Labour Market Review

Eesti Pank
EUROSÜSTEEM

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The labour market review by experts from Eesti Pank covers developments in the supply and demand of labour in Estonia, and the cost of it in wages. 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. As the euro area monetary policy targets price stability and the Estonian economy is very open, the economy adjusts to changes principally through the prices and volumes of production inputs. For this reason it is necessary 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.

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SUMMARY

The recession in the Estonian economy originated from the energy crisis and the start of the war in Ukraine and has now lasted for six quarters. The labour market is affected by the recession after a lag, and so employment still remained stable overall in the first half of 2023. Some data sources show a slight fall in employment in the second and third quarters. Any fall in employment has so far been small though given the depth of the recession, at least compared to what happened during previous crises. The large drop in real wages at the start of the recession has probably helped preserve jobs as companies have been able to maintain their profits. Employers may also have decided to keep their staff on the payroll in the expectation of a recovery, as long-term labour shortages make it expensive to rehire them. Real wages have however recovered strongly since the end of 2022 and unit labour costs have bounced back from their fall in the meantime to return to where they were before the crisis. If economic activity continues to stall and wages continue to rise, it must be expected in future that there will be further setbacks for employment. Confirmation of this is given by the expectations of employers for employment becoming more pessimistic and the number of jobs intermediated by Töötukassa falling.

Cyclical fluctuations in the economy affect employment in the private sector above all, and shocks in this crisis have hit hardest in industry. Employment in industry has particularly fallen in manufacturing, and especially in branches connected to wood processing. The difficulties in manufacturing and foreign trade and the fall in retail sales volumes are depressing transportation and storage, where employment is also falling. Demand for temporary labour in industry is lower than before, and this has reduced employment in administration and support activities, which is in the service sector. The disappearance of jobs in the private sector has been partially offset by growth in public-sector employment. There are increased numbers of jobs in public administration and national defence, healthcare and social care, and also in education.

The unemployment rate stayed very low for a long time, but the data from the labour force survey for the second quarter of 2023 show it rose sharply, though this was principally because of increased labour force participation by residents. Monthly data from Eurostat show the unemployment rate continued to rise in the third quarter. Seasonally adjusted registered unemployment also rose from May and combined with a fall in the number of vacancies to raise sharply the number of people registered as unemployed per vacancy. Survey data show that employers also feel that labour shortages have eased. Stronger competition for jobs should reduce upwards pressure on wages.

The growth in the average gross monthly wage accelerated in first half of 2023, but this was driven by a sharp rise in the minimum rate of pay in education, wage rises in internal security, and a new collective agreement in healthcare. Private sector wage growth slowed a little in the second quarter but was still fast given the ongoing recession, and it increased labour costs as a share of GDP. The growth in labour costs in manufacturing in Estonia has not exceeded that in most other Central and Eastern European countries including Latvia and Lithuania since before the Covid-19 pandemic. In a very general sense at least, the data do not indicate that wage costs have made Estonian manufacturing companies less competitive than companies in those countries.

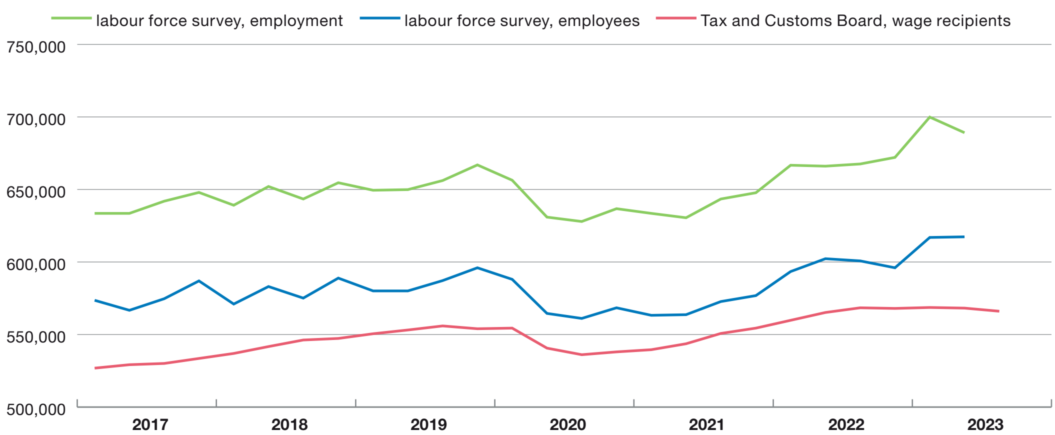
DEMAND FOR LABOUR

EMPLOYMENT

The economy has been in recession for some time now, but employment in Estonia in the first half of 2023 and the start of the third quarter remained at a relatively high level in historical comparison. Things have deteriorated from quarter to quarter though, and the latest data point to a small fall in employment (see Figure 1). Data from the labour force survey show that the number of people in employment in Estonian businesses and institutions was 5% higher in the first quarter of 2023 than a year previously, and 3.4% higher in the second quarter. The figure for the first quarter was affected by a smaller estimate than usual of the number of residents of Estonia working abroad. The employment of residents of Estonia regardless of where their job is located increased by 3.2% in each of the two quarters.

It should be noted with the estimates of the labour force survey that the results of that survey are extrapolated from the number of residents of Estonia of working age on 1 January each year. If the population increases during the year, as it did in 2022, then the survey underestimates the numbers of people in employment, unemployed and inactive in the second half of the year. The way the sample is constructed means that people who have recently moved to live in Estonia are less likely to be surveyed than those who have been considered residents of Estonia for at least two consecutive years. This means that the refugees from Ukraine who have a higher probability of being unemployed and a lower employment rate are entering the survey sample gradually and the employment and unemployment rates estimated from the sample, which are then extrapolated to all working age people, reflect more the labour market performance of people who have lived for longer in Estonia.

Figure 1. Employment in Estonia in different data sources, seasonally adjusted



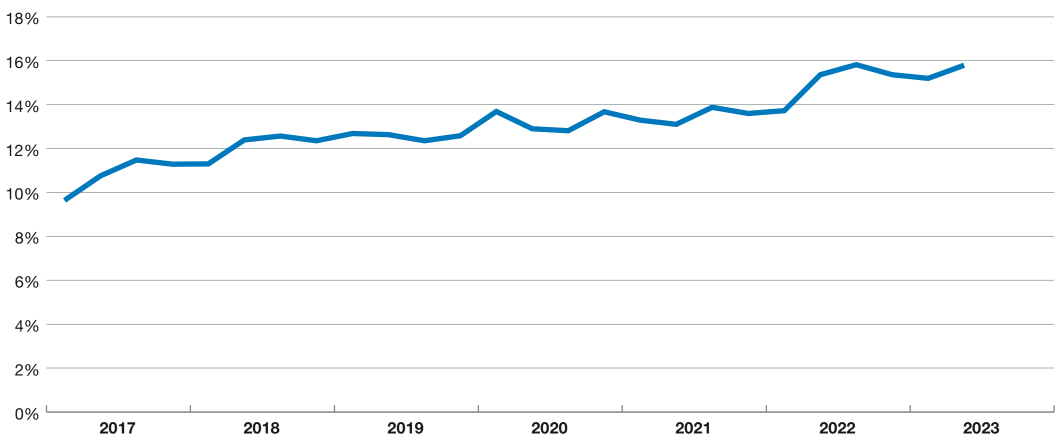
Sources: Statistics Estonia, Tax and Customs Board, Eesti Pank calculations

The estimates of employment in the labour force survey can be compared with the numbers of employment relationships and recipients of declared wages from register data, as these are not affected by issues that arise from accounting for migration or statistical measurement error. The estimates from the survey and the register data for employment trends in the longer term are in agreement, as all sources show that there were some 2% more people employed in the first half of 2023 than there were in 2019. The register data show a more pessimistic picture for 2023 though. Data from the Tax and Customs Board show that the number of people receiving a declared wage was up by 1.6% in first quarter and by 0.5% in the second, but it fell by 0.4% in the third quarter of 2023. Data from the employment register released by Statistics Estonia indicate that there were 0.8% fewer employment relationships than there were a year earlier in the second quarter, and that the decline had worsened to 1.5% in the third quarter.

Employment has so far fallen by less than it did in previous crises given the extent of the recession. The number of people receiving a declared wage in the private sector fell from its pre-crisis peak to its lowest point at about the same rate as GDP in both the financial crisis of 2008-2009 and the pandemic. Employment in the private sector peaked during the episode of the energy crisis and the war in the third quarter of 2022, and it had fallen by 0.8% by the start of the third quarter of 2023, while GDP at constant prices had fallen by 4.1% at the same time. There are several factors that explain why the fall was smaller. The first is that labour shortages were biting quite hard in the Estonian labour market before the crisis, and some of those who lost their job found employment at companies that had not seen demand for their products and services decline. Unlike in previous crises, inflation has been high and so value added at current prices has not fallen over the past six months, but has actually risen by as much as 13.6%. Spending by companies on labour costs grew more slowly throughout 2022 than value added at current prices, which supported corporate profitability and reduced the need to cut jobs rapidly to save on costs.

Most of the increase in employment in 2022 occurred because the number of employees working part-time rose, and the growth in part-time work was also faster than that in full-time work in the first half of 2023 (see Figure 2). The share of those in employment in Estonia working part-time has been trending upwards for a long time now, which is in line with the growth in labour force participation and the increased flexibility of employers. The increase in part-time work and the level of participation has probably been encouraged by social insurance programmes like disability insurance, parental benefits becoming more supportive of employment, and a steady rise in the retirement age. Those working part-time are most commonly women, young people and older workers, and few of them say they would like to work more hours. The share of people underemployed has remained small, and was around 1.2% of all those in employment in the first half of 2023.

