

Eesti Pank



# **LABOUR MARKET REVIEW**

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*The labour market review by experts from Eesti Pank covers developments in the supply, demand and prices of labour in Estonia. The central bank observes the labour market for two reasons. Firstly, labour is an important production input, as a change in the supply or activity of labour can directly affect potential growth. Secondly, events in the labour market can have a major impact on inflation. Given the orientation of the euro area monetary policy towards price stability, and the openness of the Estonian economy, the economy adjusts to changes principally through the prices and volumes of production inputs. For this reason it is important for the labour market to be flexible and for wage rises to correspond to productivity growth, as otherwise the increase in production costs could lead to excessive inflation.*

## **KEY DEVELOPMENTS IN THE FIRST HALF OF 2013**

Growth in the Estonian economy in the first half of 2013 slowed in annual terms. This did not affect the labour market significantly as the slowdown was not broad-based and economic developments affect labour market indicators with a lag. Employment growth was steady despite the weak economic environment, even given the natural shrinkage of the working age population and emigration, which are not reflected in the labour market statistics for this year. The employment rate rose to near its pre-crisis level and the unemployment rate fell. This shows that the recovery in the economy has improved the lives of many people who suffered during the crisis.

Wage growth increased together with employment growth, which indicates there is an increasing shortage of labour. The unemployment rate has fallen to a level where wage pressure is increasing and the number of job-changers among new employees has increased. Companies have had to raise wages by more than the rise in productivity, which has reduced their buffers for maintaining jobs if they face any setbacks.

Unit labour costs have risen by more than 9% in the last three years, which is more than the level set in the alert mechanism report of the European Commission. The main risks linked to the rapid rise in unit labour costs are of price pressure, which is already evident in the faster rises in service prices, and a weakening in the price competitiveness of the exporting sector.

Detailed data by county from the population statistics indicate the situation in regional labour markets is much worse than before. The labour markets in some counties are affected more by the large movement of the younger working-age population to Harjumaa, the county around Tallinn, than by emigration. The relocation of manufacturing companies facing skilled labour shortages then poses a threat to other jobs in the local service sector.

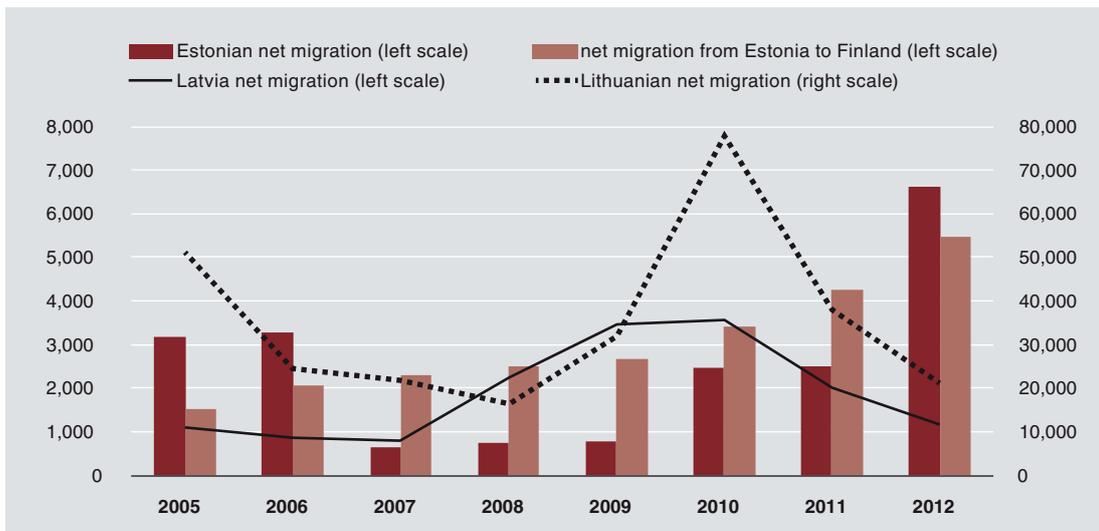
## **LABOUR DEMAND AND SUPPLY**

### **Working-age population**

Population statistics from Statistics Estonia show that there were 1,286,479 permanent residents living in Estonia at the start of 2013, of whom 975,214 were of working age. The working-age population was 1.3% lower than at the start of 2012, as emigration reduced it by 0.6% and changes in the age structure of the population and mortality pushed it down by 0.8%. Emigration statistics show that the negative migration

balance was significantly higher in 2012 than in the previous year. Emigration exceeded immigration by 2106 people in 2011, but in 2012 the difference was 5489. Net migration for 2012 is probably somewhat exaggerated as many people may have changed the data on their place of residence in the population register after the census. The increase in migration may in fact have come some years earlier, shortly after the economic crisis. This is indicated by net immigration figures from the Finnish statistical office and the sharp rise in the net migration figures for Latvia and Lithuania in 2009-2010 (see Figure 1).

**Figure 1. Net migration from the Baltic states and official Finnish statistics for net immigration from Estonia to Finland**



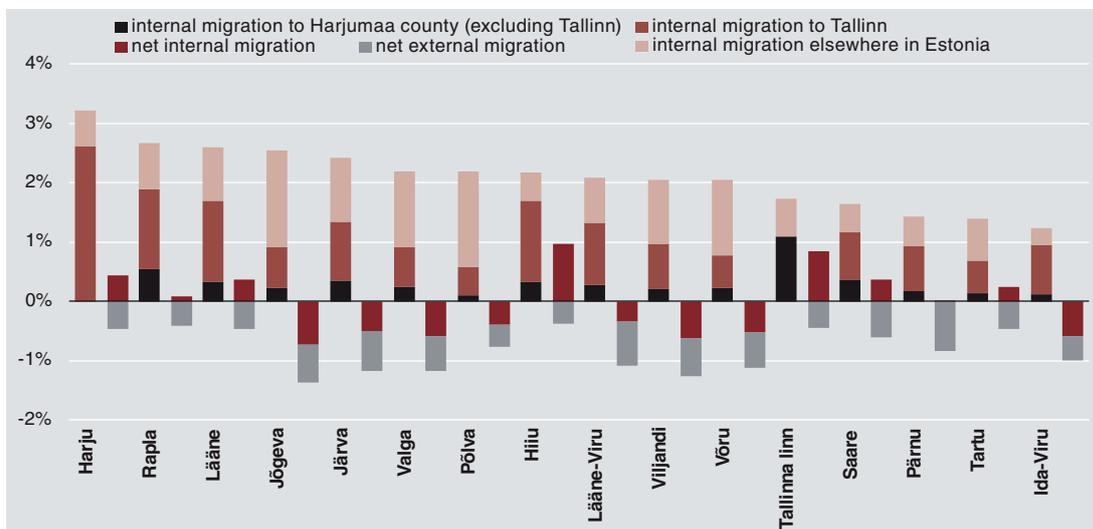
In the years 2007–2012, average immigration in the working age population was 3089 people a year. In 2012 there was a rise of 13% in immigration to 3475 people, of whom 50% were returning to their homeland having been born in Estonia. The change in net migration was caused by a sharp rise in emigration of 73% from 5180 to 8964.

