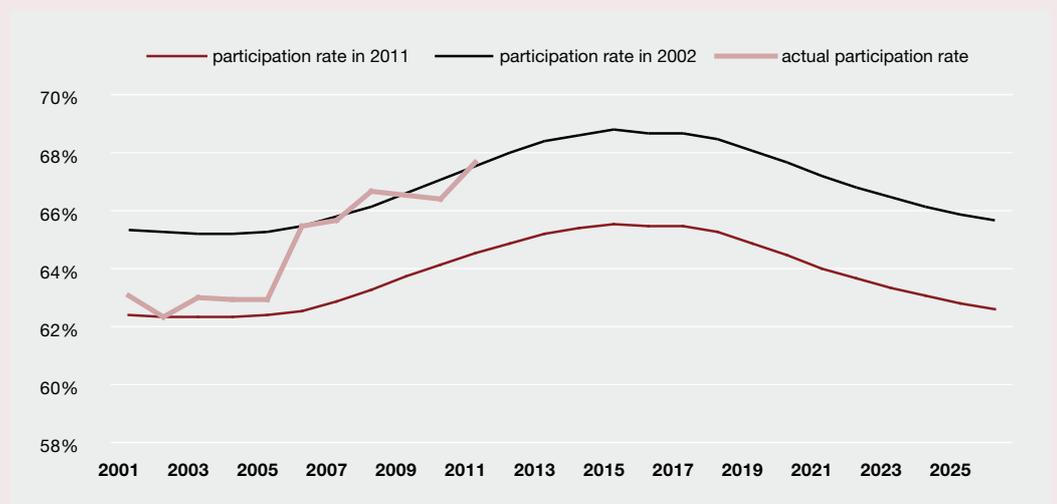
### **The age structure of the working age population and labour force participation**

Potential economic growth is largely determined by the amount of labour in the economy. Labour force, in turn, depends on the working age population and the labour force participation rate. Hence, the labour market and the social policies must be designed so as to motivate participation in the labour force, while avoiding policy changes with opposite effects. The changes in the participation rate through time are monitored and estimated by several Estonian and international institutions, including Eesti Pank. The shortcoming of the general indicator is that in addition to changes in policy and the business cycle, the rise or fall in the participation rate may also result merely from changes in the age structure of the working age population. This background information eliminates demographic effects from the changes in labour force participation over the past ten years to find the time series of the real participation rate that exclude demographic changes.

The labour force participation rate of the working age population, that is people aged between 15 and 74 years, may be expressed as a weighted average of the participation rates for people aged 15, 16, etc. until 74 years. The weights are the percentages of people in the corresponding age in the total working age population (aged 15–74). Given that the majority of the 15 to 19-year-olds are inactive due to studies, the labour force participation rate is very low at the beginning of the age range. The participation rate increases with age, reaching its maximum in late-20s. The labour force participation rate decreases at the end of the age range, as people

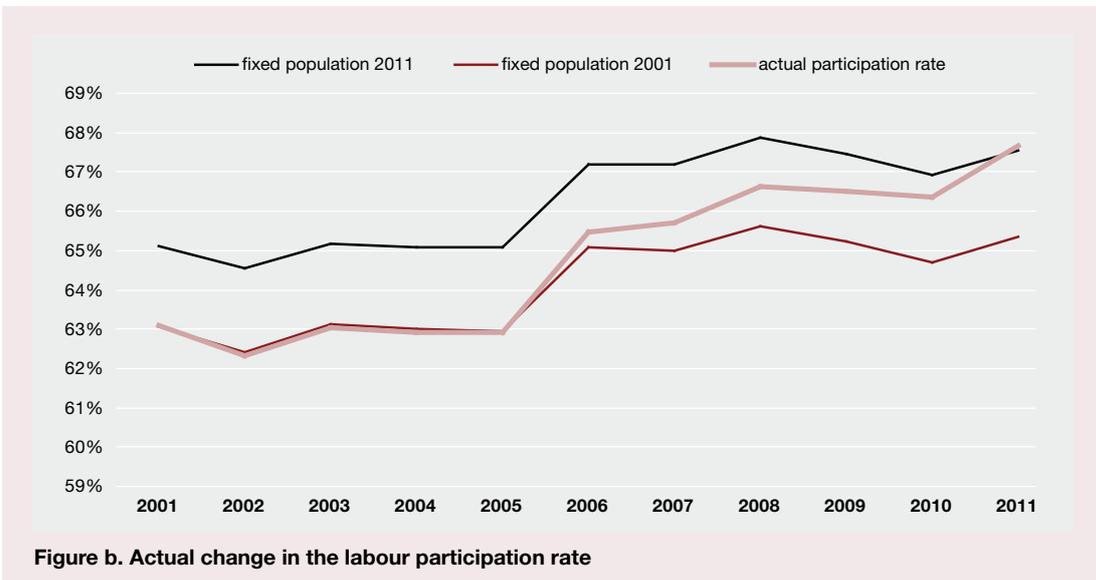
either retire or leave the labour market due to health problems. Thus, changes in the general labour force participation rate may result from two sources: changes in participation rates or percentages. For example, if the participation rate for the 15-year-olds (which is considerably lower than the average) increases or their share in the total working age population decreases, the general participation rate of the working age population will rise.

With a stable birth rate, the age structure of the population is also relatively constant over time and does not cause large fluctuations in the general labour force participation rate of the working age population. However, the end of the 1980s and the beginning of the 1990s saw large fluctuations in the Estonian birth rate. The so-called Singing Revolution generation of a few years is more numerous than the average, but the following generation born in the mid-1990s is small in number. Their movement in the population pyramid will affect the general labour force participation rate in the near future in two ways. First, a large generation moves to an age group, where labour force participation is close to its maximum. Second, the share of 15 to 19-year-olds, who have a low participation rate, decreases. Figure a shows how the labour force participation rate in Estonia would develop, if only the age composition of the population changed and labour force participation of the age groups remained unchanged at 2001 and 2011 levels. Results for the years 2012–2026 are obtained by means of a simple population estimation, assuming constant mortality rates for annual age groups (at the average levels for 2010–2011).



**Figure a. Impact of age structure on the labour participation rate**

However, if the age composition of the working age population remained constant over time, the labour force participation rate of the past decade would have turned out as seen from Figure b. It appears that there indeed occurred an essential, nearly a 2-percentage point structural shift in the labour force participation rate in 2006. The shift was caused by several factors. For example, the article allowing for the lay-off of an over 65-year-old worker due to reaching retirement age, was abolished from the Employment Contracts Act. Furthermore, the economic cycle reached the boom phase. In reality, labour force participation remained relatively constant from 2006 till 2011 and the observed upward trend of the general indicator has, to the most part, resulted from demographic changes.



