EESTI PANK

LABOUR MARKET REVIEW

2
2019

LABOUR MARKET REVIEW

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. 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 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.

This review compares developments in Estonia with those in other European countries. It uses two types of figure for international comparison dividing countries into regional groupings for a long-term view and using unweighted averages. The exception is the EU15, for which a weighted average like that published by Eurostat is used. The Southern Europe group contains newer member states of the European Union: Bulgaria, Croatia, Cyprus, Malta, Romania and Slovenia. The Southern European countries Greece, Italy, Portugal and Spain are in the EU15 group. The Central and Eastern European countries in the CEE4 are Czechia, Hungary, Poland and Slovakia. In figures showing a single year, countries are shown in the colour representing the group that they are in.

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SUMMARY

The global economy and the economies of Estonia's main trading partners were cooled in the first half of 2019 by the trade tensions between the USA and China, which reduced international trade flows. On top of that, uncertainty increased in Europe because of the exit of the United Kingdom from the European Union. The Estonian economy performed better than expected in the first half of the year, but growth was observed to slow from quarter to quarter. Changes in economic activity reach the labour market with some delay, but signs of cooling were more and more evident in labour market indicators.

The labour market indicators for the exporting sector are the first to reflect the slower growth caused by the external economy. Growth in demand for labour in manufacturing is clearly weaker, and the expectations of employers in manufacturing for employment are notably more pessimistic than they were. Oil shale production has been affected by a sharp rise in the price of CO_2 quotas this year, which has made electricity produced in Estonia less competitive. Although this shock has not yet impacted the labour market indicators, experience from the previous crisis suggests it will affect employment and unemployment substantially, especially in Ida-Virumaa. Unlike the industrial sector, the service sector continued to do well in the first half of the year in terms of employment growth and expectations for growth.

The labour supply was supported by an increase in the working age population as a consequence of immigration. Immigration to Estonia has exceeded emigration for four years now. On top of long-term migration, there has been an increase in recent years in temporary migration to Estonia from outside the European Union. Experience in other countries shows that immigration can have a substantial effect on the labour market outcomes of permanent residents. The impact is complex though because some part of the permanent labour force gains from immigration while another part loses. Workers whose jobs are complemented by immigrants tend to gain, while those who compete with immigrants in the labour market lose out. Given low unemployment and the natural decline in the working age population, it is probable that Estonia has generally benefited so far from labour migration. Were the economy to suffer a major setback however, immigration may hinder movement from a shrinking branch of the economy to an area that is growing. There may also be cases where companies decide to make local workers redundant rather than those hired from abroad.

Overall in 2019, labour shortages were more of an issue than unemployment in the labour market. There was little labour available in the first half of 2019, and the unemployment rate remained very low. Unemployment has gradually increased quarter by quarter though, which also indicates that the labour market is cooling. The share of companies that consider labour shortages to be the main obstacle to their expansion fell in construction and also to some extent in manufacturing, while it remained at record high levels in the service sector.

Wage growth was a little slower in the first quarter of 2019 than in the previous half year. As they did in 2018, wages grew faster than the average in the public sector, where wage pressures were increased by a rise in the vacancy rate, and where labour shortages cannot be eased by hiring labour from abroad. Wages rose faster at the same time in manufacturing and construction, which are sectors where the growth in value added has slowed. Wages may be rising faster in those sectors because the wages of foreign short-term workers are indexed by the requirement that they be paid at least the average wage of the previous year. The income tax reform may also have had an impact, as the net wage

reform had an increased effect in 2018, which may have allowed employers to hold back wage rises. The effective income tax rate rose in 2019 though, as the tax-free threshold was not changed.

Labour income increased as a share of GDP in 2019, and the payroll of the whole economy grew faster than profits did. Profits were down in both quarters in construction and in the second quarter in manufacturing too. Real unit labour costs again rose faster in Estonia, Latvia and Lithuania than in other regions of the European Union. In manufacturing, which is the largest exporting sector, the growth in labour costs exceeded that in productivity by less in Estonia than in other countries. This suggests that the cooler economy has also slowed growth in profits in the other countries, but the growth in labour costs has reacted more slowly.

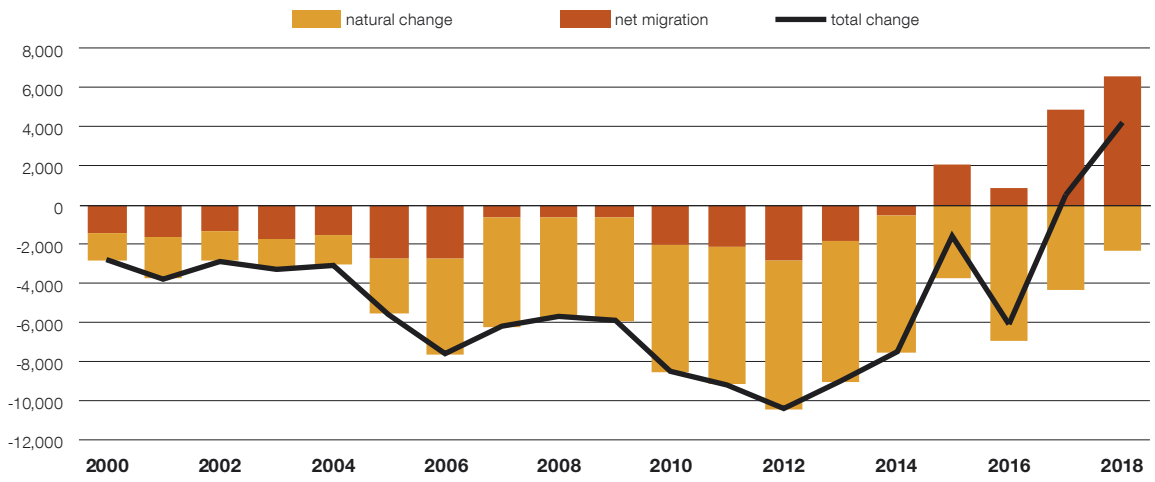
LABOUR SUPPLY

The working age population

Statistics Estonia estimates that there were 1,324,820 permanent residents living in Estonia as at 1 January 2019. This was 5687 people, or 0.4%, more than a year earlier. The Estonian population first started to grow in 2015, having previously fallen ever since independence was regained. The change in the trend was caused by migration, as the number moving to live in Estonia exceeded the number leaving in 2015, unlike in earlier years. Last year immigration exceeded emigration by 7071 people. Registered and unregistered emigration ran at 0.7% of the population registered at the start of the year in 2018, and immigration was at 1.3%. The migration balance has improved in recent years because emigration has declined and immigration has increased at the same time. There was no change in immigration in 2018.