The age-group that migrated the most was the 20–34 group, who made up more than half of both immigrants and emigrants. The share of women among emigrants has consistently been above 50% in the last 12 years, and has averaged 54%. The share of women among immigrants has fluctuated around 40%. This shows that women are more likely to emigrate than men, and the probability of them returning to their homeland is lower, and if this were to continue for a longer time it would have an impact on the local sex structure.

More exact data on migration and the location of the working age population within Estonia have also been released along with those on external migration. They show that the population has moved more than was predicted by earlier estimates to the two main centres of Tallinn and Tartu. The population for all the counties except Harjumaa was overestimated, with emigration a factor in this (see Figure 2).

Net internal migration for counties is high for the 20–29 age group, who are studying or entering the labour market. The main beneficiary of this migration is Tallinn, which gained 2162 young residents in 2012, equal to 3.1% of the same age group of Tallinners. Net migration of young people into Tartu county was also positive in 2012, but only by 84 people. The decline in population among this age group ranged from 0.3% in Valgamaa county to 6.1% in Viljandi.

**Figure 2. Internal and external migration by county 2012, % of population at 1 January 2012**



### Participation in the labour force and inactivity

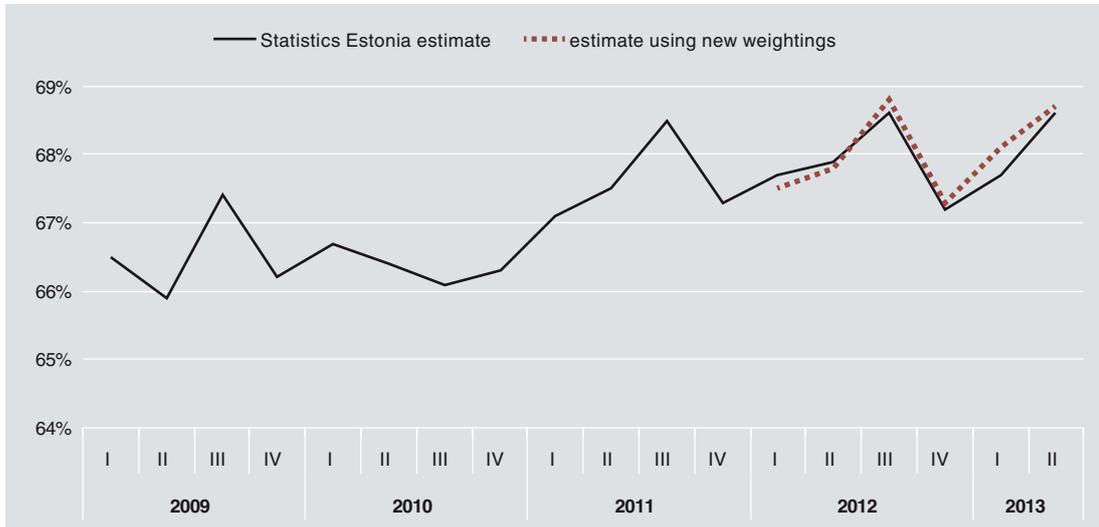
In the first half of 2013 the labour force participation rate<sup>1</sup> was high, reaching 68.5% in the first quarter and 68.7% in the second. This assessment, like the statistics for the labour market in 2013 in general, has not yet been corrected for the results of the census of 2011 or the reductions this year in migration and the working age population. The correction for the new population statistics in May 2014 will probably also change the estimate of the labour force participation rate. The participation rate will be boosted by the expected upward correction of the share of residents of Harjumaa, as the labour force participation of Harjumaa is notably higher than elsewhere in Estonia. However, the share of those aged 25–34 is lower than estimated due to emigration abroad, and this will have a negative impact on the average participation rate. Figure 3 shows the official estimate of the participation rate and the estimate calculated using corrected Estonian Labour Force Survey (LFS) weights.

The participation rate for the 15–24 age group in the first half of 2013 was 39.6%, which is 1.3 percentage points lower than in the previous year. The higher education reform that started to apply from the autumn semester of 2013 will probably start to have an impact in the near future as it will grant free higher education to more young people, but on the condition that they complete 75% of the course curriculum. The new system will encourage students to study full time as it is no longer necessary to work in order to pay for studies.

Data from the Ministry of Education and Research show that 70,000 young people were studying on a higher education course in 2012 and 11,000 young people graduated from higher education institutions. These numbers coincide to a large extent with the estimates of the LFS of numbers in tertiary education, which also includes those studying on specialised secondary courses. In the first half of the 2012–2013 academic year, 51% of these students were working and 4.2% were unemployed, which gives a student unemployment rate of 7.5%. The share of those aged 19–30 in tertiary education has remained stable at around 26% in recent years. In longer-term comparison the share of the working age

<sup>1</sup> People active in the labour market, which means those employed or looking for work as a share of the population.

**Figure 3. Labour force participation rate using official estimates from Statistics Estonia and Eesti Pank's estimates using new population weightings**



population with higher education has risen from 24% in 1997 to 31.3% in 2012. The share of people with higher education who were in the workforce in those years was 30.4% and 37.2%.