## Employment

In the turmoil of the global economic and financial crisis, around 107,000 jobs disappeared in Estonia within six quarters. The fall in employment during recession and the following recovery that started in the second half of 2010, was exceptionally rapid both in historical terms and in comparison with other European Union countries. Total employment increased 6.7%, or by 38,200 people, in 2011. By the fourth quarter, employment was still below the pre-crisis level, being approximately by 46,000 people lower. Part of the high volatility in employment resulted from the jobs created in connection with the boom in domestic demand between 2006–2008 and their disappearance, especially in the construction and real estate sectors. If the moderate employment growth observed from 2000 till 2005 had continued before the crisis, the fall in employment would have been 20% smaller, and at the end of 2011 employment would have been by 25,000 people lower than at the beginning of the crisis.

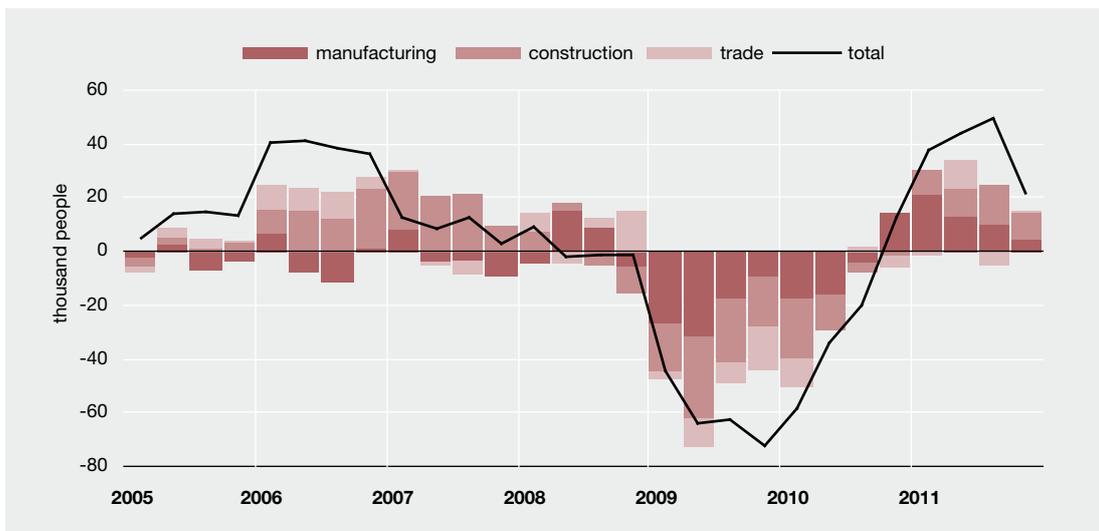
Employment started to recover rapidly in the second quarter of 2010 and seasonally adjusted quarterly growth peaked at 3% in the fourth quarter. Recovery continued in the first three quarters of 2011, although at a slower pace. In the fourth quarter, however, the number of the employed shrank by 8,300 (seasonal factors taken into account) from the previous quarter. This was caused by 0.2% recession in quarterly terms.

In terms of fields of activity, employment started to grow first in the manufacturing industry, while growth was broad-based across sub-sectors. Industrial production increased substantially in the field of computers, electronic and optical equipment. However, as this field of activity is not labour-intensive, its contribution to employment growth was much smaller than to that of industrial production.

The number of employed in the construction sector on the Estonian territory has fluctuated the most over the past seven years. In 2005, that is in the pre-boom period, this number was 46,700. It increased by 1.6 times during the boom (in 2007) and decreased to 37,000 during the recession (in 2010). In 2011, another 8,800 jobs were created in the construction sector and the average number of the employed rose to 45,800. Although employment in the construction sector is unlikely to reach the

peak witnessed during the real estate boom in near future, it has slightly recovered, given that some investment projects got temporarily postponed during the recession (see Figure 2).

The uneven changes in employment during and after the recession had a great impact on the employment structure in different fields of activity. In 2011, the share of people employed in the construction sector in total employment increased by one percentage point from 8.7% to 9.7% in annual terms, and to 10.8% in the second half of the year. The total number of the employed increased by 60,900 after the recession, mostly in manufacturing (33,600) and construction (23,200).

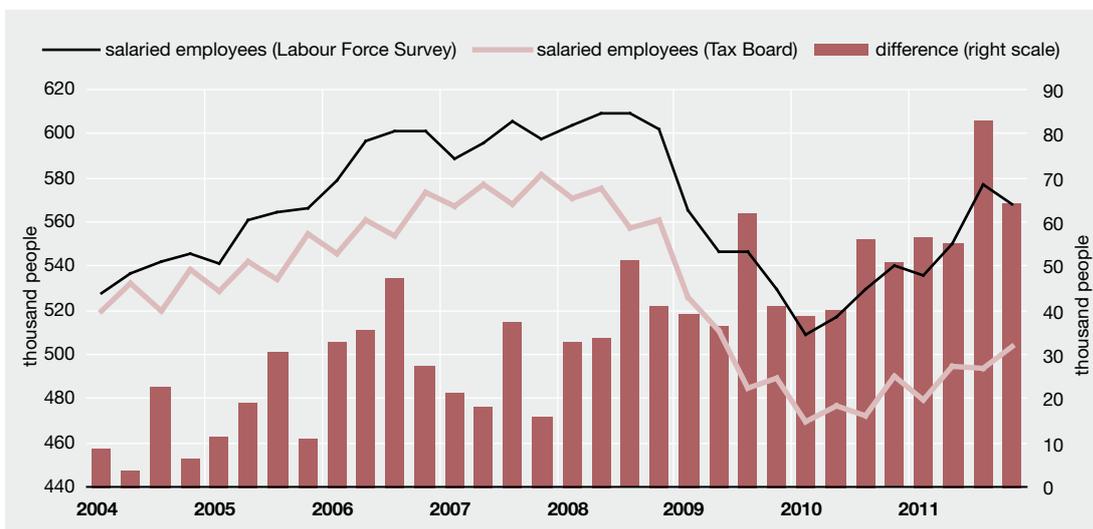


**Figure 2. Change in employment by fields of activity**

The cuts in working hours by imposing part-time work or unpaid leave helped to avoid an even sharper decline in employment during the recession, while after the recovery these factors slowed down employment growth. The share of part-time workers rose from 8% to 10% during the recession, with nearly half of the additional part-time workers being underemployed. This indicator has not really changed with the recovery of the economy, and the share of full-time workers in total employment is still 90%. If the average number of working hours per employee had remained at its 2008 level, an additional 50,000 jobs would have had to disappear for the total number of working hours to decrease to the actual level observed. On the other hand, the buffer for working time inhibited job creation during the recovery. In the third quarter of 2011, the number of working hours per employee rose by 2.6% in annual terms, while still being 3.9% lower than the pre-crisis level.