Figure 2. Share of employment that is part-time, seasonally adjusted



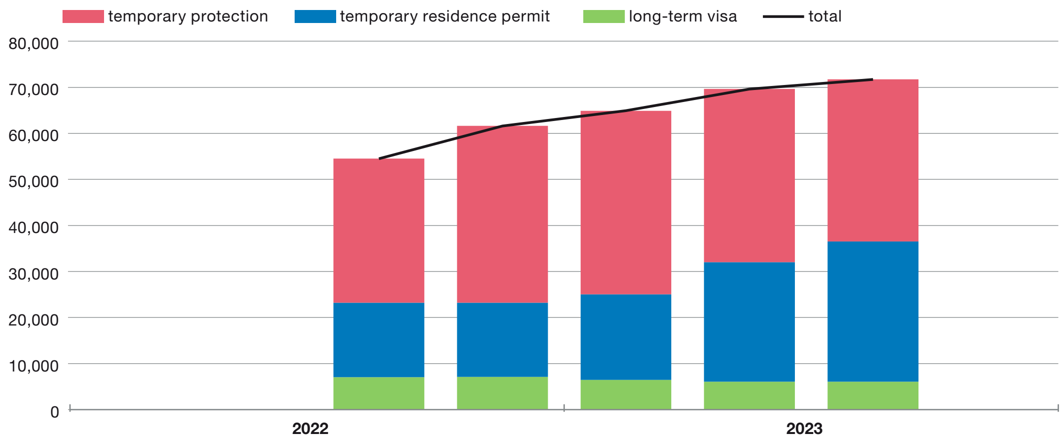
Sources: Statistics Estonia, Eesti Pank calculations

Employment was also higher this year than a year earlier because of the refugees from the war in Ukraine who had entered the Estonian labour market. The number of people receiving temporary protection in Estonia has started to fall in 2023, but the number of Ukrainian citizens in the Estonian population register continues to rise. This is primarily because some of those who were earlier in Estonia under temporary protection have received a temporary residence permit (see Figure 3).

The flash statistics from Statistics Estonia show that around 12,200 people under temporary protection were in employment as at 17 September, which is 4300 more than a year earlier, or about half as many again. The data are incomplete but it is fairly clear that employment among the refugees has increased over time and unemployment has fallen (see Figure 4). The differences between them and local residents are still quite wide though.

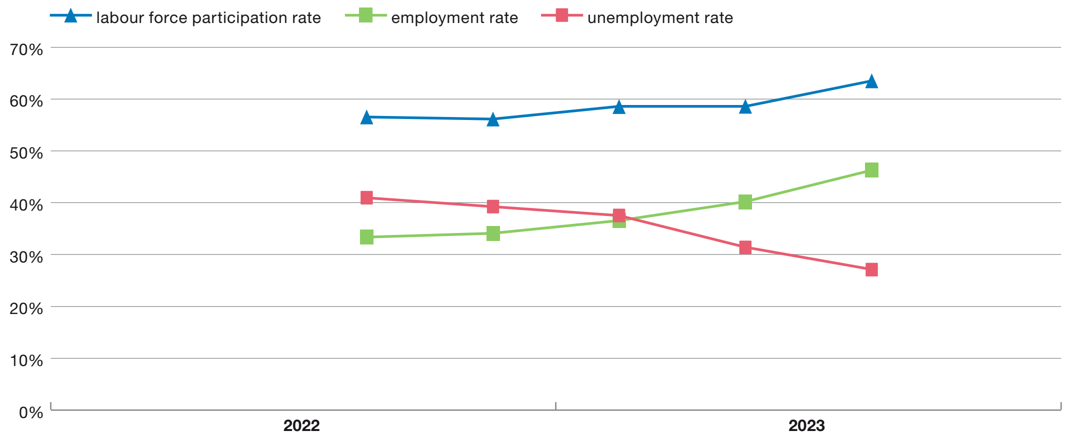
The employment rate for residents aged 15-74 was 0.4% higher in the first half of 2023 than a year earlier at 69.8% (see Figure 5). The employment rate for women was clearly higher than it was before

Figure 3. Ukrainian citizens in Estonia



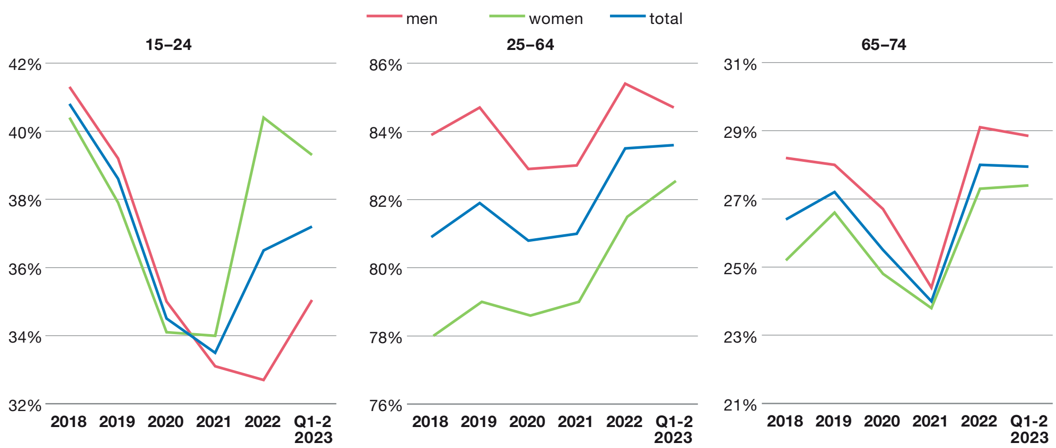
Sources: Ministry of Social Affairs, Statistics Estonia, Eesti Pank calculations

Figure 4. Labour market status of recipients of temporary protection aged 15–74



Sources: Ministry of Social Affairs, Statistics Estonia, Eesti Pank calculations

Figure 5. Employment rate by gender and age group

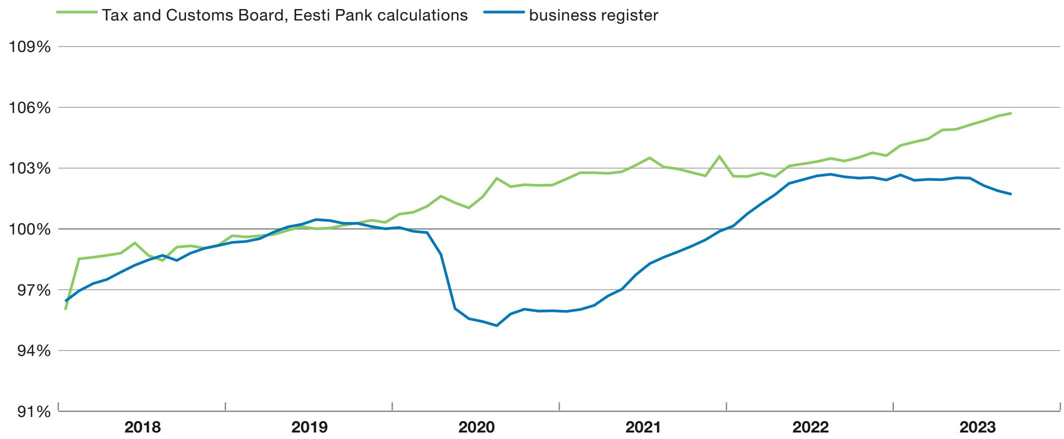


Sources: Statistics Estonia, Eesti Pank calculations

the pandemic, while that for men has not yet recovered. The employment rate for women rose largely because of women in their middle working years. This is partly because the system for compensating parental leave has become more flexible, and partly because demand for labour in the service sector has grown a long way. The employment rate for young people is lower than it was before the pandemic, but this may be due to changes in the age structure as the share of young people aged 15-19 who are active in the labour market is very small since most of them are in education, and labour market activity increases rapidly from the age of 20.

The effect of the recession started to be felt in the first half of 2023 in employment in the private sector, while several data sources indicated that employment was increasing in the public sector at the same time. This is largely to be expected because value added declines most in the private sector in difficult times, while public sector institutions become a more attractive employer and they succeed in filling jobs that had earlier been left vacant. An average of 100,159 people were receiving a declared wage in the first half of the year from institutions in the government register of institutions, and that number was 1.8% or 1730 higher than a year previously. The growth continued at a similar rate in the first months of the third quarter. The number of contracts with civil servants or senior civil servants in the register of employees increased by 1.3%. The majority of institutions in the government sector are in education, healthcare or public administration. The number of people receiving a wage in education or public administration increased by an average of 1.8% in the first half of the year. The flash estimate from Statistics Estonia shows the total number of employment contracts in public administration and education rose by 2.3%, while the labour mobility survey puts the increase at 1.6%. The number of people declared as receiving a wage in healthcare rose by 2.3%, but this unfortunately does not distinguish between employment in private healthcare and in the public sector. Data from the National Institute for Health Development for 2022 show that 30% of healthcare employees were working in private sector companies.

Figure 6. Recipients of declared wages in the private and public sectors, seasonally adjusted, 2019 = 100%

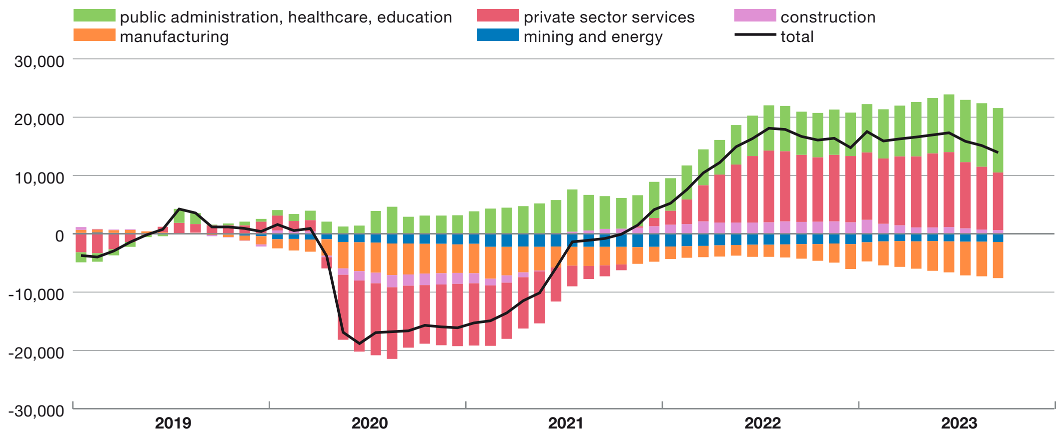


Sources: Tax and Customs Board, Eesti Pank calculations

The number declared as receiving a wage in the private sector stopped rising in the third quarter of 2022 as the economic climate deteriorated. This number remained quite stable overall in the first half of 2023, but it began to turn downwards in the start of the third quarter. The downturn in the economy was felt most in the industrial sector until the middle of 2023, but employment started to fall in July and August in private sector services as well (see Figure 7).