The number on maternity leave in the first half of 2013 was 22% higher than in 2012. Birth statistics show that the long-term trend for births still remains negative, but the fall in 2013 has been much slower than that which followed the crisis. The need to care for families as a reason for not participating has risen back to pre-crisis levels, as the diminished risk of men losing their jobs has probably allowed women to stay at home with their children for longer.

The number of the discouraged was low in the past half a year, averaging 7500 people. Although the number of discouraged increased by 0.7% during the year, the number probably fell when corrected for the decline in the working age population.

### Employment

For the LFS this year, Statistics Estonia is using the estimates of population numbers from 2012, which have not been corrected for migration or natural shrinkage. The official figures show that total employment in Estonia increased in the first half of 2013 by 2.4%, rising by 1.4% in the first quarter and by 3.4% in the second. However, if the growth rates are corrected to take account of the lower working age population, employment probably grew by 0.7% and 2.1%. Even with the corrected figures the growth in employment was still strong, especially given that Estonia was in recession and the economic environment was weak in Finland and Sweden, Estonia's main trading partners. Other sources like the wage survey and corporate statistics show less volatile growth in the number of waged employees than that seen in the LFS (see Figure 4). There is no optimism about recruitment of labour evident from employers in the confidence barometer of the Estonian Institute of Economic Research.

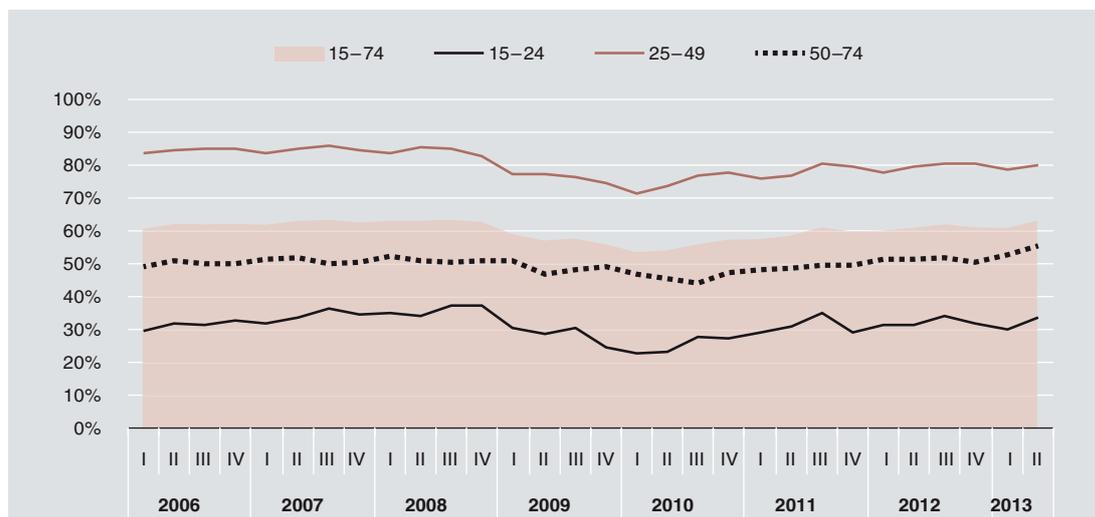
The employment rate, or the share of the working age population in employment, was 60% in the first quarter and 63% in the second. After correction for seasonal factors, the employment rate has risen above where it stood before the crisis when the economy was overheating. In times of great

**Figure 4. Growth in the number of waged workers shown in various surveys**



demographic change, the change in the employment rate is better for describing the situation in the labour market than employment growth is, as the growth could prove to be overestimated because of the reduction in the official population number. Figure 5 shows that the employment rate has grown among the older age groups. The decline of the share of young people, who have a below average employment rate, in the general population will raise the total employment rate for the whole population.

**Figure 5. Employment rate by age group**

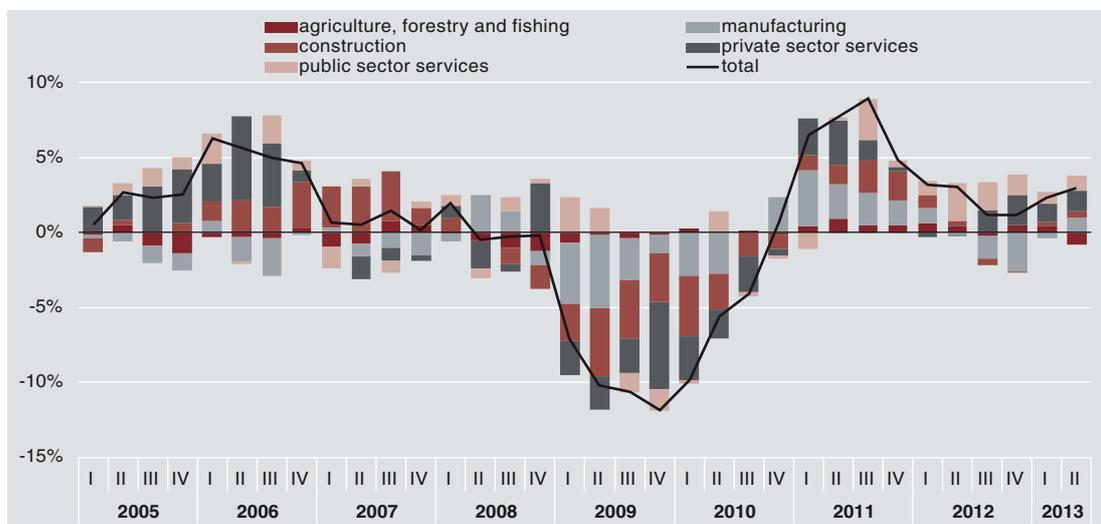


The number of Estonian residents working abroad fell in the first half of 2013 by 5% on average. Unfortunately there are no data on whether this is because of the worsening economic situation in the Nordic countries or the final emigration of workers across the border. The structure of cross-border workers was the same in the first half of 2013 as in previous years, with 67% working in Finland, and with 37% working in construction and 19% in transport and warehousing.

Data from the LFS show that employment increased in resident production units by 2.3% in the first quarter of 2013, and by 3% in the second quarter. Correcting for emigration and the natural shrinkage of the population, Eesti Pank estimates the growth rates to have been 1% and 2%.