Information on the number of salaried employees can be obtained from several sources. The Estonian Labour Force Survey gives the highest estimate, stating that the number of salaried employees was 568,000 in the fourth quarter of 2011, including also part-time employees and those working temporarily abroad (altogether 21,700 people). According to the data of the Estonian Tax and Customs Board, the number of salaried employees was 503,743, which includes only those employees who actually received wages in that period and their wages were declared in the Estonian Tax and Customs Board. Part of the information spread between the two sources, though not the whole of it, can be explained by employees on vacation, who did not receive wage payments. Employees working in the shadow economy, whose wages are left undeclared, are at least partly included in the survey results, but are obviously not in the Tax Board database. During the crisis, the spread between the two indica-

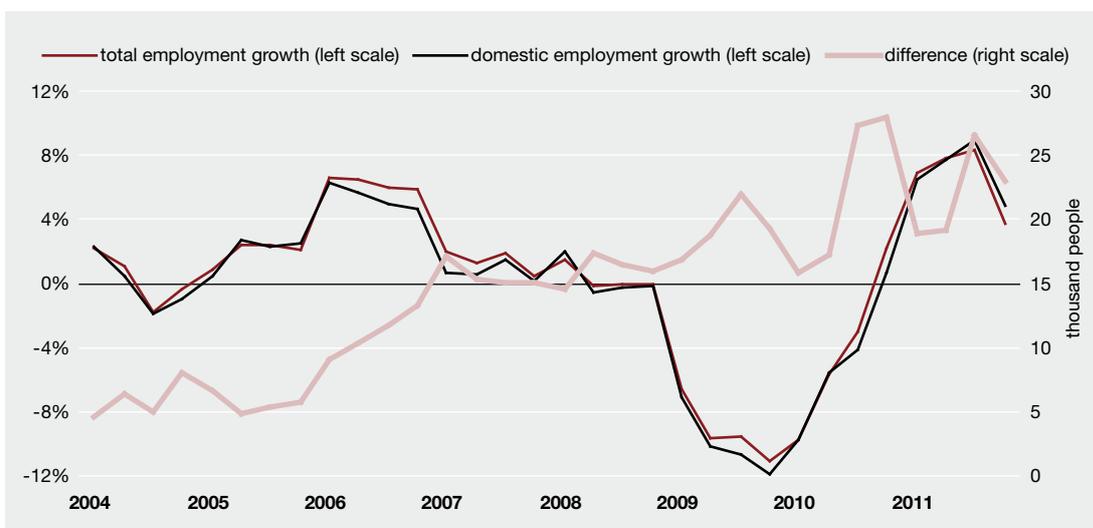
tors increased remarkably, referring to disruptions in payments, increase in concealed employment relations or the growing popularity of working abroad. In the fourth quarter of 2011, this difference had increased to 64,000 people (see Figure 3).



**Figure 3. Salaried employees**

The difference may also originate from the overestimation of employment in the Labour Force Survey, as the results of the survey, conducted on a sample basis, are extended to the number of 15–74-year-olds unadjusted for migration. According to Statistics Estonia, migration-adjusted population was 1.7% (by 17,000 people) smaller. The estimate of net migration has, however, relatively high error margins and may underestimate the decline in actual population. The 2011 Population and Housing Census will bring greater clarity to this issue.

The total employment indicator includes also people who are Estonian residents but who are working abroad.<sup>1</sup> This indicator was 22,200 in 2011 (see Figure 4).



**Figure 4. Total and domestic employment**

<sup>1</sup> Total employment includes both domestic employment and Estonian residents working abroad; it does not include non-resident foreigners working in Estonia.

The rise in the number of employees working abroad contributed largely to the increase in total employment in the second half of 2010, concerning mostly workers in construction, storage and transport. At the same time, total employment abroad did not increase substantially in 2011, which was probably due to stronger labour demand in Estonia and a slowdown in economic growth in Scandinavia in the second half of the year. In 2010 and 2011, approximately one third of the people employed abroad were working for Estonian companies, which should be considered exports of services.

## Unemployment

According to Statistics Estonia, the unemployment rate fell to 12.5% and the annual average number of the unemployed dropped to 86,800 in 2011. In the fourth quarter, 11.4% of the active labour force (that is residents aged 15–74) was unemployed. The last time when unemployment rate was at that level was eleven quarters ago, in the first quarter of 2009 (see Figure 5).

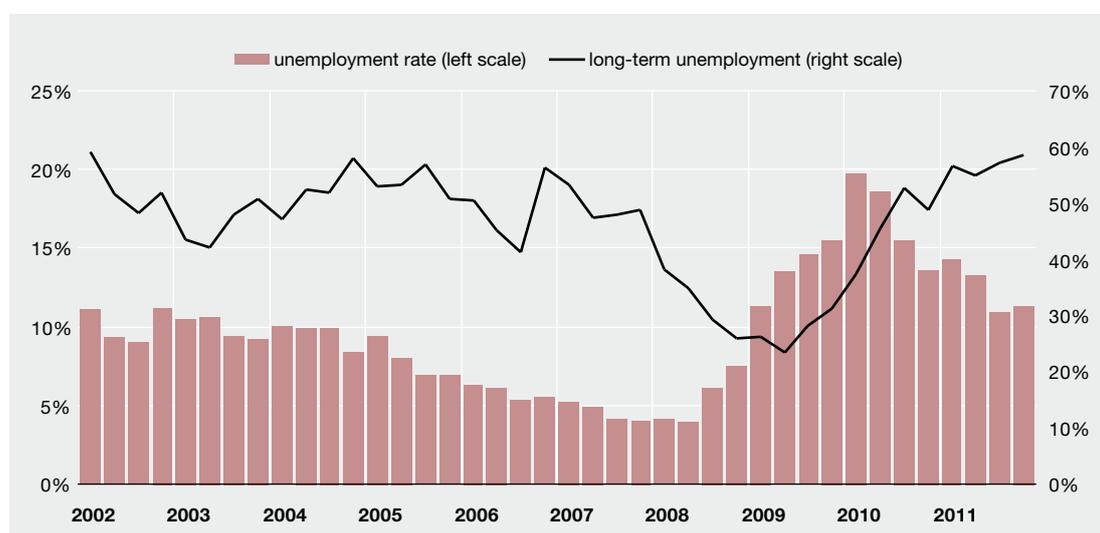
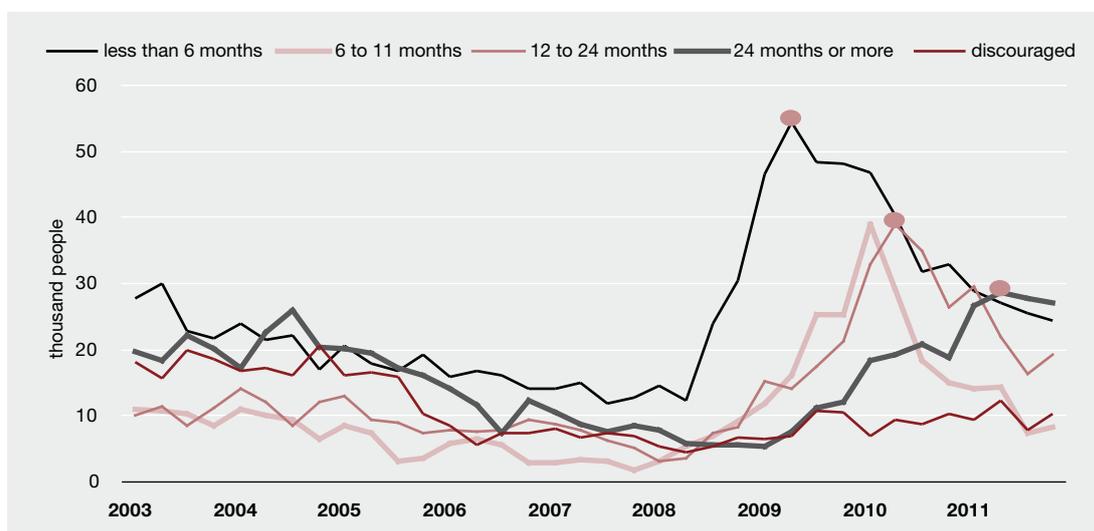