Data from the Tax and Customs Board show that employment in the third quarter of 2023 was below its peak of the past two years and trending downwards in quite a few sectors. There were around 3500 fewer people, or 3.6% fewer, receiving a wage in manufacturing in the third quarter than a year earlier and there is a clear downward trend in employment in transportation and storage. The performance of these sectors depends directly on foreign demand and foreign trade. The wood sector is showing

Figure 7. Recipients of declared wages, change over 2019 average, seasonally adjusted



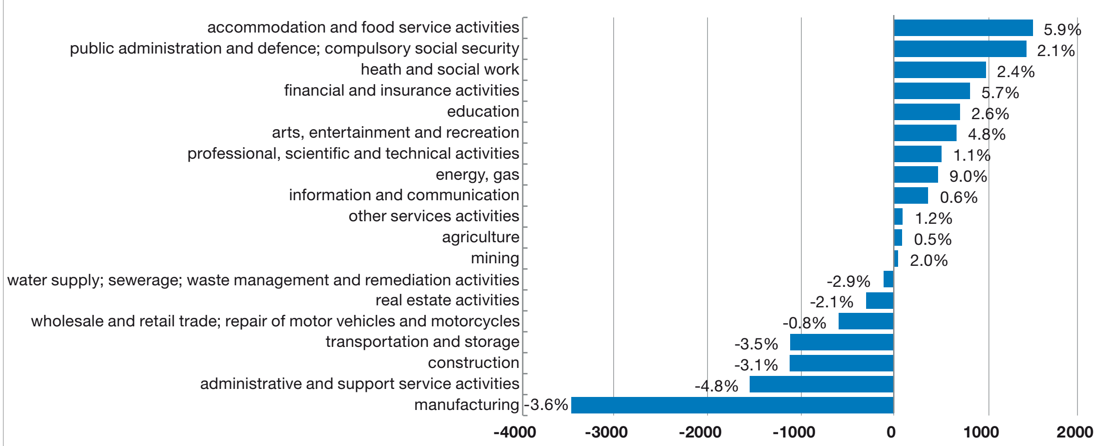
Sources: Tax and Customs Board, Eesti Pank calculations

particular weakness among the branches of manufacturing as the total number receiving a wage in wood processing and production of wood and cork products, and in furniture production is around a tenth or about 2400 people lower than a year earlier. The enterprise statistics show the fall in the first half of 2023 was about the same size as that in the previous year at 11% or 2800 employees.

Employment has also fallen a long way in administrative and support activities, where there were 1500, or 4.8%, fewer people receiving a wage (see Figure 8). Employment fell most in this sector in the branch that covers temporary employees, though the enterprise statistics also show a fall in employment in office management. Demand for temporary employees may have been lower because of the fall in demand for employment in manufacturing.

Uncertain circumstances and rising interest rates reduced activity in real estate, which then reduced the demand for labour in real estate activities and construction, especially in construction of buildings. The number of employees in retail trade peaked in August 2022 and has fallen by almost 1% since then, which is in line with the fall in retail sales volumes. As well as growing in the majority of public sector services, employment grew in accommodation and catering as it continued to recover from the pandemic and in the financial sector as profitability increased. The cost of financing is high and that causes difficulties for startup companies in information and communications, but employment in this sector overall has not fallen.

Figure 8. Yearly change in the number of recipients of declared wages by sector, Q3 2023

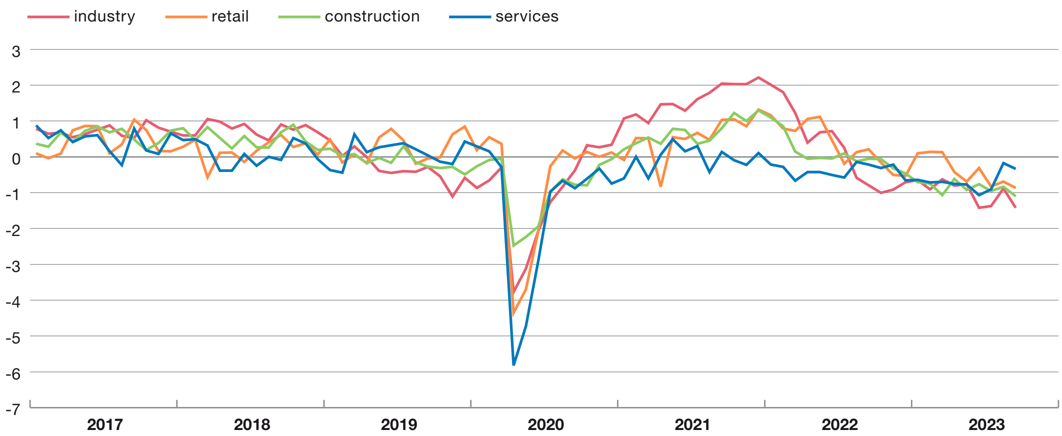


Sources: Tax and Customs Board, Eesti Pank calculations

THE OUTLOOK FOR EMPLOYMENT

Employers were pessimistic throughout 2023 about the future track of employment, as the share of employers expecting employment to fall exceeded the share expecting it to rise, and some indication of improvement was only apparent in the services sector in the third quarter (see Figure 9). The expectations of employers for employment in the sectors surveyed other than services were below their long-term average level by one standard deviation.

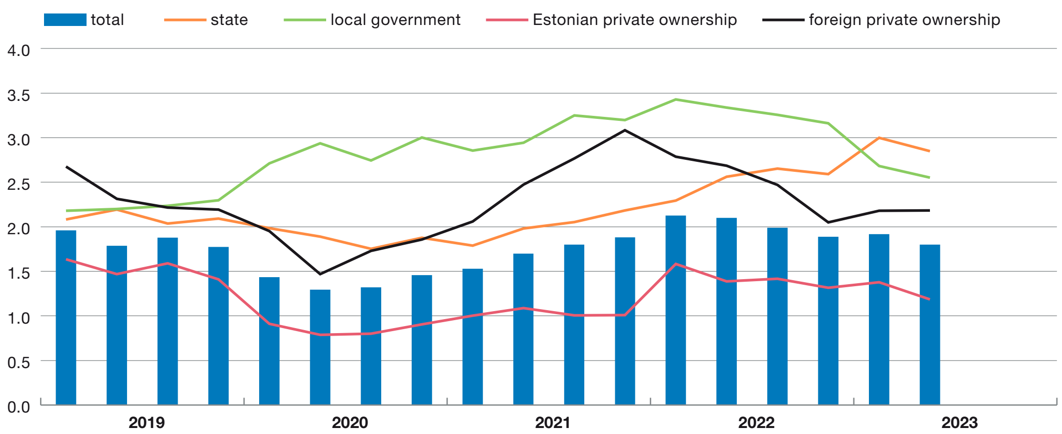
Figure 9. Employment expectations, standardised



Sources: European Commission, Eesti Pank calculations

The survey by Statistics Estonia of vacancies and the labour mobility survey found the number of vacancies continued to fall in first half of 2023, though overall it remained at around same level as before the pandemic, primarily because of the public sector (see Figure 10). The decline was broad across companies and institutions by type of ownership, with the only exception being a continued rise in the vacancy rate in the state administered sector. The vacancy rate did not fall very far in companies in Estonian ownership, but it remained below where it was in 2019. The sector with the highest vacancy rate was public administration and social insurance, where the vacancy rate passed that of information and communications, which has been high for a long time. The vacancy rates fell in the first half of 2023 in manufacturing, retail, and transportation and storage.

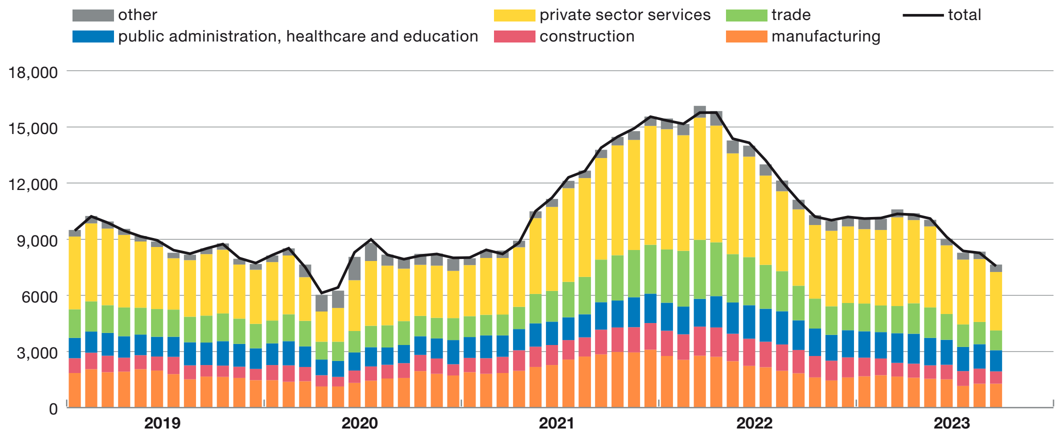
Figure 10. Vacancy rate by type of employer, seasonally adjusted



Sources: Statistics Estonia, Eesti Pank calculations

The most up-to-date information on vacancies comes from the database of Töötukassa, as a very large proportion of vacant jobs are advertised there even though it is not compulsory to do so. The seasonally adjusted number of active job advertisements was stable in the first half of 2023, and it fell in the summer months. The sectors mainly responsible for this were manufacturing and administrative and support activities (see Figure 11).