The working age population aged 15-74 increased by some 4400 people over the year, or 0.4% (see Figure 1). The natural decline in the working age population has bitten less and less in recent years, as the cohorts exiting the labour market are the small ones that were born after the Second World War. Over 6600 more people of working age came to live in Estonia in 2018 than left. This figure covers only those who came to live permanently in Estonia, meaning they planned to spend at least 12 months in the country, and so the population statistics do not cover the majority of people working short-term in Estonia or posted workers.

Figure 1. Change in the working age population aged 15–74

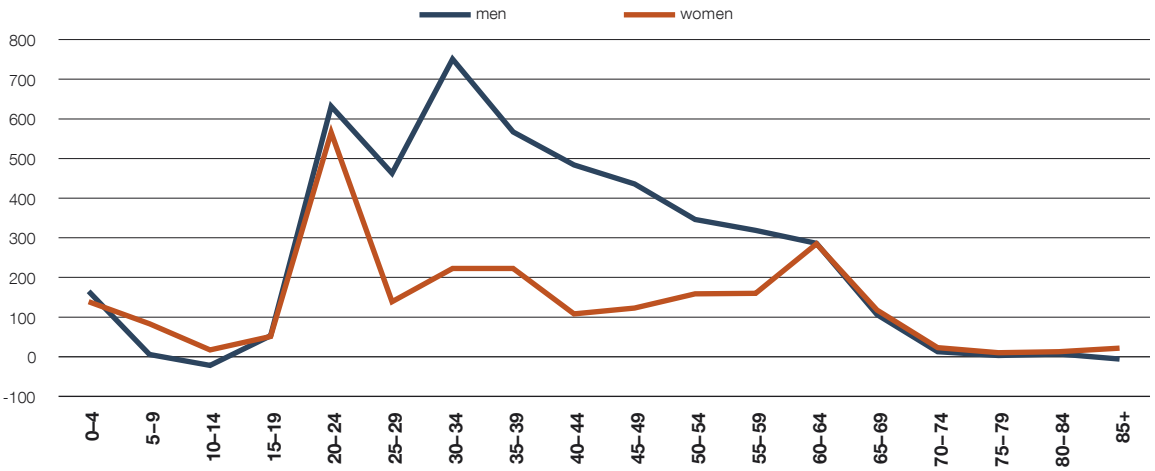


Sources: Statistics Estonia, Eesti Pank calculations

Estonian citizens were 63% of the emigrants, and the remainder were probably people who had earlier moved to live in Estonia and who returned to their home country or moved on to another country. The destination countries of only a little under half of those who left are known, but 80% of them moved to other countries in the European Union, with 45% of them moving to Finland. At the same time there was significant return migration by Estonian citizens, as 45% of immigrants were citizens. The migration balance of Estonian citizens was positive for the second year in a row, and some 1300 more citizens returned to Estonia than left to live abroad.

The migration balance, which is the difference between immigration and emigration, was positive in 2018 for both men and women. It was smaller for women than for men though, and women account for only about a third of total net migration. Men dominate in the migration balance in the 25-59 age bracket (see Figure 2). Although the gender balance in migration has improved year on year, it has for a long time helped to boost the share of men in the population.

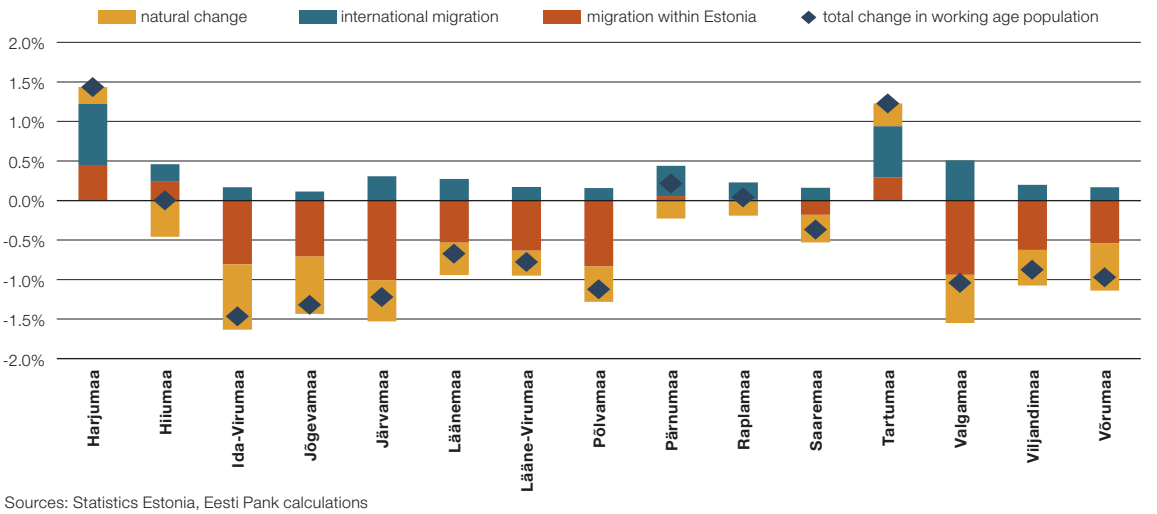
Figure 2. Net migration of men and women by age group, 2018



Source: Statistics Estonia

The regional distribution of population is affected by the three processes of emigration, internal migration between regions, and the natural population changes of the region. The natural population changes were positive in 2018 in Harjumaa and Tartumaa, where the population is younger than elsewhere in Estonia (see Figure 3). Migration meant that more counties gained population than they did in earlier years, but the biggest growth was again in Harjumaa and Tartumaa, while the population fell by more than the average in north-east and south-east Estonia.

Figure 3. Change in the population of counties in 2018



Sources: Statistics Estonia, Eesti Pank calculations

As the migration balance has been positive for several years, the long-term population forecast has also been adjusted upwards. The baseline scenario of the population forecast released in 2019 by Statistics Estonia assumes that the migration balance will be in surplus by around 1500 people a year until the end of the forecast horizon. In this case the Estonian population would shrink by only 5.8% by 2060. At the same time the population will age further, as the share of those aged over 65 increases from under 20% this year to a little over 30%. The forecast published by Eurostat meanwhile assumes that the migration balance will remain the same in the coming years as it was last year, and will then start to decline. Eurostat forecasts that the Estonian population by 2060 will be 8.8% smaller than in 2020, and the share of those aged 65 and over will grow like in the Statistics Estonia forecast to reach 30%. It should always be remembered with population forecasts that such long-term forecasts cannot be precise. The current population and population structure of Estonia do not match earlier population forecasts.