Figure 5. Unemployment rate and long-term unemployment

By region, unemployment grew the most in Ida-Virumaa, peaking at 28.4% in the second quarter of 2010, and in Tallinn, rising from 2.7% in the boom period to 21.4% in the first quarter of 2010, that is during the recession. Unemployment fell at the same rate – by almost 10 percentage points by the fourth quarter of 2011 – in the whole country, except for Western-Estonia, where the decrease was twice as slow. At the end of 2011, North-Eastern Estonia with its unemployment rate of 18.7% stood out from the other regions, where unemployment was 9–11% on average.

The number of the short-term employed (out of work for less than a year) continued to fall in 2011, reaching once again the level recorded in the second half of 2008, when recession only started to gain momentum. This level is twice as high as that of the boom period, but was characteristic to Estonia in previous periods, for instance in 2003. Long-term unemployment reflected the movement of those, who had been made redundant during and after the recession, between unemployment duration categories. The number of the unemployed out of work for up to six months reached its maximum in the second quarter of 2009; the number of those out of work for 12 to 24 months peaked a year later; and the number of the unemployed out of work for more than 24 months reached a record high two years later. So, a substantial part of the unemployed, who lost their jobs during the recession, have still not

returned to employment. The fact that the bottom of the recession proved to be relatively short-term and the Estonian economy started to recover quite rapidly, saved unemployment from a bigger stagnation (see Figure 6).

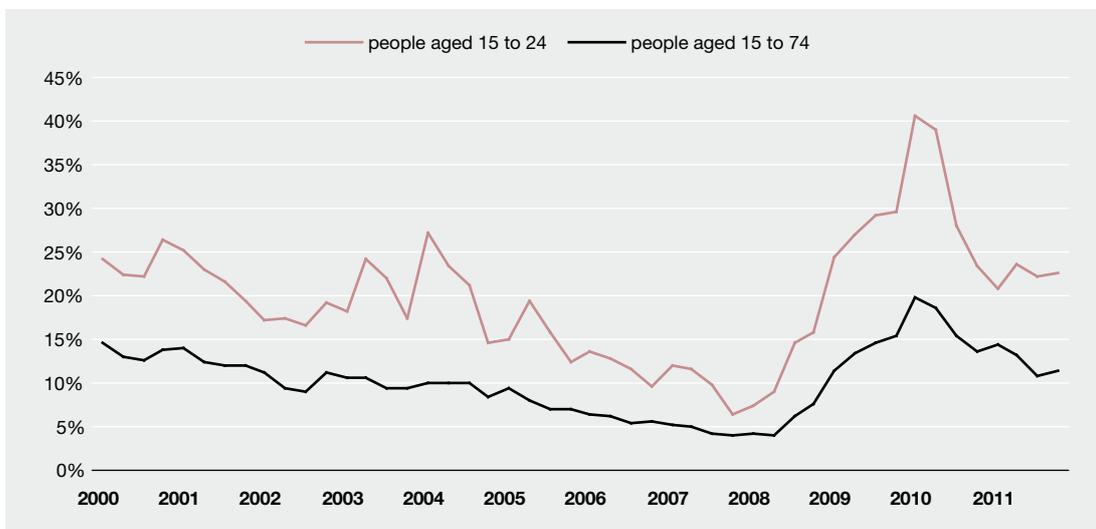


**Figure 6. Unemployment by length and the discouraged**

The probability of finding a job decreases as the length of unemployment increases, since professional skills diminish over time, confidence at job interviews decreases and the habit of working disappears. Although the total number of the unemployed is still falling, the number of long-term unemployed may remain high for a longer period. The share of long-term unemployed in total unemployment increased to 58.6% in the fourth quarter of 2011, and this upward trend will continue in the near future.

The demographic characteristics of the long-term unemployed are significantly different from those of the short-term unemployed and the employed. Nearly a third of the long-term unemployed are the elderly (aged over 50 years). There are almost twice as many long-term unemployed elderly than short-term unemployed elderly. The share of people, who do not speak Estonian, in the number of long-term unemployed is also very high. Based on the data for the first half of 2011, 42% of the long-term unemployed did not speak Estonian at all. Compared to the short-term unemployed, a large proportion of the long-term unemployed lacked vocational or professional education. The labour market policy measures aimed at those people must be purposeful and their effectiveness must be assessed and monitored. At the same time, acquiring language skills and vocational education is time-consuming, which calls for measures that help to avoid facing poverty and losing motivation.

Another important risk group are the 15–24-year-olds, whose unemployment rate increased the fastest during the recession. Youth unemployment is a serious social risk factor, as their long-term exclusion from the labour market may influence their future competitiveness and will to work. Transition from study to work is not easy for many young people, especially in times of economic and labour market recession. Although the number of unemployed young people has substantially declined with the recovery of the Estonian economy, their unemployment rate remains twice as high as the average (see Figure 7).