Figure 11. Number of vacancies in each month, seasonally adjusted

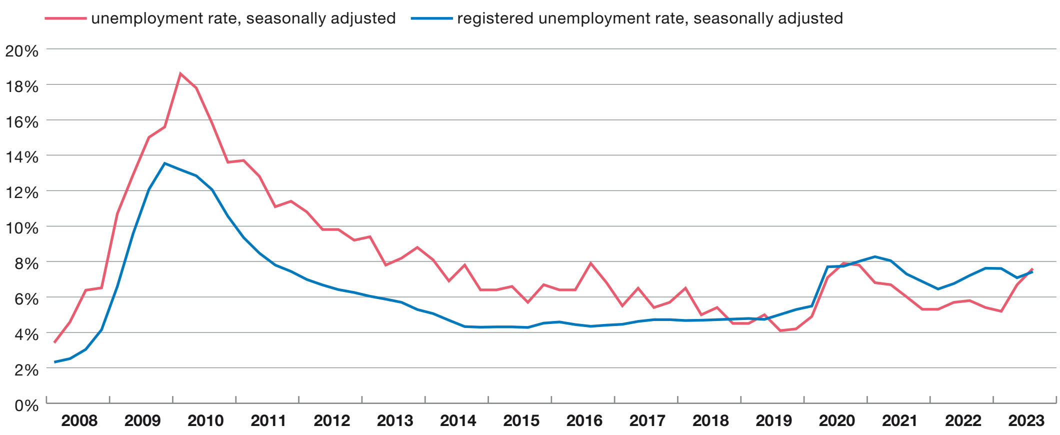


Sources: Töötukassa, Eesti Pank calculations

UNEMPLOYMENT

The unemployment rate, which is the number of people unemployed as a ratio to the economically active population, was found by the labour force survey to have risen during the first three quarters of 2023, as it was 5.3% in the first quarter and 6.7% in the second quarter, while monthly statistics from Eurostat put it at 7.3% in the third quarter (see Figure 12). The number of people employed rose equally fast, as there were around 40,000 people unemployed at the start of the year but 50,000 in the second quarter and 55,000 in the third. The good news is that the number of people unemployed did not rise because employment fell, but rather because labour force participation increased. Unfortunately companies and institutions proved unable to offer sufficient job opportunities to the increased number of participants in the labour market.

Figure 12. Unemployment

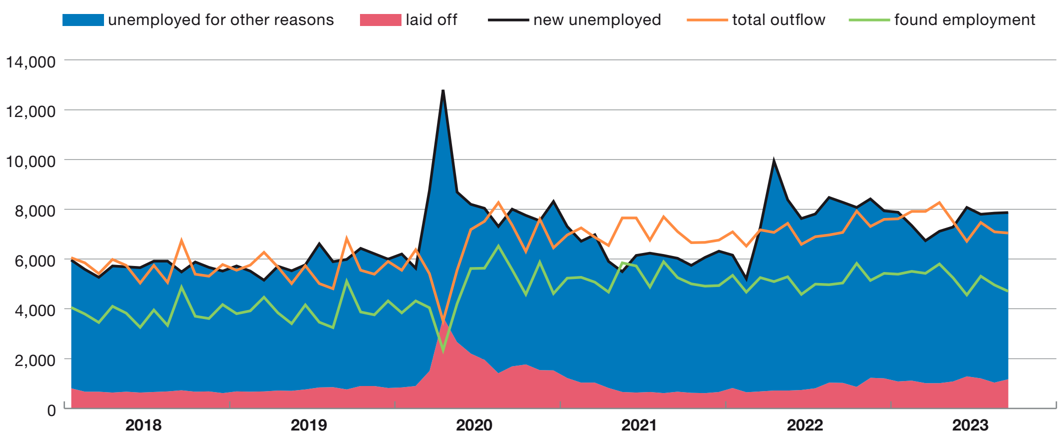


Sources: Statistics Estonia, Töötukassa, Eesti Pank calculations

The gap that first opened during the pandemic between the estimate of the unemployment rate found from the labour force survey and the registered unemployment rate narrowed in the third quarter of 2023 (see Figure 12). Data from Töötukassa show that unemployment started falling after the pandemic later than suggested by the survey, and only after the start of the war in Ukraine, and that registered unemployment was increased by refugees from Ukraine entering the labour market. The number of refugees in the Töötukassa register peaked in January 2023 at around 6400 people, but by September it had fallen back to around 4300. The reasons for this include smaller inflows of refugees than before and people finding jobs, while support ended for those who had registered as unemployed at the start of the war, and a lot of refugees have now been given temporary residence permits instead of the status of temporary protection and so the Töötukassa data no longer show them as jobseekers with temporary protection. The number registered as unemployed fell in the first half of 2023, unlike the estimated number unemployed from the labour force survey, and it has remained close to 50,000 since May. This represents a seasonally adjusted increase though, as unemployment usually falls in the summer months because of seasonal work.

The outflow from registered unemployment increased from the middle of 2022 to the middle of 2023 as people found work and for other reasons. Things also improved in the first half of 2023 as the inflow of newly unemployed was smaller. More people exiting unemployment and fewer people registering as newly unemployed together reduced the number registered as unemployed. These trends probably changed in the third quarter of 2023 though, when the seasonally adjusted number of people registered as unemployed rose at the same time that the number finding jobs fell (see Figure 13). People made redundant from their previous job were among those added to the newly unemployed in 2023, as a little under 1100 a month on average were registered, which was 40% more than in 2016-2019 and 43% more than in 2022.

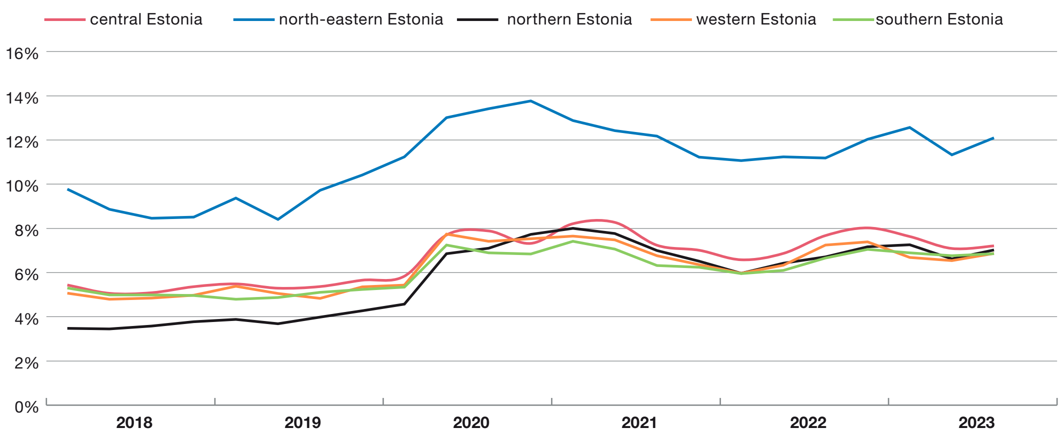
Figure 13. Registered unemployment flows, seasonally adjusted



Sources: Töötukassa, Eesti Pank

Ida-Virumaa was the region where registered unemployment remained notably higher than anywhere else in Estonia (see Figure 14). The seasonally adjusted registered unemployment rate fell in all regions in the first half of the year and rose a little in the third quarter.

Figure 14. Registered unemployment rate by region, seasonally adjusted

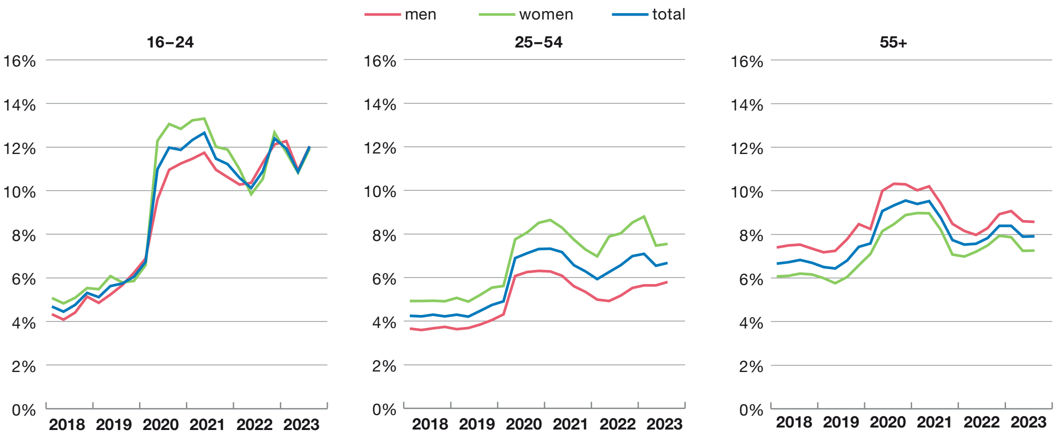


Sources: Töötukassa, Statistics Estonia, Eesti Pank calculations

The labour force survey shows the unemployment rate for men is usually higher than that for women, but the unemployment rate for women rose sharply in the second quarter of 2023 from 5.1% a year earlier to 7.1%, while the rate for men fell from 6.6% to 6.3%. The unemployment rate for women rose because labour force participation was higher but the employment rate was unchanged, while the employment rate for men rose. The data in the Eurostat database show the unemployment rates for both men and women continued to rise at the same rate in the third quarter. The registered unemployment rate is generally higher for women, as women are more inclined and more motivated to register as unemployed (see Figure 15). The largest part of the fall in registered unemployment in the first half of 2023 came from a fall in unemployment among women in their middle working years, which in turn came from a smaller number of refugees registering as unemployed.

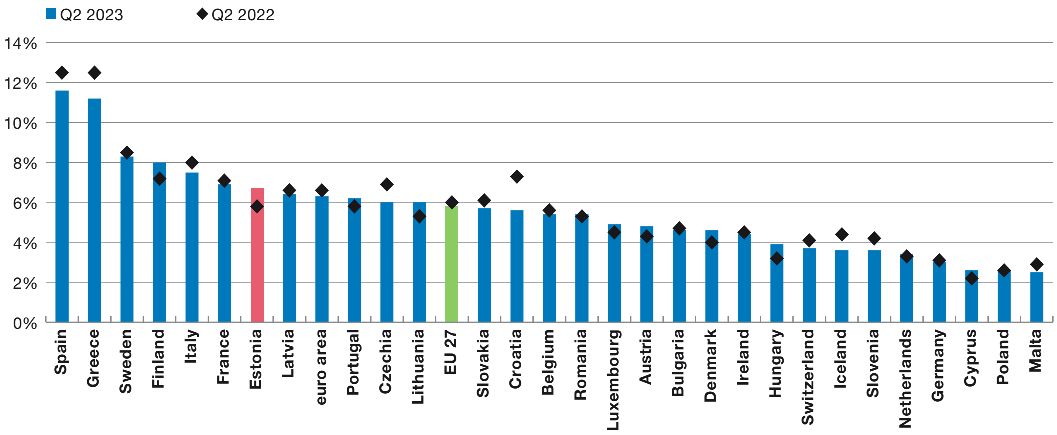
The unemployment rate rose between the start of the energy crisis and the war and the second quarter of 2023 in 11 European countries out of 31, and the largest rise among them was in Estonia at 0.9 percentage point. Unemployment also increased in Finland and Lithuania. It fell however in countries where the tourism sector plays a large part in the economy, such as Croatia, Greece and Spain (see Figure 16).