Box 1. The types of migration for work in Estonia

Rising wages, strong demand for workers, and looser rules have in recent years encouraged more and more foreigners to move to Estonia to work. This box looks at the different ways of coming from abroad to Estonia to work.

One of the core principles of the European Union is the free movement of labour, and so it is easy for citizens of other member states, and those of countries in the European Economic Area and of Switzerland to come to work in Estonia. When they find a job, they should register their place of residence in the population register, after which they have the right to reside in Estonia for five years. People coming from the European Union to Estonia to work cannot be distinguished in the data from other types of migrant, such as those migrating for family reasons. In 2018, 4158 citizens of other member states moved to live permanently in Estonia.

There is a quota that limits the number of fixed-term residence permits granted to people coming to work from countries other than those noted above, and it is set at 0.1% of the population, which was 1315 people in 2019. Several groups of workers are exempt from the quota though, such as professionals, workers in IT and those founding start-ups, and citizens of the USA and Japan. The law sets two other limits on top of the quota on people applying from third countries, and these are the wage criterion and the permit from Töötukassa. This permit is issued if the job cannot be filled by a resident of Estonia and the applicant has the appropriate qualifications for it. The general wage criterion is a requirement for workers to be paid a wage that is at least the same as the average Estonian wage of the previous year. One important exception is professionals, who are required to receive double the average wage. A temporary residence permit is issued to workers for five years, and when that time is over the worker can apply for a permanent residence permit. Alongside those given a temporary residence permit for the purpose of work, people can also work in Estonia on other grounds such as under a residence permit granted for studying. A total of 2748 temporary residence permits for work were issued in 2018, meaning that about as many were issued outside the quota as fell within the quota.

Citizens of third countries on a long-term visa can also work in Estonia temporarily if their work is registered with the Police and Border Guard Board. Unlike the temporary residence permit, this only allows 12 months of work in Estonia within 15 months, or 18 months of work within two years on consecutive visas. Like those working in Estonia under a temporary residence permit, short-term workers with a visa have to receive at least the Estonian average wage. An exception is made for work defined by law as seasonal, in which case up to nine months of work are permitted per year, for which the employee must receive at least the minimum wage. Unlike with the temporary residence permit for work, work under a short-term visa does not require a permit from Töötukassa. Data from the Police and Border Guard Board show that there were 20,402 current registrations in the third quarter of 2019.

Citizens of third countries can also work in Estonia on secondment from other European Union countries. In this way, citizens of, say, Ukraine may arrive in Estonia as posted workers registered as working for Polish companies, including labour brokerage

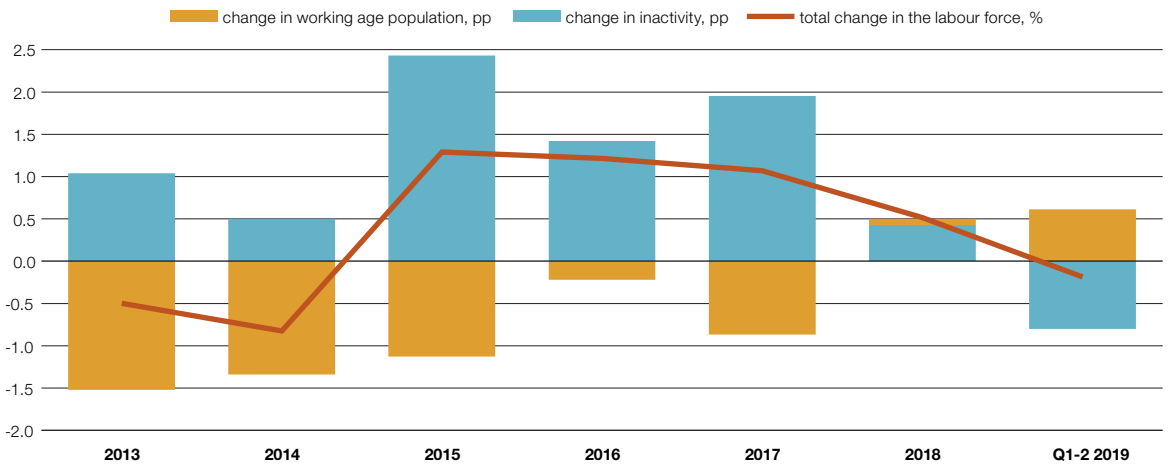
companies. Posted workers have to be paid at least the Estonian minimum wage and they have to be registered with the Labour Market Inspectorate. If they are citizens of third countries, they must also register at the Police and Border Guard Board as short-term workers. In the first three quarters of 2019, 2631 workers were registered, though this number includes citizens of other member states of the European Union.

Another way that citizens of third countries can work in Estonia is if they work for a company in another European Union country that provides services in Estonia. In this case they probably do not show up in estimates of employment found from any statistical survey, and for Estonian companies they do not count as labour costs but as the cost of services purchased.

The labour force and labour market participation

Labour shortages have been eased in several recent years by an increase in the domestic supply of labour. This increase stopped in the second half of last year though, and at the start of this year the domestic labour supply shrank. The labour supply depends on the size of the working age population, and on how actively that population participates in the labour market. The ongoing increase in the labour participation rate over several years stopped in the second half of 2018 and in the first half of 2019 it was 0.5 percentage point lower than in the first half of 2018 at 71.2%. Weaker labour force participation meant that the number of residents who were not active in the labour market grew faster than the working age population (see Figure 4) and data from the labour force survey show that 698,800 residents of Estonia of working age, 15-74, were in work or looking for work, which is around 1300 fewer than a year earlier.