**Figure 7. Average and youth unemployment rates**

The emergence of the so-called NEETs (neither in employment, nor in education or training) is even more harmful than the high youth unemployment rate. The risk of marginalisation and exclusion from the labour market, which increases proportionally with time spent away from active work life, is considered very high for the group in question. Therefore, investing in youth must remain a political priority.

Although several measures aimed at supporting the young have been adopted recently, the coordinated implementation of the measures at every level must be more effective. Pressures arising from the ageing society as well as demographic changes now require even greater efforts to integrate the young in the labour market. At the same time, measures aimed at increasing youth employment should not be limited to the Estonian Unemployment Insurance Fund, but should include different participants (general and vocational education system, universities, employers, third sector and local governments) under a broader development strategy.

Developments in registered unemployment do not exactly coincide with the estimate of unemployment in the Labour Force Survey, because registration as unemployed is voluntary in Estonia. In addition to the developments in total unemployment, the activity of registration as unemployed is influenced by accompanying benefits (unemployment insurance, unemployment benefits, insurance from the Estonian Health Insurance Fund, training opportunities, etc.) that seem more or less attractive for the unemployed, depending on the phase of the economic cycle. In 2011, the share of the registered unemployed in total unemployment fell from 69% to 63% (see Figure 8).

In 2011, unemployment insurance benefits were paid to 12,000 people (22% of the registered unemployed) and unemployment allowances to 10,300 people (19%). All in all, only 41% of the registered unemployed (26% of the total of the unemployed) received some kind of benefits, while 64,500 people did not receive any benefits (did not deem it important to register or did not meet the requirements for receiving benefits), although they may have been eligible for other active labour market measures. The share of the unemployed receiving some kind of benefits in the total number of the registered unemployed has decreased by nearly 10 percentage points in a year.

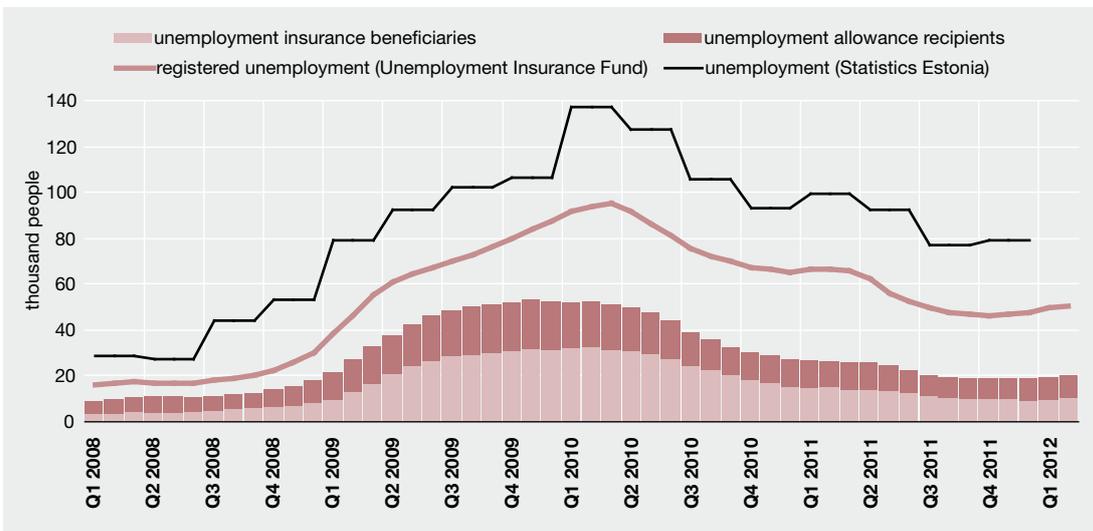


Figure 8. Unemployment in Estonia

### Vacancies

Statistics Estonia has been collecting internationally comparable and high-quality statistics on vacancies, based on business surveys, since 2005. Job vacancy rate – the share of job vacancies in the total of occupied posts and vacancies – increased from 1% at the bottom of the recession to 1.5% in the third quarter of 2011. In terms of fields of activity, the information and communications sector stood out with a job vacancy rate of nearly 3.5%, which indicates lack of specialists in this field.

When comparing the job vacancy rate with that of unemployment, we obtain the Beveridge curve that characterises the effectiveness of the labour market in matching the unemployed with vacancies. An upward and rightward shift of the curve would indicate failures and problems of structural unemployment, which is not the case in Estonia (see Figure 9).

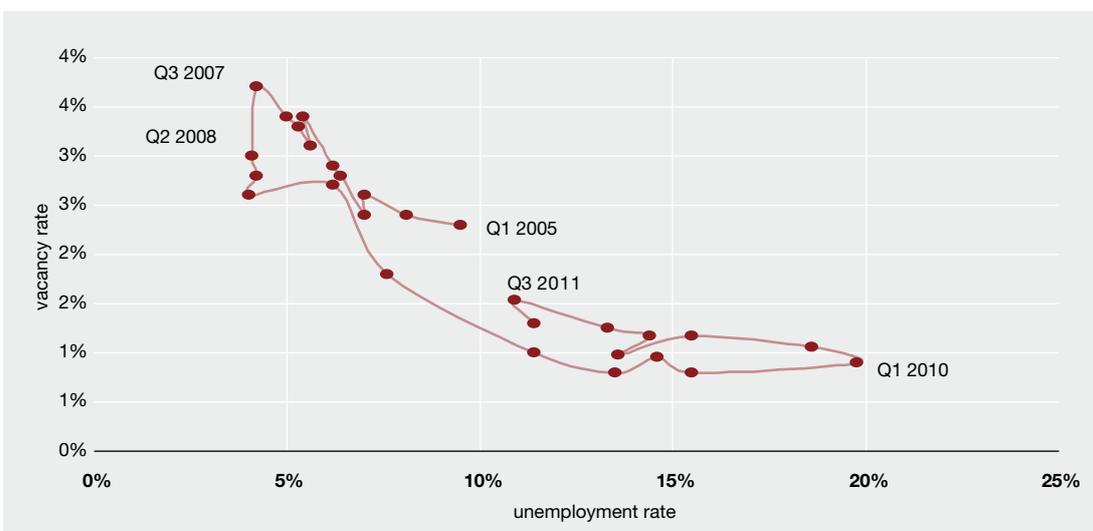


Figure 9. Beveridge curve (Q1 2005–Q4 2011)

## Wage and labour costs

Annual growth in average gross monthly wages turned positive in the second quarter of 2010, having fallen by 5% in nominal terms in 2009. In 2011, together with the rapid recovery of employment, annual growth in average wages picked up to 5.4% and reached as much as 6.4% in the second half of the year. At the same time, average gross monthly wages were only 1.4% higher in 2011 than in 2008. Real wages started to grow in annual terms only in the second half of 2011, mainly due to a rapid rise in food and energy prices in 2010 and 2011 (see Figure 10.)