Figure 15. Registered unemployment rate by gender and age group



Sources: Statistics Estonia, Töötukassa, Eesti Pank calculations

Figure 16. Unemployment rate for 15–74 year olds in Europe, seasonally adjusted



Source: Eurostat

Box 1: The natural rate of unemployment in Estonia

The natural rate of unemployment is the level of unemployment where inflation is stable. Is often thought of as the equilibrium rate of unemployment, and if unemployment falls below it then wages start to rise and inflation to accelerate. This makes the natural rate of unemployment one of the key indicators that central banks use in setting monetary policy. Eesti Pank recently published a research paper *The natural rate of unemployment in Estonia: empirical determinants and a new semi-structural model*[1] that seeks to explain the structural factors that may define the natural rate of unemployment in Estonia and to model the natural rate of unemployment by taking account of those factors.

Researching the natural rate of unemployment is difficult because it cannot be measured like the ordinary rate of unemployment, but only indirectly estimated. It is a rate that varies between countries and that can also change over time. Evidently, the lower the natural rate of unemployment,

1 https://www.eestipank.ee/en/publications/working-papers/2023/62023-dmitry-kulikov-nicolas-reigl-natural-rate-unemployment-estonia-empirical-determinants-and-new

the better it is for society. Earlier research has shown that the natural rate of unemployment can be lowered using active labour market policy measures that help to match the available labour and jobs. An example of an active measure would be retraining for the unemployed. The natural rate of unemployment is raised by unemployment benefits and taxation of labour that reduce the financial advantage of working over being unemployed. Large macroeconomic shocks of the sort that affect the housing market raise the natural rate of unemployment as a large number of workers with specific skills and qualifications lose their jobs and find it hard to find new ones. Various policy measures that are designed to encourage growth and development in the economy can bring the natural rate of unemployment down though. Earlier research has surprisingly not found any significant relationship between the natural rate of unemployment and immigration policy or the short-term supply of foreign labour.

The recent paper from Eesti Pank, which looked at data from 31 OECD states from the first quarter of 1998 to the fourth quarter of 2019, agreed with the analysis of earlier research work that the natural rate of unemployment is affected by active labour market policies and by the share of employment that is in the construction industry. It further found that the tax burden on labour and growth in capital also affect the natural rate of unemployment, but that effect was not statistically significant in all of the models estimated.

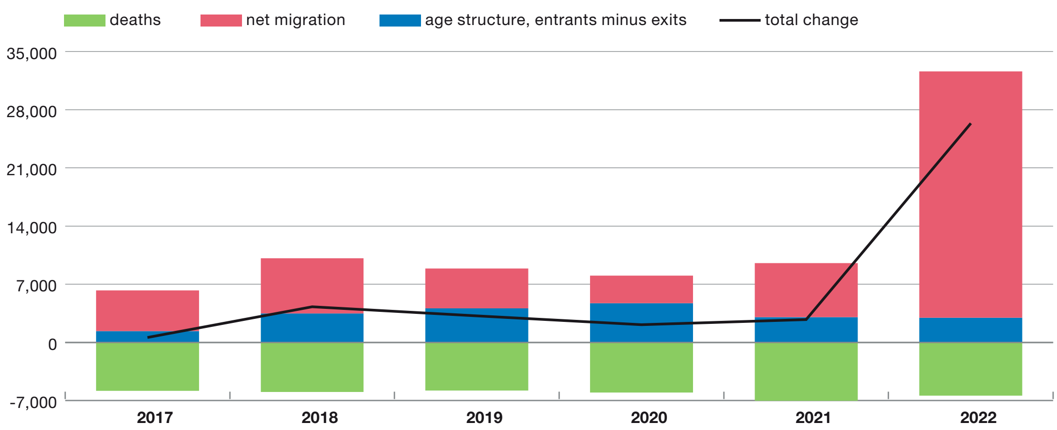
Factors that affect the natural rate of unemployment were found from earlier research work and analysis of panel data, and the second part of the analysis used those factors to create a set of semi-structural models for natural unemployment in Estonia. Those models connected indicators of the state of the labour market such as growth in unit labour costs or the output gap with the gap between unemployment and the natural unemployment rate and combinations of structural factors. Unemployment was measured in two ways using the rate from the labour force survey and registered unemployment. The results showed that in most cases the structural factors did not have a statistically significant impact in the models estimated, but a combination of indicators for active labour market measures, the minimum wage as a ratio to the average wage, and the indicator for the share of the construction industry did have such an impact. Overall the impact on the natural rate of unemployment of the various factors considered was quite mild during the time period studied, though it made the estimate of the natural rate a little less volatile over the economic cycle. Using the various different measures of the state of the labour market and the unemployment rate, however, gave quite different estimates of the natural rate of unemployment. As there is no single right or wrong option, then using the average value found from estimating a large number of models may be the best solution.

THE LABOUR SUPPLY

All people in employment or unemployed are considered to be participants in the Estonian labour market. The number of participants leapt in 2022 because of immigration and the increased participation rate of local residents. The labour supply increased further in 2023 as the inflow of Ukrainian refugees continued, albeit at a lower rate than at the outbreak of the war in Ukraine, while according to the labour force survey the labour force participation rate has also risen further.

The supply of labour in a country depends on the number of residents of working age, and that number increased in Estonia in 2022 by 26,377 people or 2.7%. Almost 50,000 people migrated to Estonia while 10,000 people left in total, with 38,600 of the arrivals and 8600 of those departing aged over 15 (see Figure 17). This meant that migration added some 30,000 people to the working age population. Of those 30,000 arrivals, 23,000 came from Ukraine, some 800 from other countries of the European Union, and 6200 from other countries around the world. The number of people of working age was increased a little in 2022 and will be boosted again in the coming years by the cohort born when the birth rate was higher in 2007-2010 reaching the age of 15. At the same time the larger birth cohorts born after the Second World War will start to exit the labour market. The mortality rate for people of working age fell a little in 2022.

Figure 17. Change in the population and its components



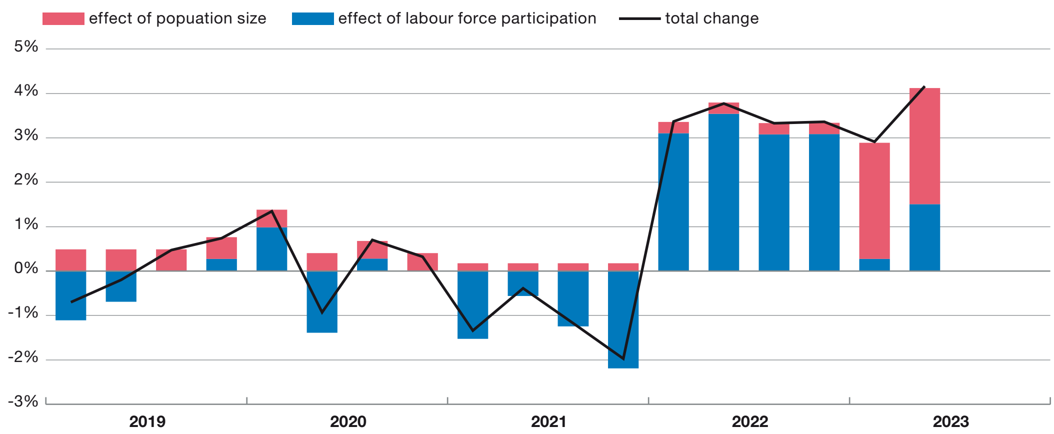
Sources: Statistics Estonia, Eesti Pank calculations

The methodology used in the labour force survey means that there is a lag in reporting changes in the working age population, as the estimates in the survey for the unemployment and employment rates are applied across the whole of the current year using the population at the start of the year. The growth in the labour force was consequently probably even larger in the second half of 2022 than the 3-4% estimated by the labour force survey, and the growth in 2023 was consequently smaller.

An increase in the labour force participation rate contributed alongside migration to increase the amount of labour (see Figure 19). This happened in 2022 because of the recovery from the fall in participation in 2021 caused by the pandemic. The participation rate continued to rise in the first half of 2023 among those aged over 25. The participation rate for younger people fell, but the confidence bounds for the 15-24 age group are quite wide because the age range is so narrow. There has been a large rise in the labour force participation rate for women in their middle working years.

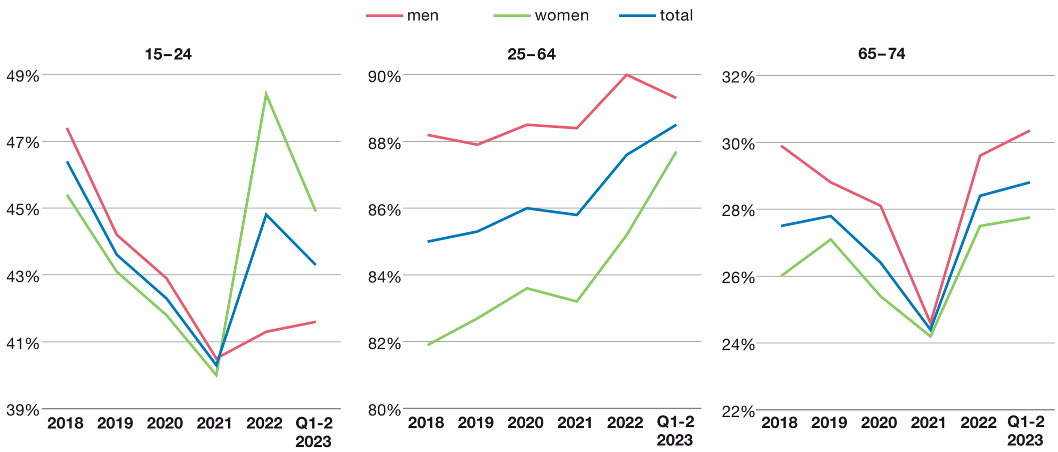
The share of the working age population that was inactive fell most in 2023 because the share of those aged 15-74 who were reported to be retired was smaller, and also because the share of those caring for children or other family members shrank (see Figure 20). A record low birthrate contributed to that as well. There were more people absent from the labour market because of studies than in 2022, probably among the young, whose participation fell.