Annual growth in employment was broad-based in the first half of 2013 and was also found in the manufacturing and service sectors (see Figure 6). More than 2.3% more people were employed in manufacturing than a year earlier according to the LFS, though the growth rate was affected by the retreat from the high comparison base from the second quarter onwards. Seasonally adjusted quarterly growth turned negative in the second quarter.

**Figure 6. Employment growth and contribution of sectors**

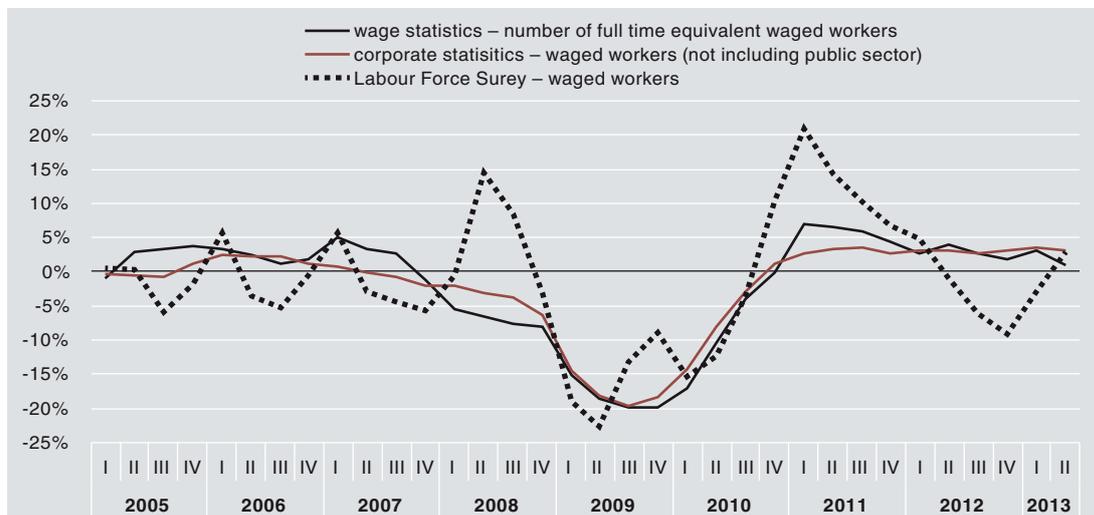


The wage survey showed that the growth in the number of full-time equivalent workers accelerated in manufacturing in the first quarter to 3.1%, but then slowed in the second quarter to 1%. The enterprise statistics survey indicates that growth in the average number of employees remained rapid in both the first and second quarters of 2013 (see Figure 7). These figures are much less volatile than the LFS estimates, possibly because of the fairly wide confidence intervals surrounding the LFS estimates by quarter and industry. The barometer survey shows that once seasonal factors are corrected for, expectations of change in employment in manufacturing have been stable at around zero since the fourth quarter of 2011. However, the number employed in manufacturing has not fallen despite modest external demand.

Although times ought to be harder for the construction industry, given the slowdown in economic growth and the ending of projects financed from sales of emissions quotas, the LFS showed employment in construction rising by 3.4% and domestic employment by 5.8%. The growth in the average number of employees in construction slowed in the first quarter according to the enterprise statistics, and in the second quarter it fell by 2.4%; wage statistics also show a fall in employment. The relatively large share of workers in the shadow economy or with undeclared wages tends to argue in favour of using estimates based on surveys, though the small size of the sample used in the LFS means those estimates probably have wide margins of error. The construction barometer shows a fall in confidence and negative trends for employment expectations.

Data from the tax and customs board reveal that the annual growth in the number receiving wages has slowed steadily in the last eighteen months. This has been caused by developments in both the private

**Figure 7. Growth in the number of waged workers in manufacturing shown in various sources**



and public sectors, with the number receiving wages from the public sector declining since May last year. The rise in June in the number receiving wages in the private sector was 1.6%, slightly higher than the 1.1% seen in May, while the number in the government sector fell by 2%, as it had in May. The dynamics of the numbers receiving wages recorded by the tax board have been markedly less volatile than the estimates of employment and numbers of employees in the LFS.

## Unemployment

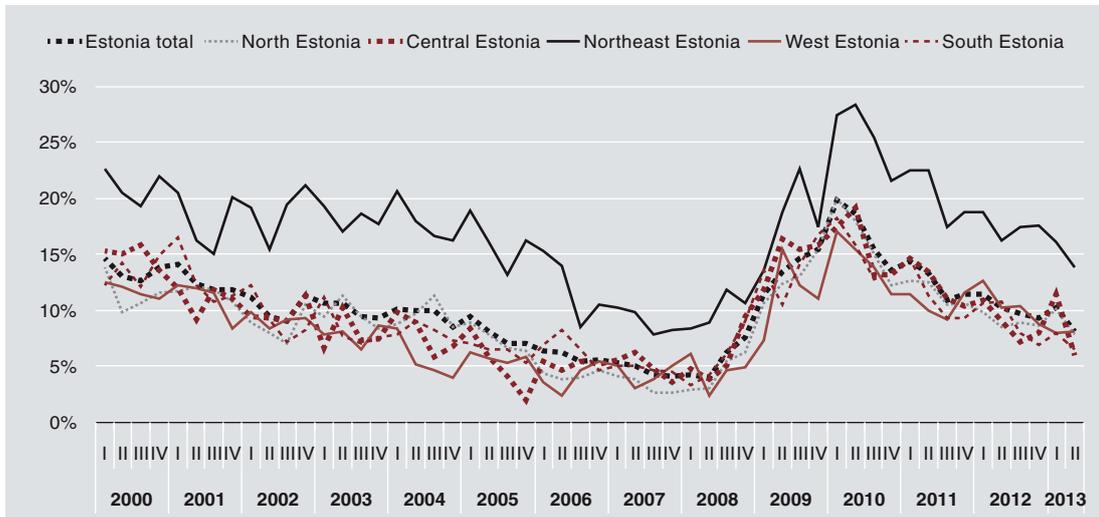
As employment grew, the unemployment rate fell to 10.2% in the first quarter and 8.1% in the second quarter. In accordance with the LFS estimate, the decline in the number of registered unemployed accelerated in the second quarter to stand at 34,767 at the end of July, or 5.3% of the population aged between 16 and retirement age.