Figure 10. Annual growth in average gross monthly wages and real wages

Growth in average gross hourly wages remained below monthly wage growth during the whole recession period, except in the fourth quarter of 2011. The growth differential resulted from the bonus component that recovered gradually after a significant decrease during the recession. This indicates that entrepreneurs rather prefer to increase flexible wage components in the current uncertain economic environment.

In terms of fields of activity, wage growth was rapid in the mining industry (10.7%), where wages were 12% higher than in 2008, but also in wholesale and retail trade (10.4%), where it rather marked recovery from the recession. Average wages in manufacturing grew by 5.6% and although growth in industrial production slowed down remarkably in the second half of the year, it was not significantly reflected in wage growth. Average wages in the field of electricity, gas, steam and air conditioning supply were 20% higher in 2011 compared to 2008 probably due to the opening of the energy market and recruitment of qualified personnel.

Growth in average wages in public administration and education remained below the economy's average due to freezing wages paid from the state budget and lack of agreement for a new minimum wage rate. Average wages in the health sector grew by 5.4%. It must be kept in mind that growth in average wages is calculated in full-time terms. This figure does not reflect the reduction of working hours, which also contributed to wage cuts. In terms of institutional sectors, wages in local governments grew with a lag compared to the private sector and are thus somewhat behind the rest of the economy.

In Harju County and Tallinn, where average wages are the highest among the counties, average wage growth was one percentage point higher than the country's average. It can no longer be claimed that wages increased the fastest in Harju County, as was the case during the boom period. For example, in Rapla and Valga Counties average wage growth rates were 10.9% and 9.8% respectively in 2011.

### Reservation wages of the unemployed<sup>2</sup>

With increasing job opportunities, also the wage expectations of the unemployed rose significantly in 2011. In 2010, 28.4% of the unemployed would have worked for monthly gross wages of 300 euros, while in 2011 this percentage was only 19%, including women at 24.8% (41.2% in 2010) and men at 13.9% (18.5% in 2010). The share of the unemployed with a wage expectation of at least 601 euros remained at its 2010 level at 24.6%, which is still well below the 41% observed in 2008 (see Figure 11).

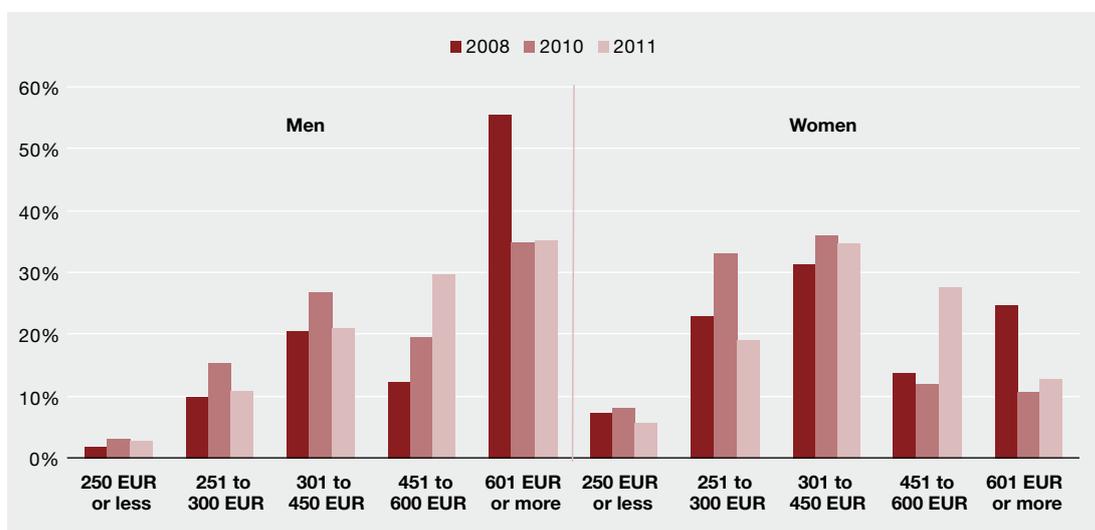


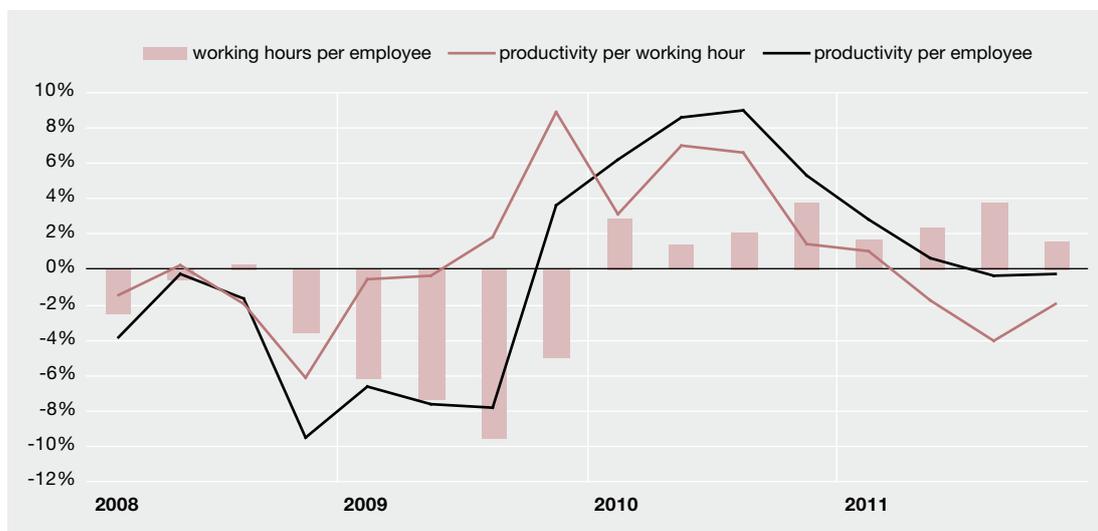
Figure 11. Reservation wages of the unemployed

### Labour productivity

Employment and wage dynamics always follow economic development with some lag. Labour productivity drops during a slowdown in economic growth and deepening recession due to its inertia, and increases once the economy stabilises and growth recovers. Labour costs were quickly curbed during the recession. However, once growth had recovered, it took longer for the labour costs to start increasing.

As many companies cut working hours, imposed part-time work and partially paid leave instead of laying off workers during the recession, the drop in hourly labour productivity was smaller and reaction to economic development was faster. At the beginning of 2010, the number of working hours per employee started to rise and the increase in productivity per working hour started to slow first and to decrease in the second half of 2011, when economic growth declined (see Figure 12).