Figure 18. Yearly change in the labour force and its components



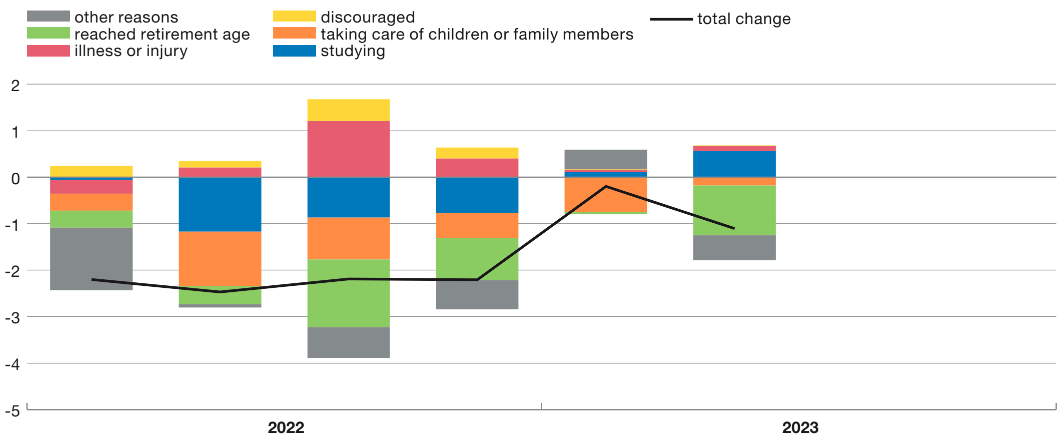
Sources: Statistics Estonia, Eesti Pank calculations

Figure 19. Labour force participation rate by gender and age group



Sources: Statistics Estonia, Eesti Pank calculations

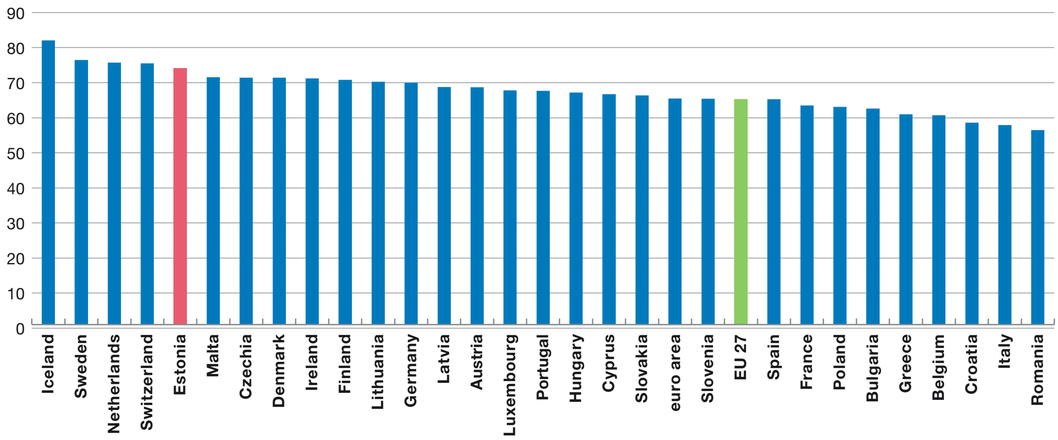
Figure 20. Change in the share of the inactive among the working age population, percentage points



Sources: Statistics Estonia, Eesti Pank calculations

Labour force participation in Estonia remains very high in international comparison, and Sweden and the Netherlands are the only two European Union countries where there is even greater participation (see Figure 21). Labour force participation was 0.5 percentage point higher in the second quarter of 2023 than it was a year earlier, and the participation rate rose in countries like the Netherlands and Switzerland where it was already at a very high level. The participation rate for women rose by more in most countries, which is a long-term trend.

Figure 21. Labour force participation by 15 to 74 year olds in Europe in Q2 2023, %

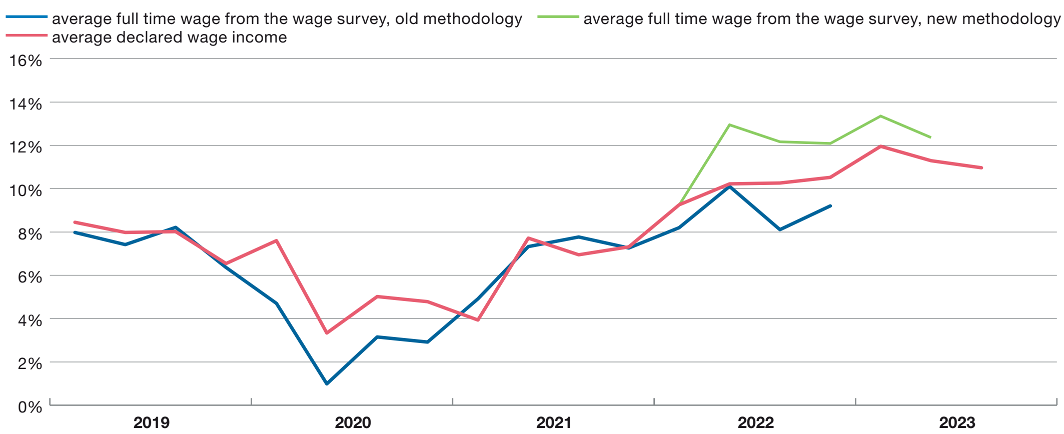


Sources: Eurostat, Eesti Pank calculations

AVERAGE WAGES

The average full-time equivalent gross monthly wage was 1873 euros in second quarter of 2023, and the median was 1524 euros. Having accelerated since its low point in 2020, the growth in the average wage reach 13.3% in the first quarter of 2023, and was 12.4% in the second quarter. Statistics Estonia started using a new methodology for calculating the average wage from 2023 that replaces corporate surveys with data from the employment register and social tax declarations. The new methodology shows that wages rose faster in 2022 than was earlier indicated. The average wage is still full-time equivalent and the income people earn from work is not aggregated across jobs, and so the estimates found under the new methodology are still different from the data from the Tax and Customs Board on average declared wage income. Those data suggest that the growth in the average declared wage income earned under an employment contract was a little slower than what the wage statistics found in both 2022 and the first half of 2023 (see Figure 22).

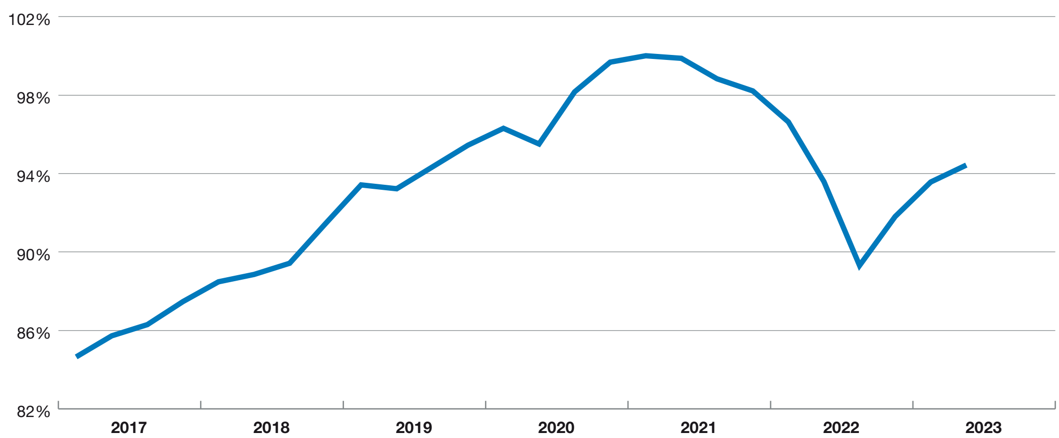
Figure 22. Yearly growth in the average monthly gross wage



Sources: Statistics Estonia, Tax and Customs Board, Eesti Pank calculations

Having lost around 10% between the middle of 2021 and the third quarter of 2022, real wages started to recover from the fourth quarter of 2022 (see Figure 23). The nominal growth in the average wage was faster than that in consumer prices in the second quarter of 2023, and so real wages increased over the year. Real wages were 6.5% higher in the second quarter of 2023 than at their lowest point in the third quarter of 2022, and were around 4.4% below their peak from before the crisis.

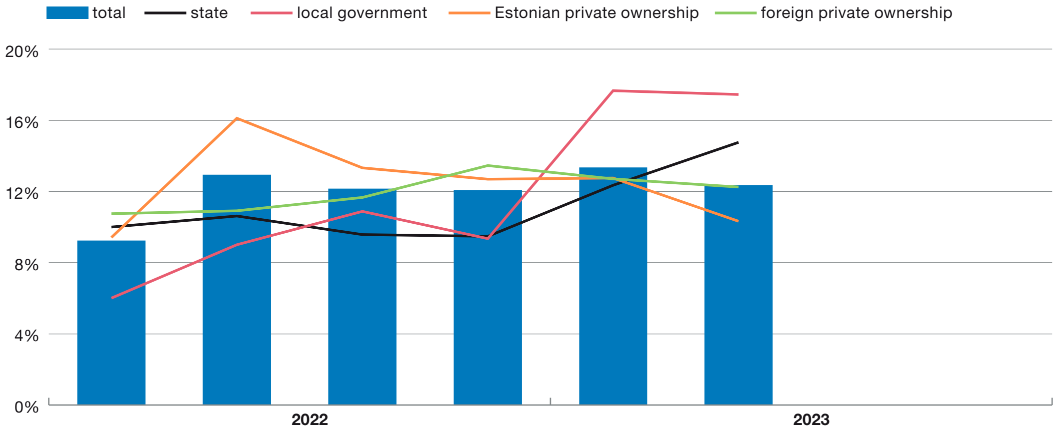
Figure 23. Average real wage, Q2 2021 = 100%



Sources: Statistics Estonia, Eesti Pank

The employer type where wages rose fastest in the first half of 2023 was local government administration and state administration. Substantial wage rises in local government institutions reflect above all the rise of 20% in the lowest rate of pay for teachers, while the rise in wages in state administration in the second quarter probably came from the entry into force of the collective agreement for healthcare workers. Wages in the private sector, especially at Estonian-owned private companies, rose at a slightly slower rate in the first half of 2023 (see Figure 24).