Figure 4. Yearly change in the labour force

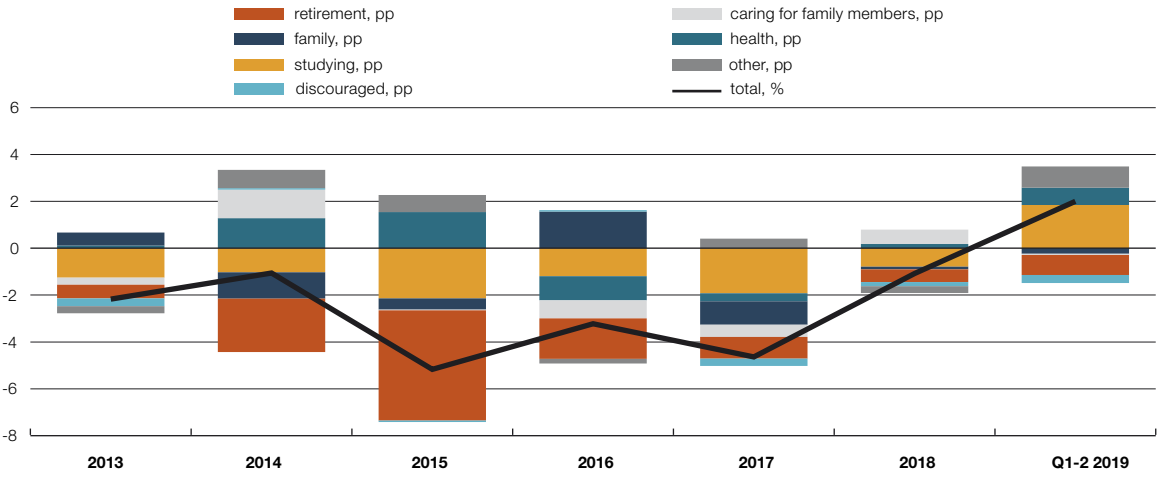


Sources: Statistics Estonia, Eesti Pank calculations

Those considered inactive in the labour market are residents aged 15-74 who are not engaged in work or looking for work, meaning they do not want to work or are not capable of doing so. The number of residents who were inactive in the labour market in the first half of this year was some 5600, or 2%, more than a year earlier. The number of residents inactive rose and the labour market participation rate fell mainly because more young people aged 15-24 remained outside the labour market because they were studying than

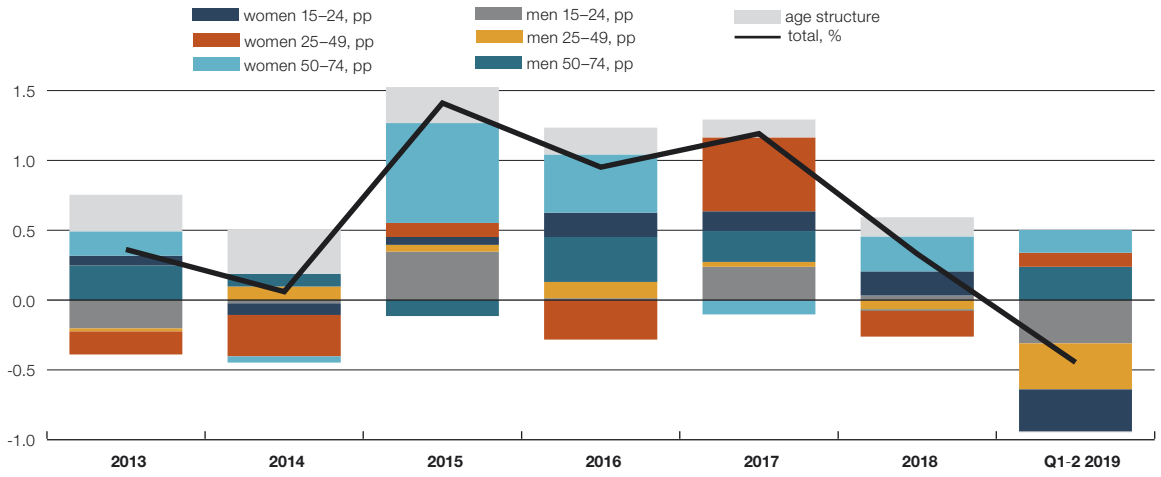
was the case earlier (see Figures 5 and 6). The number remaining outside the labour market because of studies has fallen over the years, but it stopped falling in the second half of last year. This may partly be because the share of those aged 15-19, who are still studying in the general education system and are very inactive in the labour market, increased among those aged 15-24.

Figure 5. Causes of the yearly change in the number of non-participants



Sources: Statistics Estonia, Eesti Pank calculations

Figure 6. Contributions to the yearly change in participation rate by age and gender

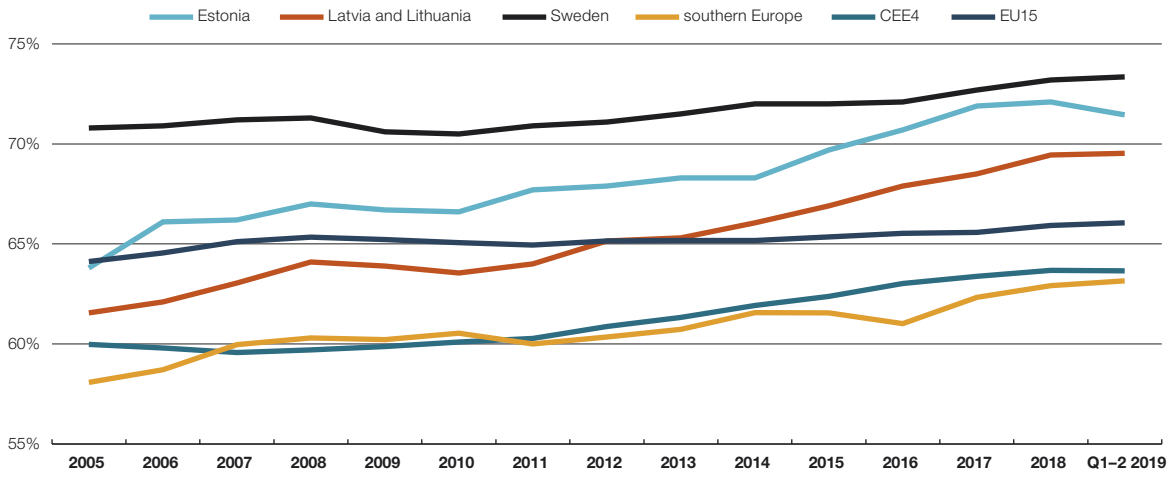


Sources: Statistics Estonia, Eesti Pank calculations

Those in older age groups are participating in the labour market ever more actively, and absence from the labour market because of retirement continues to decline. The labour market behaviour of the older age groups is probably affected partly by the continuing rise in the retirement age, and partly by the increased opportunity offered by labour shortages to remain in work or to find a new job.