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



**Figure 12. Annual growth in labour productivity**

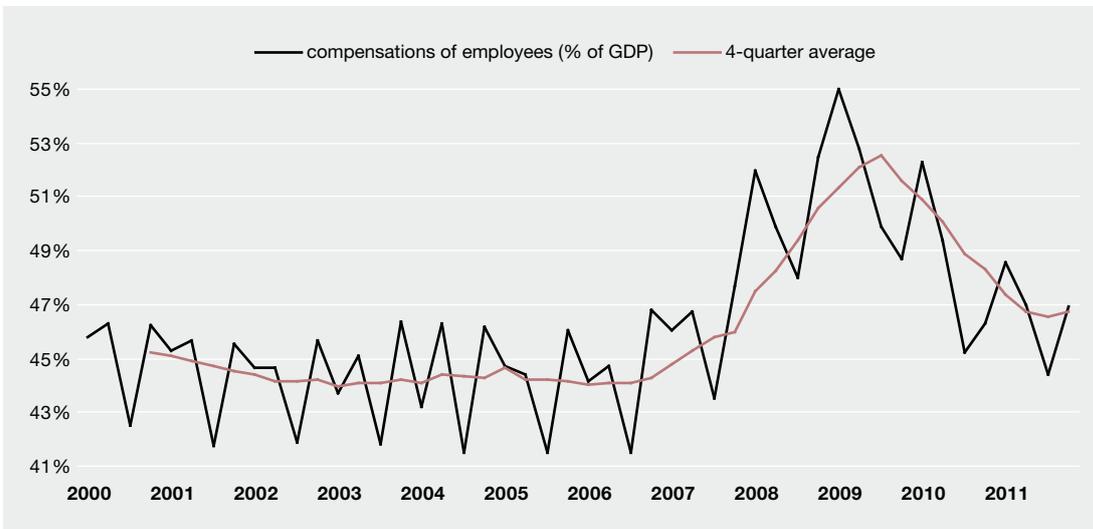
Despite rapid growth, employment grew at a slower rate than the economy in 2011 compared to the previous year. This indicates that productivity growth has slowed but is still positive and that the restructuring of production processes is under way. The increase in productivity per employee remained positive for longer, nevertheless constantly slowing throughout 2011. The increase in the number of working hours per employee enabled to reduce the under-utilisation of the existing staff; that is, to make better use of the labour force. At the same time, less new people were employed because of that.

At the macro level, wages should grow because of rising productivity. This ensures the competitiveness of the country and the balanced functioning of its economic system. Although wage pressures have lately remained relatively subdued, which has served to diminish the gap between wages and productivity that emerged before the crisis, cost pressures may nevertheless increase for the companies in the near future. This is the result of a sharp decrease in productivity that is caused, this time, by output growing slower than employment. Labour costs are fixed for at least some time and so lower productivity immediately exerts pressure on profit margins.

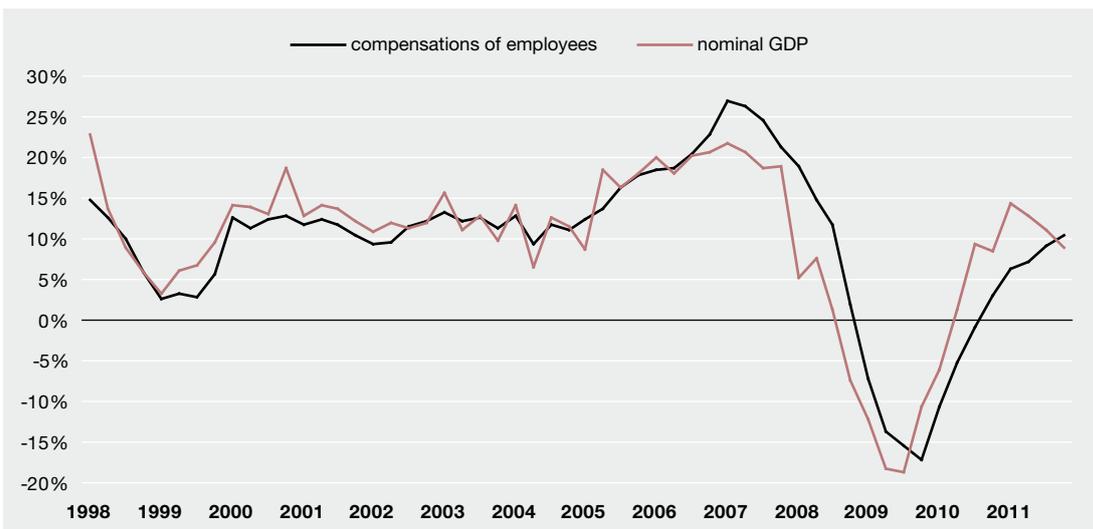
### **Unit labour costs**

In periods of economic slowdown and rapid recession, Estonia tends to see a rise in unit labour costs due to the inertia of wage fund changes and a fall in the share of wage costs once the economy recovers. The share of wage fund in GDP fell to 46.6% in 2011, which is the level recorded in 2007 and which is nearly two percentage points higher than it was in the pre-boom period (see Figure 13).

Growth in nominal GDP slowed gradually in 2011, while the increase in wage fund picked up steadily (see Figure 14). Since economic slowdown will probably continue in the coming quarters, the growth in wage fund will exceed that of the economy once again. Therefore, excessive demands for higher wages should be avoided at this point. If the number of the unemployed remains unchanged, it is impossible for the state to meet these demands, as revenue growth slows down. If wage claims are strongly imposed, they will be fulfilled by reducing the number of the employed.



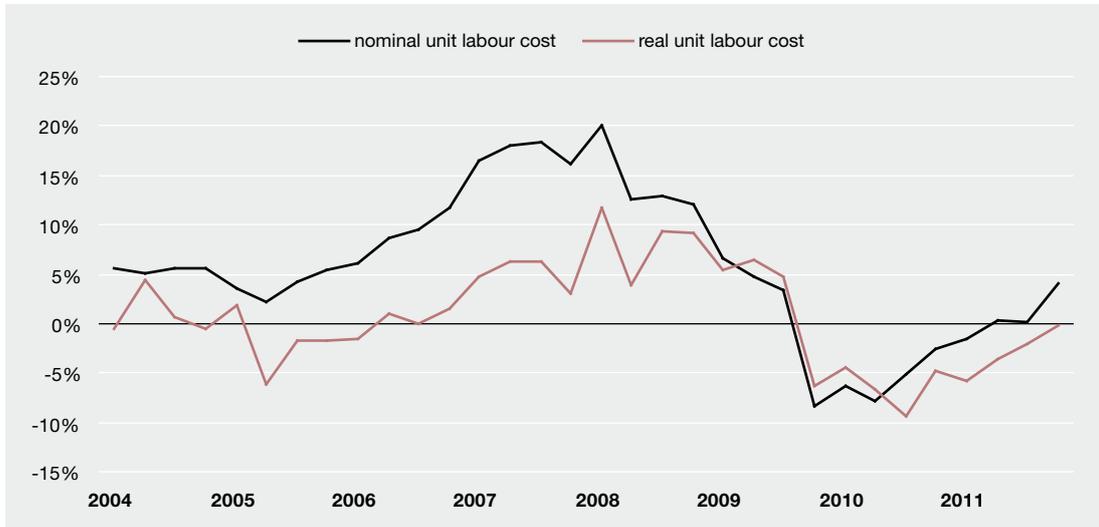
**Figure 13. Compensations of employees**