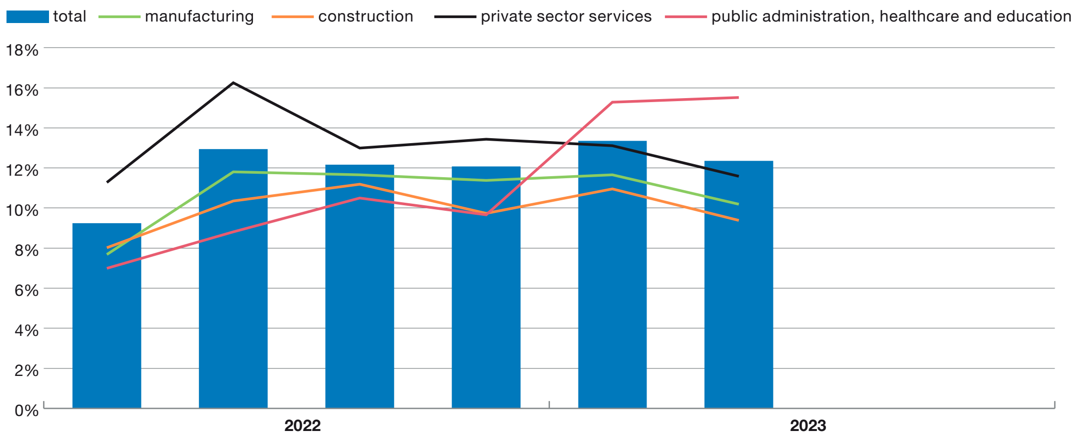
Figure 24. Yearly change in average wages by employer ownership



Sources: Statistics Estonia, Eesti Pank calculations

Data from Statistics Estonia show that the yearly growth in wages accelerated in jobs in the public sector, which is to be expected given that the state budget 2023 planned for large pay rises for staff in education, rescue crews and healthcare workers. Wages in the private sector rose more in services than in industry, with wages in accommodation and catering continuing to rise quickly. Growth in the average wage slowed in manufacturing, as it did in construction (see Figure 25). Wage growth in sectors where employment fell may have been boosted by changes in the structure of employment, since companies had good reason to keep staff with specialised skills on the payroll, as such employees are harder to re-engage and expensive to train when demand recovers.

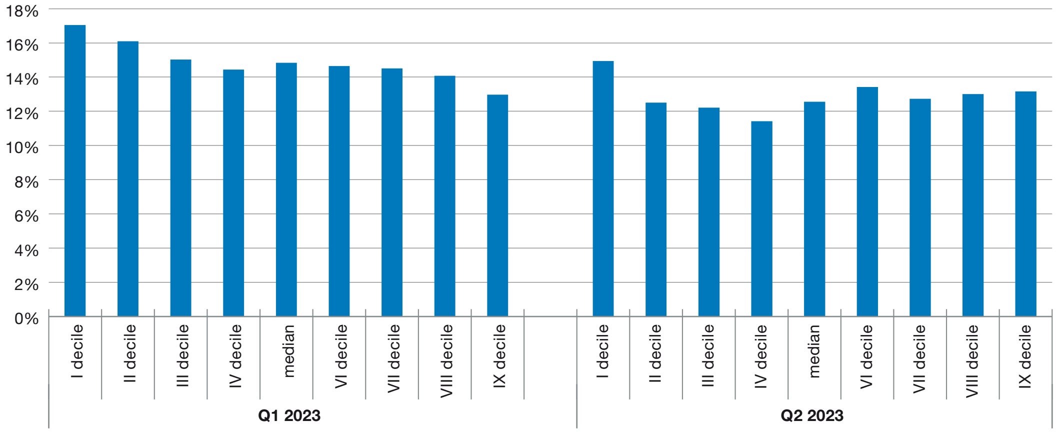
Figure 25. Yearly change in average wages by sector



Sources: Statistics Estonia, Eesti Pank calculations

The growth in wages across the wage distribution was notably more even than it was in 2022, when wages were recovering from the temporary hit they took during the pandemic (see Figure 26). Growth was again fastest in the first and second deciles, which reflected a rise of 10.8% in the minimum wage to 725 euros from 654 euros in 2022. Wages also rose faster than they did in 2022 in the upper end of

Figure 26. Yearly change in wage deciles

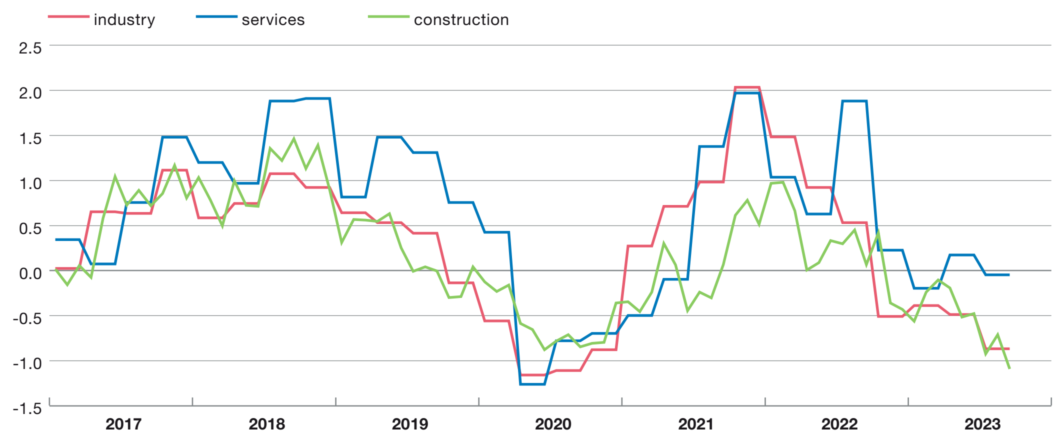


Sources: Statistics Estonia, Eesti Pank calculations

the wage distribution. Inequality in wages still declined a little in the first half of 2023, as the growth was faster than the average in the wage deciles below the median for declared wage income.

The decline that started in early 2022 in employers in manufacturing and construction reporting to the Estonian Institute of Economic Research that they face labour shortages continued throughout the first three quarters of 2023, while reported labour shortages in services remained close to their historical average in 2023 (see Figure 27). Labour shortages may be biting less because the labour supply has increased, or because employers are finding less need than before to hire new staff. The decline in labour shortages would in both cases indicate that wage pressures, which make it harder to find new employees, are less than they were.

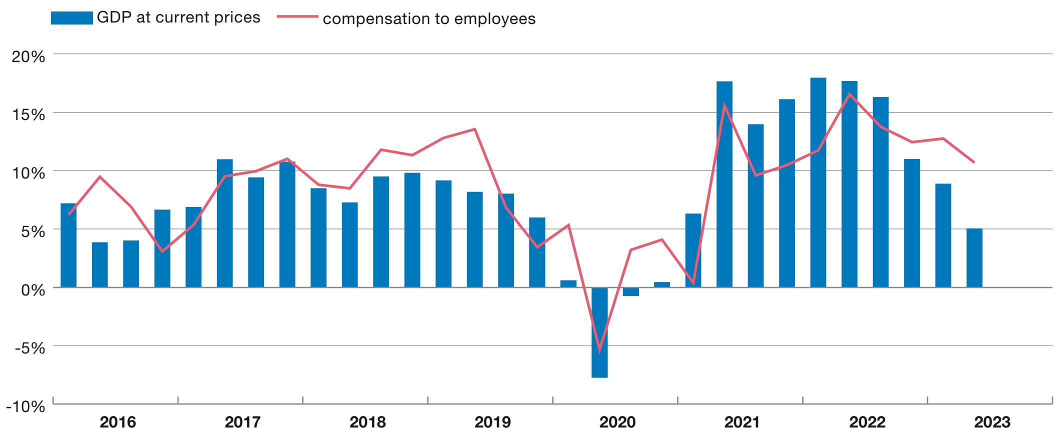
Figure 27. Labour shortages, standardised



Sources: European Commission, Eesti Pank calculations

Labour costs, or the compensation to all employees of the whole economy, grew faster in the first half of 2023 than GDP at current prices did (see Figure 28). This means that labour costs started to grow again as a share of value added having fallen in 2022, while the capital share, which reflects profits and depreciation of fixed assets, declined. This is partly because wages were rising faster, and also because the growth in value added created in Estonia slowed at current prices. Labour costs were 53.5% of GDP, which is higher than they were during the pandemic. It is quite normal that profits fluctuate by more than labour costs over the economic cycle, as businesses have at least some incentive to hold on to

Figure 28. Yearly growth in compensation to employees and nominal GDP

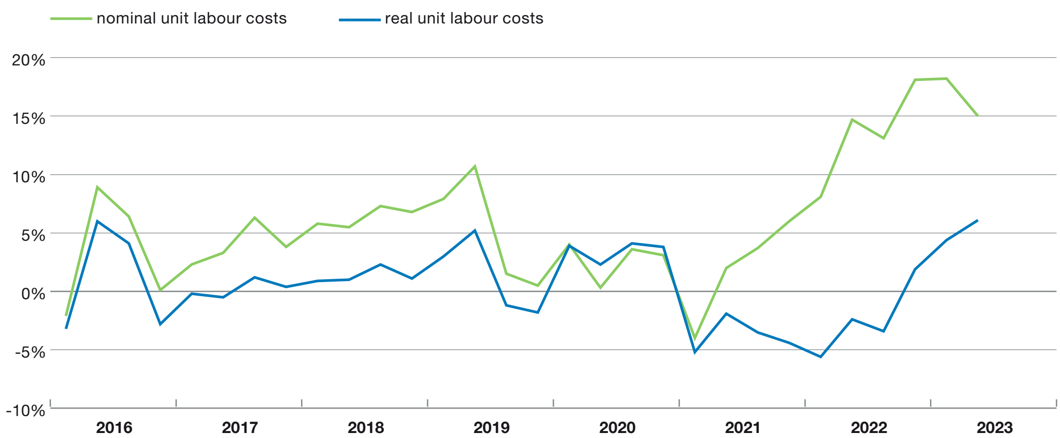


Source: Statistics Estonia

employees even during difficult times, as hiring and training labour is expensive and takes a long time. The payroll as a share of value added created approached its previous peaks in the second quarter of 2023 in manufacturing, construction and information and communications.

A very similar indicator to the share of labour costs is real unit labour costs, and growth in those measures the change in the relationship between wages and labour productivity over time. Growth in real unit labour costs accelerated to 6.2% in first half of 2023 (see Figure 29). The labour costs for producing one unit of value added in Estonia increased by around 16.6% in the first half of 2023, and by 9.6% in manufacturing. Production within a country becoming more expensive is generally bad news for the sector that is open to foreign competition, as passing higher costs through into prices hurts competitiveness. To get a more accurate picture though it is more important to analyse how production costs have changed relative to those of competitors. Box 2 looks in greater depth at how high inflation has passed through into wages in manufacturing in Estonia, Latvia, Lithuania and other European Union countries.