There continues to be a large gap in the unemployment rates for Estonians and non-Estonians, though it has shrunk from the previous year. The average unemployment rate for the half-year among Estonians reached 7.4%, while among non-Estonians it reached 12.7%. The fall in unemployment occurred generally across all the regions of Estonia, though North East Estonia stood out as an exception with an unemployment rate averaging 14.9% while the rate for the rest of Estonia was 8.4% (see Figure 8). The higher unemployment rate among non-Estonians cannot be attributed only to regional problems in Ida-Virumaa, as the unemployment rate for non-Estonians is almost double that for Estonians in Harjumaa too.

During the half year the unemployment rate fell most for the 15–24 age group as the employment rate for that group increased and their activity rate fell from where it was in the first half of 2011. The unemployment rate also fell for all other age groups.

The share of the unemployed who had been out of work for over 12 months fell in the first half of 2013 to 47.4%. The peak for long-term unemployment was reached at the end of 2011 and the start of 2012, when 58.6–58.7% of the total number of unemployed had been out of work for more than a year.

**Figure 8. Unemployment by region**



Since 2011 the speed of the reduction in the number registered as unemployed has slowed constantly, though this trend ended in the second quarter of 2013. In the second and third quarters the number registered as unemployed was 13% down on the same quarters of the previous year, which was somewhat faster than the decline at the start of the year. LFS data show that 50.5% of the unemployed went to the Eesti Töötukassa unemployment insurance fund and this share has fallen in recent years. The reasons people gave most often in 2013 for not going to Eesti Töötukassa were that they could manage for themselves, which 41% claimed, or that Eesti Töötukassa did not have any suitable jobs on offer, claimed by 24%. The low level of unemployment benefit was given as a reason by less than 1%. The daily benefit rate was increased in 2012 from 2.11 euros to 3.27 euros in 2013, raising the monthly rate from 65.41 euros to 101.5. A further 28% did not use Eesti Töötukassa as they did not have the right to any unemployment insurance or benefits.

The consumer barometer has shown the household assessment of unemployment to have been positive since the start of 2013, but close to zero, meaning that the share of respondents who expect unemployment to rise is slightly larger than the share that expect it to fall.

**Box 1. Other measures of labour reserves**

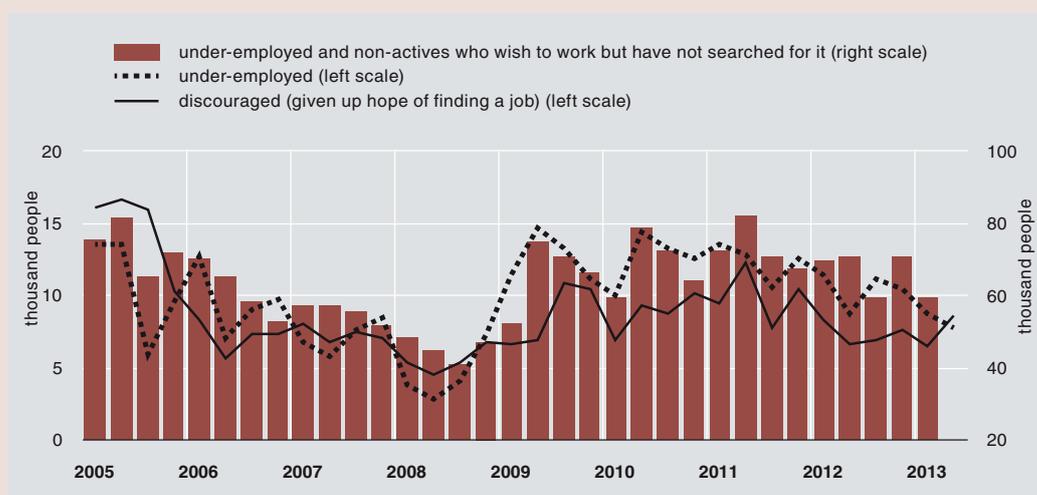
Since 2011 Eurostat has published two new harmonised indicators for underemployment in European Union countries and for describing the potential additional labour force. These indicators add to the unemployment indicator of the International Labour Organisation (ILO) by including people who are to some extent less attached to the labour market than the unemployed; they are also useful for gaining a better picture of labour resources that are not usually covered under unemployment.

Working-age people who are not working are officially classified as unemployed if they meet three conditions: 1) they must not have worked during that week; 2) they must be ready to start work within the next two weeks; and 3) they must have searched actively for work during the past four weeks or have already found a job that will start in the next three months.

Under the first condition, employment also covers part-time underemployed workers who would like to do more work and would be able to increase their labour input in the labour market if they could find the right job. In terms of labour supply, underemployment means there is an unused additional reserve of working hours. The other two conditions exclude from the active labour force those of working age who are not employed and who are either looking for work but not able to start at once or could start at once but are not actively looking for work. The first group can include students who have not yet graduated, while the second group contains those who have not looked for work for personal or family reasons. This may also include the discouraged who consider the chances of finding work hopeless. These categories do not fit with the standard definition of unemployment and so such people are not counted as part of the active labour force but are considered economically inactive. However, their desire or readiness to work is greater than with other inactive people, which is why they may be considered an additional reserve of the labour force in the economy. The new indicators thus help give a fuller picture of the supply of labour from potential reserves.

Data for the first half of 2013 show that there were 8.3 thousand part-time workers in Estonia who were underemployed, accounting for 1.3% of the labour force. The number who are underemployed has fallen by 17% over the year, but is still around double that which was recorded in 2008 before the crisis (see Figure 1B.1).