The labour force participation rate fell a little in the first half of 2019, but it remains one of the highest in the European Union (see Figure 7), and is exceeded only by that in Sweden.

Figure 7. Labour force participation rate, ages 15–74



Sources: Eurostat, Eesti Pank calculations

For this reason a slower rise in labour force participation is largely to be expected, and it may be assumed that it will rise more slowly in future than it did in 2015-2017. The rise in labour force participation has slowed elsewhere in Europe, which may be because the improvement in the economic climate has also slowed.

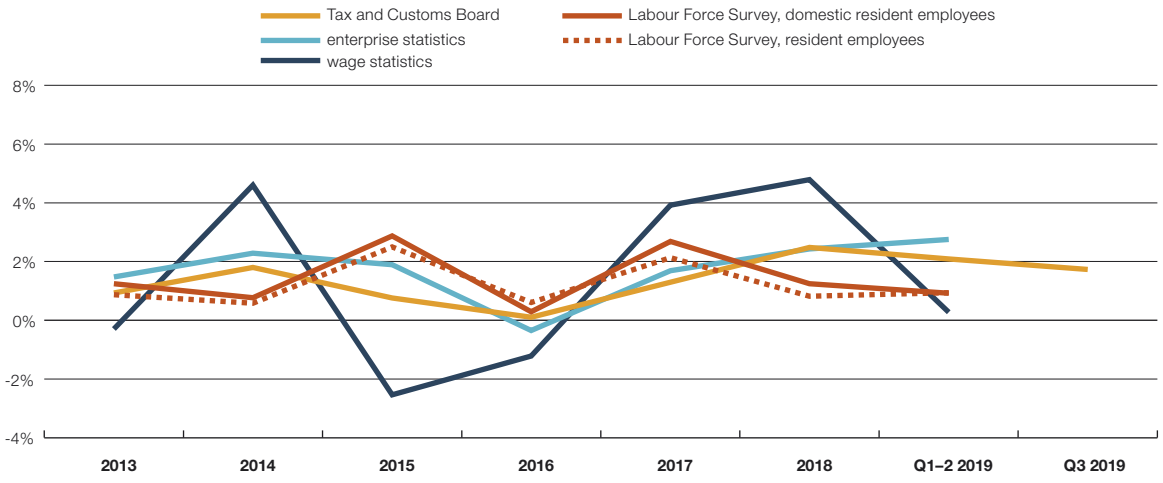
DEMAND FOR LABOUR

The balance between the demand for labour and the supply of it was again tilted in favour of demand in the first half of this year. The cooling of the global and European Union economies has not yet fully impacted growth in the Estonian economy, which continued to exceed its long-term sustainable level in the first and second quarters of this year. Strong demand for labour is indicated by the continuing rapid rise in wages and the very low unemployment rate. Efforts have also been made to ease labour shortages by hiring short-term labour from abroad alongside Estonian local labour. Without this, wage pressures in the economy would have been even larger. The rate of growth in the economy was slower in the second quarter than in the first, and signs were also apparent in the labour market of the growth in demand for labour slowing. The number of vacancies started to come down a little, and the expectations of companies for future growth in employment have become more pessimistic.

Employment

The labour force survey showed that companies based in Estonia employed an average of 649,100 Estonian residents in the first half of this year. The employment of Estonian residents[1] at companies based in Estonia was 0.9%, or 5950 people, more than a year earlier (see Figure 8). The total employment of Estonian residents increased by the same amount. In the past couple of years the employment of permanent residents of Estonia has increased more slowly than Estonian employment, as the number of Estonian residents working abroad, mainly in Finland, has fallen. Like growth in the economy, it is apparent that growth in employment has become slower quarter by quarter.

Figure 8. Yearly change in employment in different data sources



Sources: Statistics Estonia, Tax and Customs Board

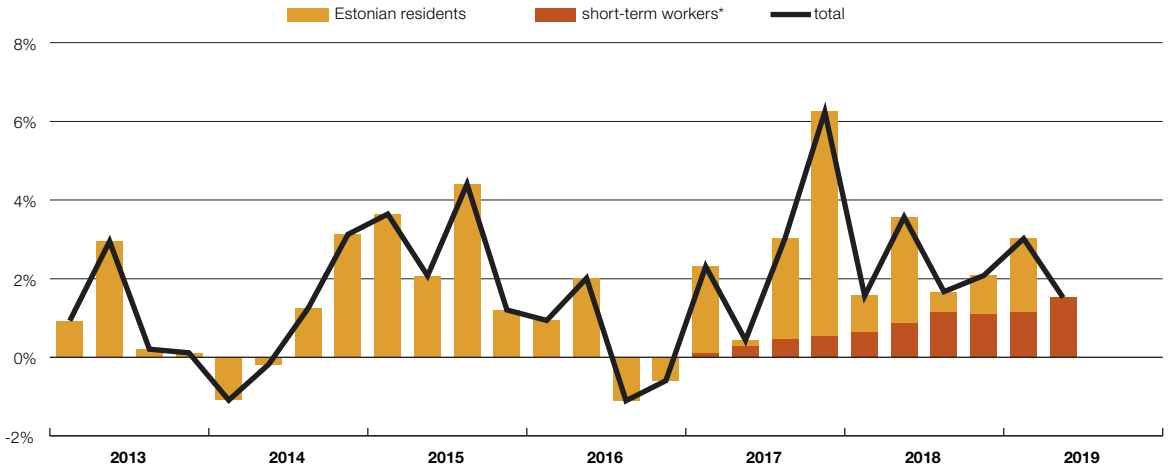
Alongside permanent residents of Estonia, more and more short-term workers from third countries outside the European Union are working in Estonian companies. The Police and Border Guard Board had a little over 12,400 current short-term registrations for work[2] in the first quarter and a little over 18,000 in the second quarter. There were on average 2.3 times as many

1 The general population used in the labour force survey is Estonian residents, meaning permanent residents who have lived in the country or plan to do so for at least 12 months and spend the majority of their free time in Estonia.