Figure 29. Growth in unit labour costs



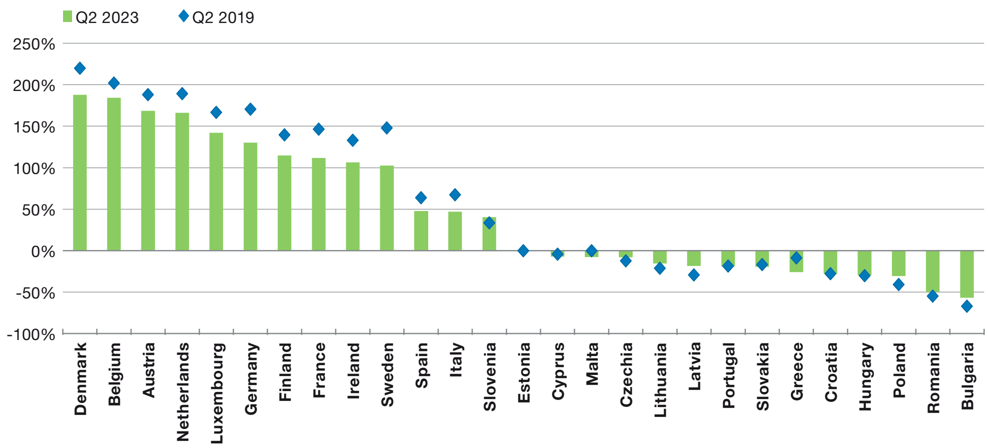
Source: Statistics Estonia

Box 2: The labour costs of manufacturing in Estonia in international comparison

Inflation shot up in Estonia and the countries of the European Union in 2021 and part of the rise in inflation has been passed through into wage growth over time. How inflation affects wages varies from country to country depending on many factors such as labour market institutions, the role played by trade unions in setting wages, and the cyclical position of the economy. The extent and dynamics of the inflation shock have also varied across countries, as have the policy measures that governments have taken to ease the shock. At the same time the relative level of labour costs affects how competitive companies are in foreign markets, especially in export-focused manufacturing. Labour costs are an important part of production costs, and were 17% of total production costs in manufacturing companies in Estonia in the second quarter of 2023 for example. This makes it important to establish how the faster growth in wages and labour costs in Estonia since 2022 compares to the picture in other countries of the European Union.

Two data sources that can be used for international comparison of the rise in labour costs are the labour cost indexes and GDP data on compensation for workers. The labour cost index shows the cost of labour per hour and uses indicators that cover all payments and subsidies to identify the cost to employers. GDP data can be used to find labour costs per person employed and per hour worked. The starting period used is the second quarter of 2019 as this was a stable period before the pandemic. GDP data show that labour costs per employee in manufacturing in Estonia in the second quarter of 2023 were 60.3% of the average in the European Union. The figure per hour worked is 51.3%, as the number of hours per person employed is higher in Estonia. The GDP statistics show that the wage level in manufacturing in Western European countries with high wages and high standards of living is around three times as high as that in Estonia, while workers in Romania and Bulgaria earn only half of the wage paid in Estonia. The wage level in manufacturing in Estonia is higher than that in most countries of Central and Eastern Europe, and also higher than in Portugal, Greece and Cyprus (see Figure B2.1).

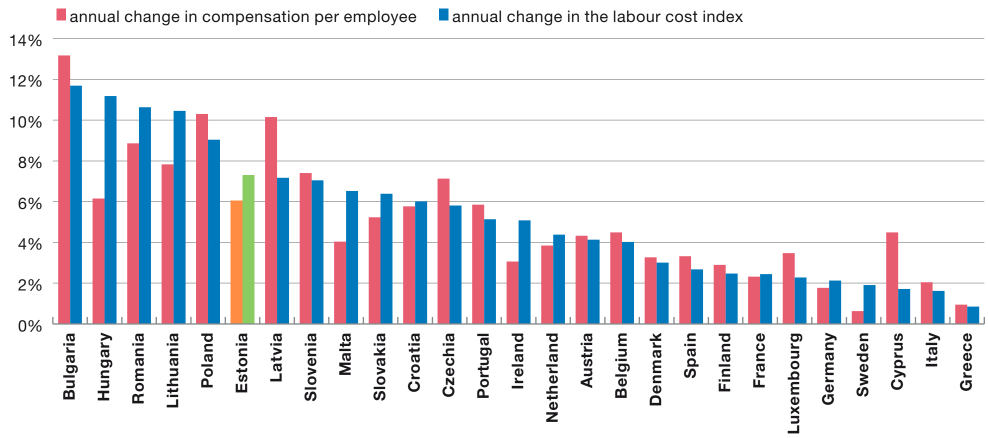
Figure B2.1. Compensation per employee in manufacturing, % of EU average, Q2 2023 and Q2 2019



Sources: Eurostat, Eesti Pank calculations

Taking the four-year average change in the labour cost index as the starting point, the wage level in manufacturing rose more slowly in Estonia during the period of observation than it did in five central and eastern European countries including Lithuania and Poland, while it rose at a very similar rate in Latvia and Slovenia (see Figure B2.2). This is good news for Estonia, as those countries are the main competitors in export markets. Estonian labour costs still grew faster than

Figure B2.2. Average yearly change in compensation per employee and the labour cost index in manufacturing, Q2 2019 to Q2 2023



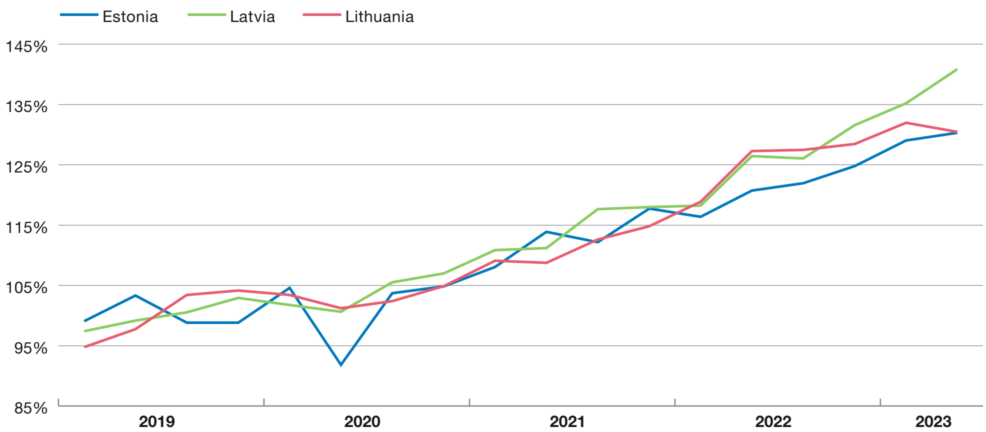
Sources: Eurostat, Eesti Pank calculations

those in more distant countries of Central and Eastern Europe like Czechia, Slovakia and Croatia. The wage level in Estonia also rose at a faster rate than the high wage levels in Western Europe. This is part of the long-term process of convergence, and so is not surprising. The differences between the growth rates found from the labour cost index and those found from GDP data are quite wide. The growth in labour costs in Estonia shown by the GDP statistics both per person employed and per hour worked was slower than that found from the labour cost index, and so the conclusions also apply if those data are used.

The four years of observations cover both the Covid-19 pandemic and the outbreak of war in Ukraine and the energy crisis. The question arises of when the dynamics of Estonian labour costs departed from those in Latvia and Lithuania, the other two Baltic states. GDP data show that labour costs grew in Latvia and Lithuania during the pandemic at quite a similar rate to those in Estonia, but from 2022 they have risen faster in Estonia's neighbours (see Figure B2.3). The fast growth in labour costs in Latvia in recent years is particularly eye-catching.

It is not only labour costs that are important for competitiveness, as the productivity of labour matters because that dictates how much labour is needed for one unit of production. Rapid

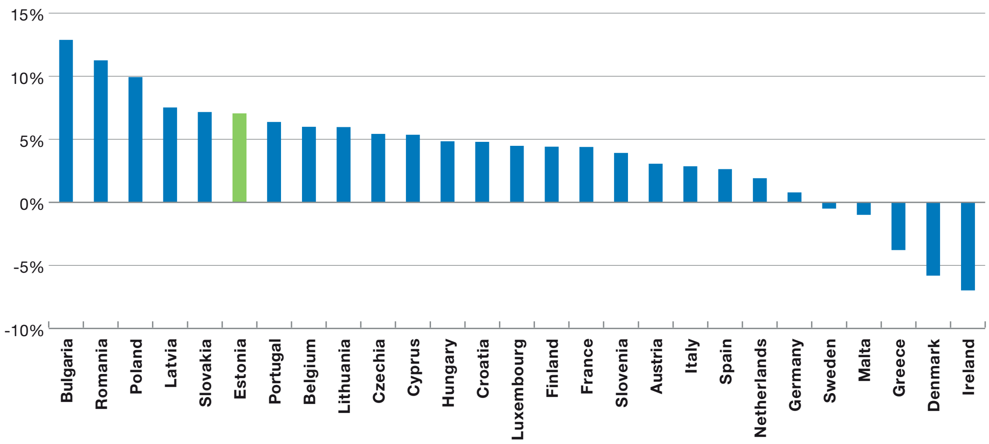
Figure B2.3. Compensation per employee in manufacturing, 2019 = 100%



Sources: Statistics Estonia, Eesti Pank calculations

growth in wages does not hurt competitiveness if it is accompanied by a similar growth in productivity. This means that unit labour costs are more informative for competitiveness than the payroll alone, or the amount paid for work, as they show how much employers pay their workers for each unit of value added created. The disadvantage of unit labour costs is that productivity falls when demand is low because some companies decide to keep their employees on the payroll in the expectation that demand will recover. Like the indicator for labour costs, nominal unit labour costs have risen fastest in the Baltic states in Lithuania over the past three years, while the dynamics in Latvia and Estonia have been quite similar (see Figure B2.4). This means that the dynamics of unit labour costs do not show Estonian manufacturing becoming less competitive in comparison to that in neighbouring countries.

Figure B2.4. Yearly change in nominal unit labour costs in manufacturing, Q2 2019–Q2 2023



Source: Eurostat, Eesti Pank calculations