**Figure 1B.1. Under-employed and non-actives wishing to work**



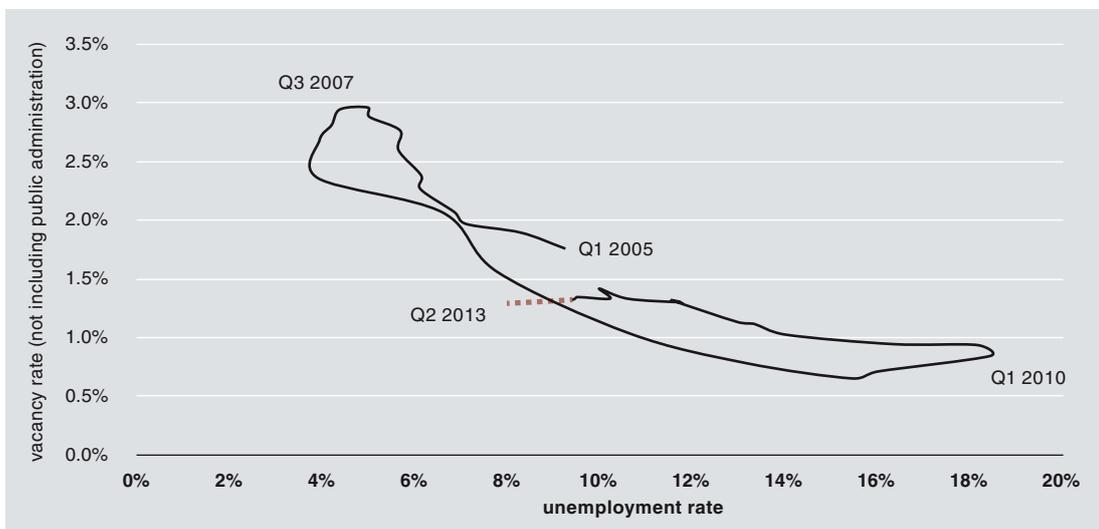
The number of inactive people who want to work but have not looked for work continued to fall this year, which indicates there has been a reduction in the available labour reserve. The number of discouraged has not changed very much. Even though the number of inactive people who want to work had fallen over the year, it still stood at around one fifth more than in 2008.

These indicators give a more complete picture of the Estonian labour market. They can explain better the changes happening in the labour market and help in observation of the strains in the labour market and the potential for reforms to increase the size of the labour force, especially in terms of active participation in the market.

## Vacancies

The job vacancy rate reached 1.3% in the first quarter of 2013 and 1.4% in the second quarter, though there is no change in the vacancy rate after adjustment for seasonal changes. The vacancy rate has declined from a year ago. There has been a long-term positive trend in the rate in manufacturing, trade and healthcare, and the vacancy rate has dropped noticeably from 2012 in construction and transport. The match between jobs and available labour is shown by the Beveridge curve, which shows the vacancy rate relative to unemployment. Developments in recent quarters have not moved the curve much from its place (see Figure 9).

**Figure 9. Beveridge curve (Q1 2005–Q2 2013)**



## Wages and labour costs

The acceleration in the growth of average gross wages in the first half of 2013 stood in direct contrast to the deceleration in economic activity. Labour costs, or the payroll as a share of GDP, increased. The real annual growth in domestic production reached 1.2% in the first half of 2013, but when the figures are adjusted seasonally and for working days, the economy shrank quarter on quarter in both the first and second quarters. The growth in average gross wages in the first half of the year accelerated to 7.4%, and in the second quarter it was as high as 8.5% (see Figure 10).

The movement of wage growth and economic growth in opposite directions can partly be explained by the typical inertia of the labour market, which sees unit labour costs start to adjust to reduced economic activity with a lag of two quarters. The continuing relatively rapid growth in GDP at current prices, which averaged 6.2% in the half year, and the acceleration in growth in total national income to 9.5% made it possible to pay higher wages funded by price rises and income from abroad, which meant that corporate profits could continue to grow.

The growth in real wages corrected for consumer price inflation accelerated in the second quarter of 2013 to 4.9%. Real wages have increased for eight consecutive quarters now and are now only 1.3% below where they were before the crisis.

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



The acceleration in wage growth in the first half of 2013 happened across the board and was driven by many factors. First, the lower part of the wage scale was raised by an increase of 10.3% in the minimum wage, the lowest level of gross wages paid to full-time workers, from 290 euros a month to 320 euros. This change had a direct impact on only 3% of wage recipients<sup>2</sup>, but as companies and organisations maintain their relative wage structure, the impact of this change comes not only to their minimum-wage employees but also to the next ranks in the wage scale. This means that the total impact of the rise in the minimum wage was probably rather larger.

Second, the new pay agreements for teachers and medical workers that had been signed after the strikes in autumn 2012 came into force in the spring. Wages have also risen rapidly in mining and the energy industry, where the average gross wage is already more than one third higher than the overall average in the economy. Mining was the industry that saw the highest rise in average wages at 20%. In several industries, notably construction and transport, workers could apply pressure in wage negotiations through being able to go to work abroad. Wage growth accelerated in transport and warehousing from 8.6% in the first quarter to 15.4% in the second, and in construction it went from 6% to 12.7%.

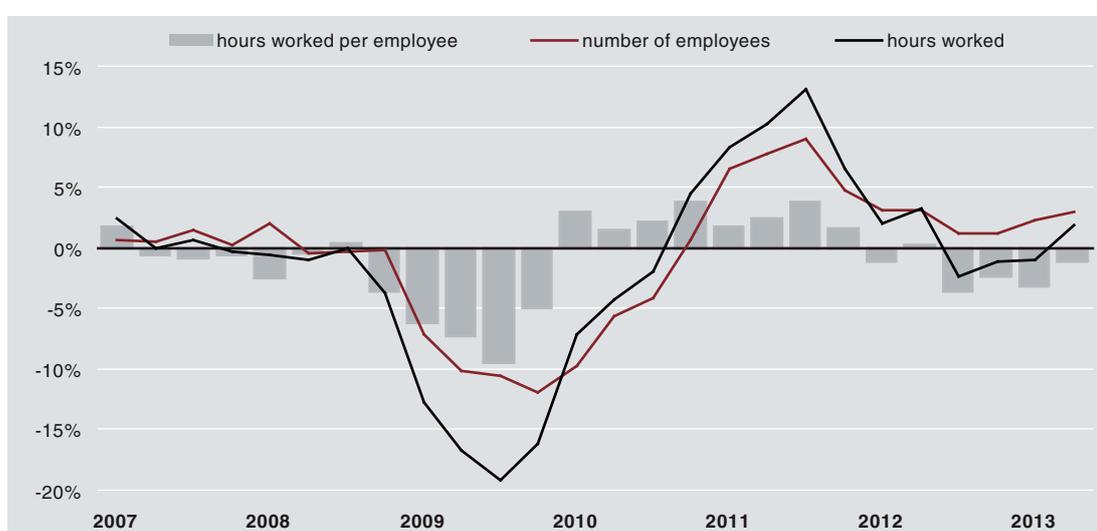
The rise of 10% in the minimum wage while average wages rose by 8.5% probably made wage distribution slightly more equitable. Heterogeneity between industries has also decreased over the year. A year ago the wages in the highest-paid industry were 2.9 times as much as the wages in the lowest-paid industry, but in the second quarter of 2013, this difference had fallen to 1.4 times. The highest gross wage continues to be in finance and insurance, where it was 1591 euros, followed by the wage in information and communication at 1579 euros and that in the energy industry at 1348 euros. Wages continued to be lowest in accommodation and catering at 589 euros, and in other service industries at 538 euros.