2 It is permitted to register for short-term work for up to one year within a 15-month period.

current registrations in the first half of the year as there were a year earlier. It should be noted though that a current registration does not necessarily mean that the holder is actually working in Estonia for the whole quarter, and so those data should be treated as an approximation. Adding together the employment of Estonian permanent residents from the labour force survey and the number of current short-term registrations for work gives an indication of the total employment at employers in Estonia. This figure indicates that employment increased in Estonia by an average of 2.3% in the first two quarters of this year, with a little over half of the growth coming from short-term foreign labour (see Figure 9).

Figure 9. Yearly growth in employment of Estonian residents and short-term foreign workers



* number currently registered
Sources: Statistics Estonia, Police and Border Guard Board, Eesti Pank calculations

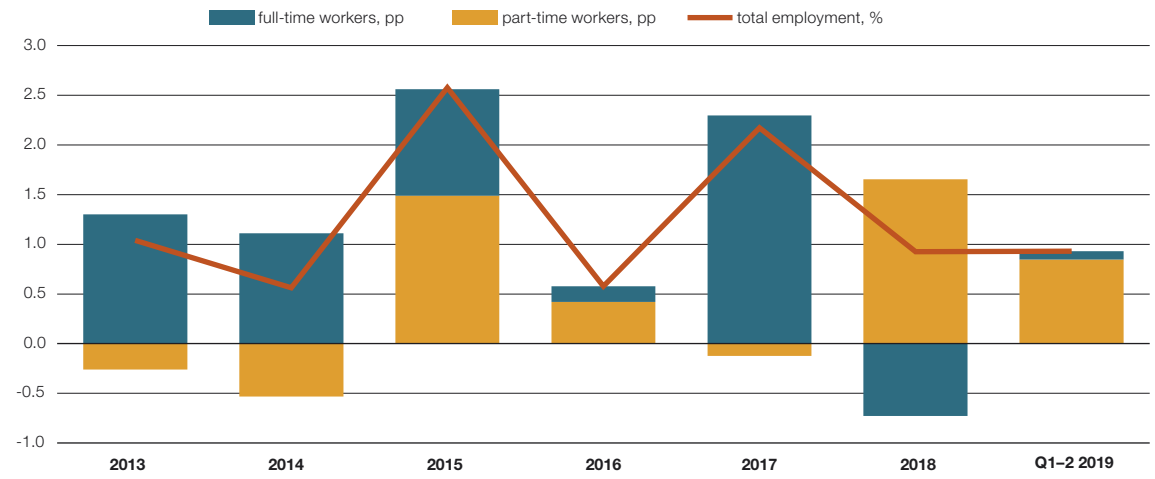
Unlike the labour force survey, which covers only permanent residents of Estonia, company reports and employment indicators based on registers show people working short-term in Estonia. Data from the Tax and Customs Board are registry data for example, and they show all the workers earning a wage who are taxable residents of Estonia. This means the number of waged employees from the Tax and Customs Board data also covers short-term foreign employees working in Estonia that have received a wage in Estonia for at least six of 12 consecutive months. Data from the Tax and Customs Board show that employment started to increase faster from the end of 2017, which coincides with the increase in the registration of temporary workers. The same data show the number employed in Estonia was 2.2%, or around 11,900 workers, higher in the first half of this year than a year earlier (see Figure 8). Comparing the employment of permanent residents from the labour force survey with the growth in employment found by the Tax and Customs Board indicates that short-term foreign labour accounted for a little over half of the increase in employment in the first half of the year.

Like the Tax and Customs Board data, the enterprise statistics and the wage survey contain employment data for both permanent residents and short-term foreign labour. The enterprise statistics only cover companies in the private sector. Short-term employees usually work in private sector companies, which would explain why the enterprise statistics indicate faster growth in employment than the data from the Tax and Customs Board do (see Figure 8). The wage survey covers both public and private sector institutions, but the employment figures in it are full-time equivalent. This means that when part-time working

increases, the employment indicator in the wage survey rises more slowly than the same indicator in other data sources.

That the number of workers rose less as full-time equivalent is in line with the data in the labour force survey on full-time and part-time employment, which show that in the first half of 2019 it was the rise in the number of part-time workers that helped employment to increase (see Figure 10). In the first half of the year, 13.1% of those in employment were working part-time. The growth in employment through the rise in the number working part-time can be taken to mean that the high rate of employment and shortage of labour have led the labour market to take in permanent residents who for whatever reason cannot or do not want to work full-time, such as the older generations. The rapid rise in wages over several recent years in Estonia may also have increased the preference for leisure time. Cross-country comparison shows that people prefer to work less the richer they are (for more see Labour Market Review 1/2019). It should be noted here though that although the number of those in employment working part-time has risen and the number of hours worked per employee was down 0.9% on a year earlier, the change in the number of hours worked has actually been very small.

Figure 10. Change in the number of employees by full/part-time work

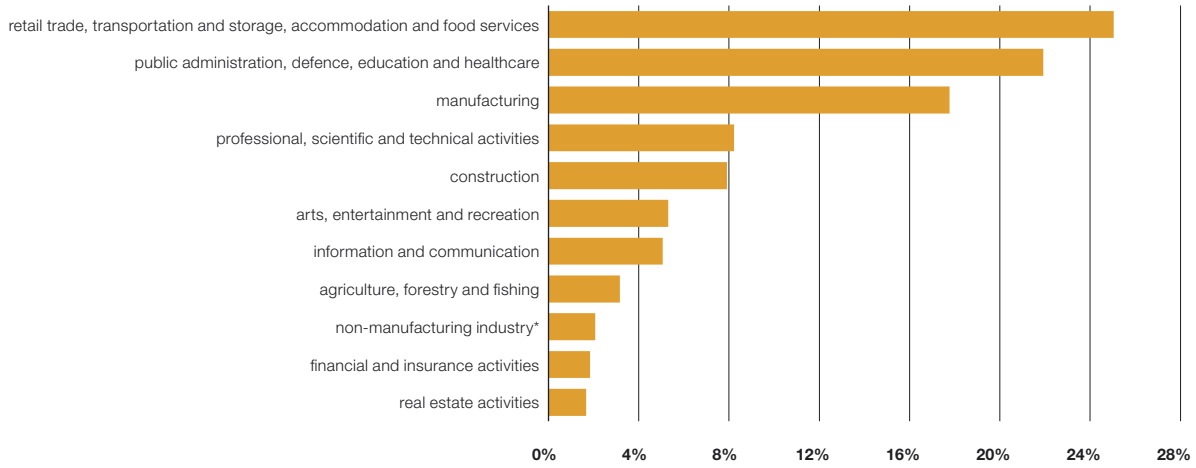


Sources: Statistics Estonia, Eesti Pank calculations

A quarter of those in employment in the first half of 2019 worked for companies in retail, accommodation and catering, and transport and storage (see Figure 11). Almost half of all those in employment worked for private companies in the service sector. The share of the employed working in these areas has increased strongly over a decade. A little less than a fifth of workers were employed in manufacturing, which is the largest exporting sector, and the share working in manufacturing has generally come down a little from year to year.