**Figure 14. Annual growth in nominal GDP and wage fund**

The real unit labour cost indicator compares the amount of expenditure per employee (mostly wages and taxes on labour) and labour productivity per employee at current prices. The growth rate of unit labour costs is positive when labour costs per salaried employee grow faster (or drop slower) than labour productivity in nominal terms. Nominal unit labour costs compare labour costs per employee with real productivity, not with productivity calculated at current prices. The aim is to analyse the inflationary pressures arising from wage growth, as companies have to increase the prices of their products in order to retain profitability when wage growth exceeds productivity.

When the economy recovered, the speed at which unit labour costs decreased started to slow down as expected. In 2010 real unit labour costs contracted by 6.4% from a year ago, while in 2011 the decline slowed to 2.8%. At the same time, the decrease in nominal unit labour costs (5.4% in 2010) was replaced by 0.9% growth (see Figure 15).



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

Major adjustments in labour market indicators, during and after the recession, were necessary and allowed the gap between wages and productivity, which had emerged during the boom, to be reduced. In 2011, real unit labour costs approached their pre-boom levels (3.1% higher than the average in 2000). If future developments are more balanced and wages grow in line with nominal productivity, real unit labour costs may maintain their present level. The shrinking nominal unit labour costs show that the inflationary pressures resulting from wage growth were still negative or close to zero in the autumn of 2011. Nominal unit labour cost growth turned positive in the fourth quarter at a rapid pace of 4.6% in annual terms. If economic and productivity growth remains modest in the near future (a decline during a couple of periods cannot be excluded), there is a high risk that nominal unit labour cost growth will pick up, exerting much more pressure on inflation than before.

## **INSTITUTIONAL DEVELOPMENTS**

### **Minimum wages**

In January 2012, minimum wages increased from 278 euros (since 2008) to 290 euros, and the hourly wage rate from 1.73 to 1.80 euros. As a result of a decline in average wages during the recession, the ratio of minimum wages to average wages remained at its highest of the past decade in 2009-2010, but still constituted only a third of the average. An increase in the ratio of minimum wages to average wages generally indicates a higher degree of wage rigidity, which inhibits job creation in the private sector, especially for low-skilled workers, and a decline in unemployment. But given that the reservation wages of the unemployed largely exceed minimum wages, the actual impact of changes in minimum wages is probably not very significant. In terms of institutional developments, it is important how minimum wages relate to unemployment benefits and income support. If starting work entails additional costs, minimum wages that barely exceed the benefits might not provide sufficient motivation to accept a job offer.

## Collective work relations

In 2009, Statistics Estonia conducted an in-depth work life survey,<sup>3</sup> which was used by the Ministry of Social Affairs to draw up the “Estonian Work Life Survey 2009”<sup>4</sup>. Based on the survey that involved Estonian companies with more than five employees and the employees of these companies, the analysis examines, among other things, collective work relations. Similarly to the results obtained in the previous surveys and the information received from the trade union umbrella organisations, 10% of the employees belonged to a trade union in 2009. Trade union movement was more widespread in the fields of transportation and storage (36% of the workers), health and social welfare (31%) and education (23%). Altogether 25% of the employees work for organisations, where a trade union exists. Looking at the presence of trade unions, it appeared that trade unions exist in 6% of the companies and organisations. The higher the number of employees, the more likely it is for a company to have a trade union. For instance, 48% of organisations with more than 250 employees have a trade union. Likewise, 40% of the local governments and state institutions have got one. The importance of collective work relations is often measured by the fact, whether or not the company has a trade union. Given that if there is no trade union in the company, a part of the trade union’s role can be fulfilled by the representative of employees, the existence of trade unions slightly underestimates the importance of collective work relations.

The main outcome of collective work relations is the collective agreement. In 2009, 6% of the companies with more than five employees had a collective agreement. According to the survey, 33% of the employees claim to be covered by collective agreements. However, in two thirds of the cases, their employers denied having a collective agreement in the organisation. Furthermore, unlike in most Western countries, it is common in Estonia that even if a collective agreement exists, it does not include a wage agreement. According to the registry,<sup>5</sup> there were 179 valid collective agreements on 6 March 2012. Only 77 of the agreements included an agreement on basic salary, covering 64,000 employees, which constitutes 11% of the domestic employment. Since the existing law foresees the automatic prolongation of the collective agreement, most of the wage agreements were, in fact, concluded years ago. The work life survey also showed that 77% of the employees believe that wage conditions should be agreed on individually, not collectively.

Agreements on minimum wage rates are especially important in education and health sectors. The last agreement on the minimum wage rate in education dates back to 18 December 2008 and led to a 9.8% rise in 2009. The economic forecast published by the Ministry of Finance during the negotiations set out a 4.1% rise in average monthly gross wages in 2009. In reality, a 5.1% decline was observed. Thus, average wages in education (in full-time terms) increased as a ratio to the overall average during the recession, but started to decrease once general wage growth recovered. The rise in public sector wages has followed private sector developments with a lag of a couple of quarters in the past. Given that private sector wage growth has been positive for six quarters, the increase in wage pressures by the time of the strikes in March 2012 was not surprising.

<sup>3</sup> [http://pub.stat.ee/px-web.2001/1\\_Databas/Social\\_life/19Worklife\\_quality/10Work\\_organisation/10Work\\_organisation.asp](http://pub.stat.ee/px-web.2001/1_Databas/Social_life/19Worklife_quality/10Work_organisation/10Work_organisation.asp)

<sup>4</sup> [http://www.sm.ee/fileadmin/meedia/Dokumentid/V2ljaanded/Toimetised/2011/toimetised\\_20113.pdf](http://www.sm.ee/fileadmin/meedia/Dokumentid/V2ljaanded/Toimetised/2011/toimetised_20113.pdf) (in Estonian only).

<sup>5</sup> <http://klak.sm.ee>.