Companies and organisations owned in the private sector had slightly faster wage growth than those in the public sector and private companies owned by foreigners saw their wages rise most of all, by 10% in the second quarter.

<sup>2</sup> Tax board statistics calculate the number of people who received the minimum wage for at least six months during a year. In 2012, 14,914 people received the minimum wage as their total income for at least six months.

The developments in unit labour cost indicators since 2008 have been strongly affected by changes in the number of hours worked by each worker. Most of the changes that happened during the recession of 2008–2009 were cyclical in nature. The cyclical changes in the actual number of working hours per employee can cover factors like overtime during an economic boom or shortened working hours during a recession. Changes in actual working hours per employee have recently caused marked differences in the growth rates of compensation paid for each employee and each hour. Hours worked per employee in Estonia started to decline in the second half of 2012, which helped employers to hold down labour costs without cutting jobs at a time of restrained economic activity (see Figure 11).

**Figure 11. Employment, hours worked and hours worked per employee, annual growth**



Tax board data show that income declared for 2012 per physical person was on average 7% more than a year earlier, but the distribution of income continued to be very uneven. Income lower than the minimum wage was recorded on 20.5% of declarations, accounting for 2.7% of total income, while only 11.4% of declarations recorded monthly income of over 1600 euros, and these accounted for 36.3% of total income. There was a notable rise of 16.2% in the number declaring income received abroad and taxable in Estonia, and these declarations made up almost 1% of the total.

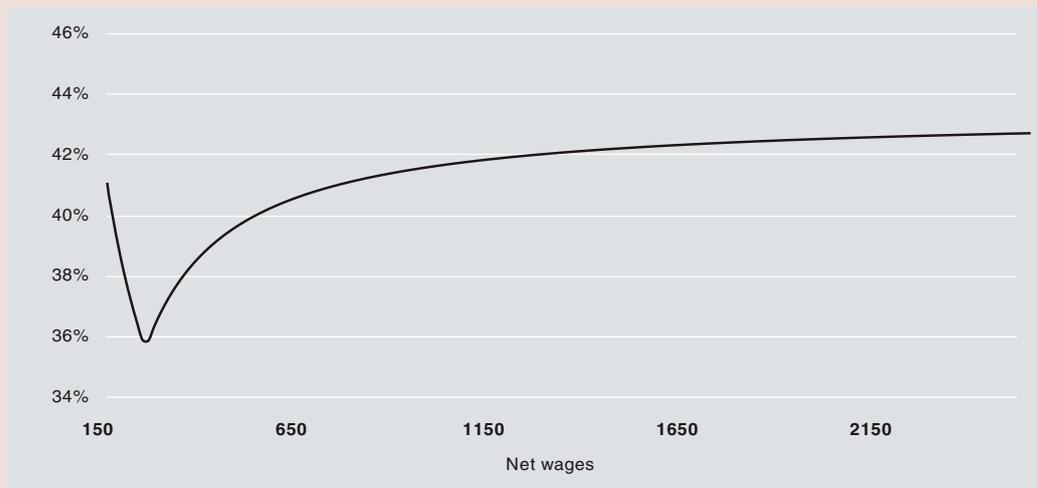
The unemployment insurance contribution fell this year from 2.8% to 2% for employees and from 1.4% to 1% for employers. The reduction of the unemployment insurance contribution increased the income of someone earning the average wage by 5.4 euros per month and the income of someone on the minimum wage by 2 euros per month. As the unemployment insurance rate was cut at the start of 2013, it can be expected that, all other things being equal, the growth in net wages will exceed that in gross wages by up to 0.7 percentage points. The gap between the growth rates for net and gross wages was reduced by a rise in the effective income tax rate. The effective income tax rate is lower for those on the lowest wages because of the non-taxable income threshold, but it rises as wages increase.

The average net wage increased 0.2 percentage points faster than the average gross wage in the first quarter of 2013 both nominally and when adjusted for inflation. The gap between the rates fell close to zero in the second quarter as the rise in the effective income tax rate caused by the relatively fast growth in wages was cancelled out by the reduction in the unemployment insurance rate at the same time.

## Box 2. The labour tax wedge

With taxes on labour, the tax wedge is the difference between what the labour costs to the employer and what the employee receives as a net wage. As wages increase, so does the tax wedge, because the tax-free minimum income level represents a smaller share of higher wages. The minimum social tax liability makes the tax wedge highest for part-time workers doing very few hours. Labour taxes are comparatively proportionate compared to those of other countries (see Figure 2B.1).

Figure 2B.1. Tax wedge for net wages, data from 2013



In 2012 Estonia was ranked 13th among the 34 countries of the OECD for the labour tax burden. The labour tax burden in Estonia is lower than in Germany or Finland, but much higher than that in the USA (see Figure 2B.2). The tax wedge for the average Estonian employee in 2012 was 40.4%, which was above the OECD average of 35.6%, but 0.9 percentage points lower than in 2000. Joint income tax returns for married couples and an additional income tax exemption that depends on the number of children mean the average tax wedge for an Estonian household with two adults and two children where only one adult is working fell from 38.2% in 2000 to 32.3% in 2012.