The labour force survey is a sample survey that is based on the survey responses of around 4500 people in each quarter. This means that the confidence bounds for the point estimates found by the labour force survey are quite wide. If the focus is narrowed to individual sectors, the confidence bounds for the point estimates become even wider because the number of observations is smaller. The wide confidence bounds mean that estimates of growth in employment can fluctuate because of statistical errors, which probably makes the growth in employment more volatile. For this reason it is important to compare the estimates from the labour force survey with those from other data sources.

Figure 11.Shares of total employment in economic sectors in the first half of 2019

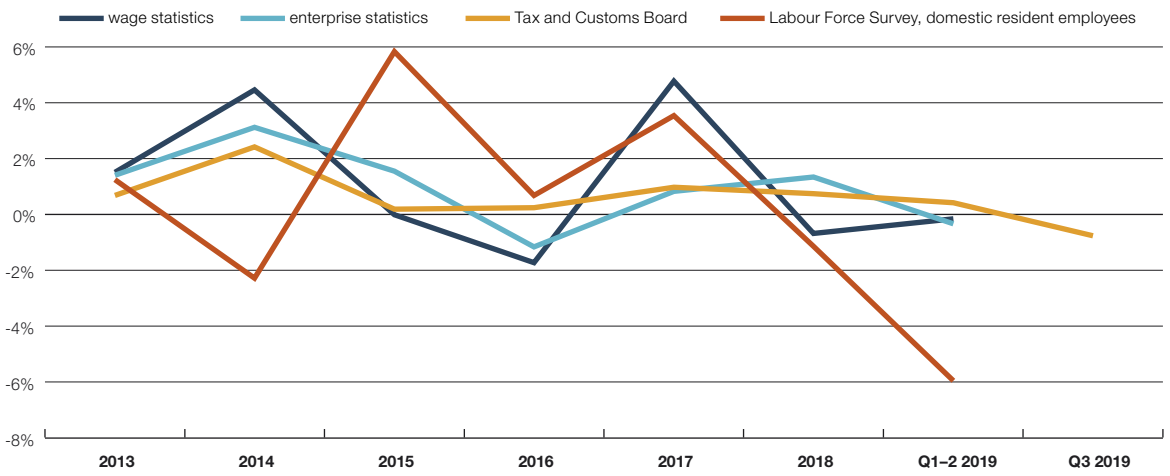


* mining; electricity, gas, steam and air conditioning supply; water supply; sewerage, waste management and remediation activities
Statistics Estonia, Eesti Pank calculations

Data from the labour force survey show that an average of 115,350 residents of Estonia were working in manufacturing companies in the first half of this year. This meant that employment of Estonian residents in the sector was around 7300 people, or 6.0%, below where it was a year earlier (see Figure 12). Employment started to fall over the year in manufacturing in the second quarter of 2018, though this came after a temporary growth spurt in 2017. At the same time, other data sources that also take in foreign labour working in Estonia indicate that the number in employment remained at the same level as a year earlier or even increased a little.

The data from the Police and Border Guard Board show there were 2938 current work permits allowing short-term work in manufacturing companies in the first quarter and 3912 in the second quarter, and these figures are 1991 and 2276 higher respectively than a year earlier. On average in the first half of the year there were two and a half times as many

Figure 12. Yearly change in employment in manufacturing in different data sources



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

current short-term working permits for manufacturing companies as there were a year earlier. This sharp rise in the number of short-term working permits indicates that demand for labour still remained strong in manufacturing in the second quarter. Where the short-term foreign workers are tax resident in Estonia, meaning that they work for a company in Estonia for at least six months out of 12 consecutive months, the growth in their numbers is also shown in the data of the Tax and Customs Board. It can be concluded from comparing the Police and Border Guard Board data on short-term work permits with employment indicators from other surveys that less local labour was used in manufacturing than last year, and jobs were filled with foreign workers. For more on the possible impact of migration on the Estonian labour market see Box 2.

The registry data of the Tax and Customs Board were the only employment survey to indicate that the number employed in manufacturing was still increasing in the first half of the year on average, but in the third quarter those data also indicated a fall in employment in manufacturing (see Figure 12). The majority of manufacturing output is exported, and the outlook for cross-border trade has darkened because of slower growth in the global economy in consequence of trade conflicts and because of the continuing uncertainty surrounding Brexit.

BOX 2

How migration affects the labour market

There have been more people moving to live permanently in Estonia than migrating abroad since 2015, and immigration exceeded emigration by 7000 people in 2018. On top of this were those who had come to work short-term in Estonia from outside the European Union, of whom 18,000 held current registrations in the second quarter of 2019. Those moving to Estonia for work help the development of the Estonian economy, but at the same time they compete to a greater or lesser extent with local workers, and in this way the immigration of foreign labour could affect the employment and wage growth of local residents. As immigration of labour is quite a new phenomenon in Estonia and has been little seen since independence was regained, it is hard to estimate precisely how it will affect employment and wages in Estonia. Comparing the experience of countries with a long history of labour immigration with the current situation in Estonia can give an indication of what impact immigration may have on the labour market.

Immigration may have a beneficial or harmful impact on employment and wage growth. Economic theory says that the impact of immigration should be analysed by whether the immigrant complements or replaces local workers. The options for local residents in the labour market may be improved if the skills of the immigrants start to complement those of the locals, for example by doing jobs for which there is not enough sufficient skilled local labour, but that need to be filled to avoid the development of a given sector being retarded. If however the skills of the immigrants start to compete with those of the local residents and to replace them, then the outlook for the local residents in the labour market will deteriorate.

The expansion of the European Union in 2004 made it possible for residents of the new, low-income member states to work in member states with higher incomes. The share of the population of the United Kingdom born in the European Economic Area increased from 1.5% in 2004 to 5.1% by 2017, though the impact of all this immigration on the employment rate, unemployment rate and average wage of the average resident of the United Kingdom was very small or even non-existent[3]. Employment of low skilled local workers did suffer though from the immigration of labour and their unemployment rate rose, while employment actually increased for local workers with higher professional skills. Immigration also has an impact along the wage distribution curve. The negative impact of immigration on wages appears to be focused among the local workers with low wages and poorer professional skills.