Figure 2B.2. Household tax wedge in various countries, OECD data



## Reservation wage of the unemployed

The reservation wage is the minimum amount for which an unemployed person is prepared to accept a job offer. All else being equal, the higher the reservation wage, the lower the chance of finding a job. The wage expectations of the unemployed rise in reaction to changes in the labour market, so that the higher wages in the economy are and the lower the number looking for work is, the higher the wage demands of those looking for work are and the better the working conditions they expect.

The wage expectations of the unemployed continued to increase comparatively quickly in the first half of 2013. Above average growth of 26.5% was seen in the reservation wage of women with higher education and of 14.8% in the reservation wage of men with secondary or professional education. Although women still hold back more than men in their wage expectations, the gender gap in the expectations of the unemployed has shrunk. In the first half of 2012, women with higher education were prepared to work for a wage that was 28% lower on average than that required by men with the same education, but this year the gap in expectations had fallen to 13% (see Table 1).

**Table 1. Reservation wage of the unemployed and growth in first half of 2013 by education level and gender**

	Resevation wage (euros)			Reservation wage growth		
	men	women	total	men	women	total
<b>Level 1 education: Up to primary and vocational education</b>	602	468	568	11.2%	14.2%	11.4%
<b>Level 2 education: Up to secondary and professional education</b>	738	529	643	14.8%	10.3%	13.1%
<b>Level 3 education: Upper secondary and higher education</b>	802	700	735	4.2%	26.5%	15.4%

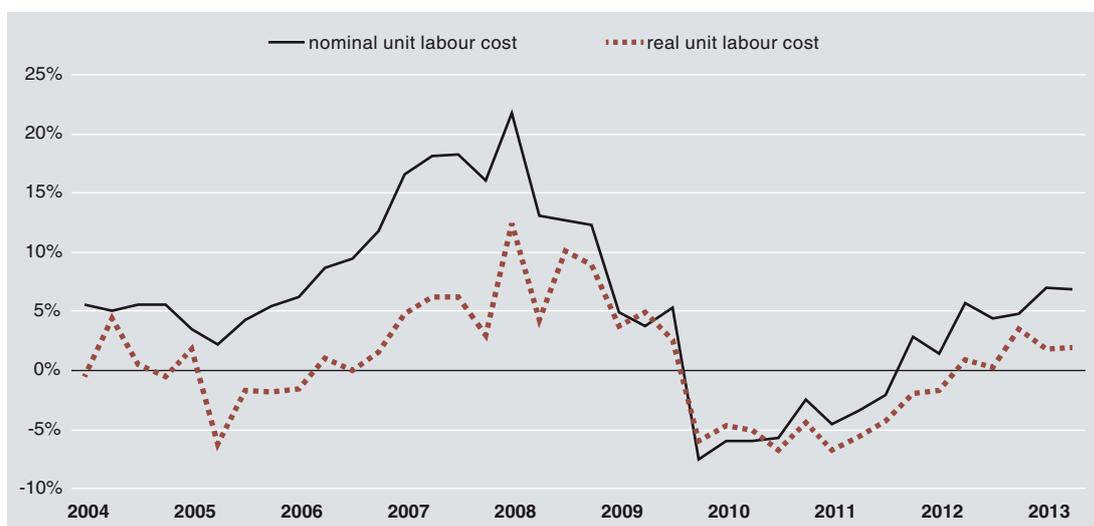
The growth in the reservation wage has been faster than the growth in average gross wages. This growth has been boosted by a rise in the number of jobs available, a rapid decrease in unemployment, and the general growth in wages in the economy. This makes it harder for employers to find new employees at the wage levels on offer and means that there is less point in creating jobs with low added value.

## Unit Labour Cost

If an employee's wage rises a lot faster than their output, it raises the share of labour costs in the final price of the goods produced, in which case unit labour costs have risen. The slowdown in economic growth and the surge in wage growth in the first half of 2013 meant that unit labour costs rose significantly (see Figure 12).

Nominal unit labour costs are calculated as a ratio of the wage costs per employee to the real output per position of employment. Growth in nominal unit labour costs accelerated from 4.1% last year to 6.0% in the first half of 2013, meaning that inflationary pressures coming from the internal labour market have strengthened. Such rapid growth in nominal unit labour costs pushed the three-year growth in unit la-

**Figure 12. Annual unit labour cost growth**



bour costs up to stand at 9% in the second quarter of 2013, which is considered in the European Union to signify that there is a danger of imbalance.

Real unit labour costs increased by 1.9% over the year, which was also faster than the average 0.7% seen last year. The growth in real unit labour costs shows the relationship between the growth in the payroll and in total nominal output at current prices. Over a longer period, the growth in the payroll has not exceeded that in nominal output by much, and the real unit labour costs of the second quarter of 2013 were only 2.3% higher than those of the end of 2003, but in the shorter term unit labour costs that rise quickly increase pressure on prices and reduce Estonia's cost competitiveness too quickly. Such macroeconomic developments are usually considered unsustainable. In the economic boom years before the crisis the Estonian economy was similarly overheated and macroeconomic imbalance had increased, with the result that the subsequent recession was deeper and the recovery from it was more of a struggle.

The prices of oil and a number of other commodities have risen more slowly, and some have even fallen in recent months, and this has helped slow the rate of growth in Estonian prices. However it has passed almost unnoticed that the annual growth rate in employee compensation has played an ever greater role in driving inflationary pressures. Wage rises unfortunately have a direct impact on the price of many services in the consumer basket, and the rate at which these prices are rising in Estonia has already picked up noticeably (see Figure 13).

Unit labour costs have risen by more than 9% in the last three years, which is more than the level set in the alert mechanism report of the European Commission. As the last Figure shows, faster growth in unit labour costs in the services sector leads directly to rises in the prices of services. The passing through of labour costs into final prices is possible with services because there is no competition from imports. It is much harder for businesses that are open to foreign trade to raise prices as higher prices reduce competitiveness and sales. It is rare that people move to a different industry when changing jobs, but even so businesses in the open and the closed sectors are competing in the same labour market. This means that if wages keep rising quickly over a longer period it forces manufacturing companies to look for an alternative location with lower production costs.

**Figure 13. Annual growth in average gross monthly wages and prices for services**