3 The conclusions on how immigration from the European Economic Area affected the labour market of the United Kingdom come from the report by the Migration Advisory Committee of the government of the United Kingdom published in September 2018 *EEA migration in the UK: final report*

The negative impact on wages was strongest in the United Kingdom among local residents who were themselves from an immigrant background. Local workers with an immigrant background are in a similar group for education and skills to the new immigrants, and so they compete for the same jobs. In this the conclusions from the United Kingdom match with the suggestions of economic theory that immigration worsens the outlook for those workers who may be replaced by immigrants, and improves the outlook for those who the immigrants complement, most notably high skilled workers.

While a large share of those moving to the United Kingdom to work can manage to speak English to a greater or lesser extent, those moving to Estonia and many other European countries find their entry into the labour market restricted because they cannot speak the national language. This is also true of Norway, where most jobs require a knowledge of Norwegian. The share of immigrants in private sector employment in Norway increased from 7% in 2004 to 17% in 2013, and the immigrants moved into jobs where it was less important to be able to speak the local language. There is a clear and direct link that the stricter the language requirements were for a particular job, the smaller the share of immigrants doing that job[4]. The jobs where the share of immigrants grew most notably and which had the least need for language skills saw wages rise by almost one fifth less over a decade than jobs that attracted the fewest immigrants.

Like in the United Kingdom, it was found in Norway that immigration had a negative impact on the welfare of earlier immigrants, with whom the new arrivals in the labour market started to compete most closely. Immigration had not harmed the welfare overall of local residents after a decade, because a large part of the locals who were affected by slower wage growth started slowly to move into other sectors with higher wages. It was also found in Denmark that the arrival of low-qualified immigrants increased the mobility of local workers with low levels of education, who made the move into jobs that demanded more complex skills. This actually raised the incomes of local workers with low education levels[5].

At a point where the employment rate for Estonian residents is very high and unemployment is very low, the growth in immigrant labour, mainly in the form of short-term foreign labour, has helped ease labour shortages in the past couple of years. This suggests that immigrant labour has so far mainly complemented local workers in the Estonian labour market. There is a danger in the future though that if some branch of the economy should suffer a setback and unemployment should rise there, companies in other branches of the economy may still hire foreign labour rather than taking on those Estonian residents who have lost their jobs in the part of the economy that is in difficulty. In this case the unrestricted hiring of foreign labour would replace local labour. Additional training and retraining needs to be made more effective to help those who have lost their jobs move into more successful sectors. Estonia has so far had only a couple of years of experience of immigration, during which time the economy has grown very fast and demand for labour has been strong. There is no experience yet to show who employers would prefer to hold on to if they have to reduce the headcount of employees.

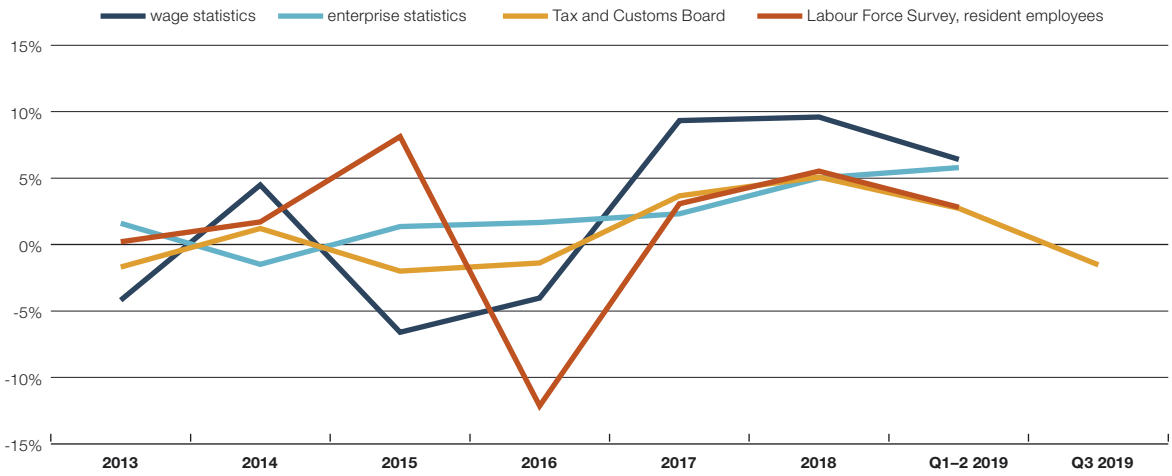
4 Bratsberg, B., Moxnes, A., Raaum, O., Ulltveit-Moe, K.-H. (2019). *Opening the floodgates: Immigration in the aftermath of the eastern enlargement*. Voxeu.org

5 Foged, M., and Peri, G. (2016). *Immigrants' Effect on Native Workers: New Analysis on Longitudinal Data.* American Economic Journal-Applied Economics 8, no 2:1–34.

The labour market survey showed that a little over 51,000 Estonian residents were working in construction companies based in Estonia in the first half of this year, or about 8% of all the Estonian residents in employment. This was 1400 Estonian residents, or 2.8%, more than in the first half of last year (see Figure 13). The number of people employed in construction and paying Estonian labour taxes increased at the same rate in the data of the Tax and Customs Board. Data from companies show that growth in employment in construction was more than twice as fast at the start of this year though. The enterprise statistics cover all of the people working in companies based in Estonia whether or not their labour taxes are paid to Estonia.

Data from the Police and Border Guard Board show that more than a third of the short-term workers in Estonia in the first half of the year were employed at companies in construction. The number of work permits permitting work in construction was also much higher than

Figure 13. Yearly change in employment in construction in different data sources



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

a year earlier, as there were 2237 such permits in the first quarter of 2018 and 3123 in the second quarter, while there were 4580 in the first quarter of this year and 6223 in the second quarter. As the labour force survey data on employment of Estonian residents and the Tax and Customs Board data for growth in employment in construction are very similar while the enterprise statistics indicate faster growth in employment, it may be assumed that a large part of the additional short-term labour that was added this year has come to work for less than six months. This means that their labour taxes are not paid to Estonia and they do not show up in the labour force survey or the Tax and Customs Board employment data, but only in the enterprise statistics.

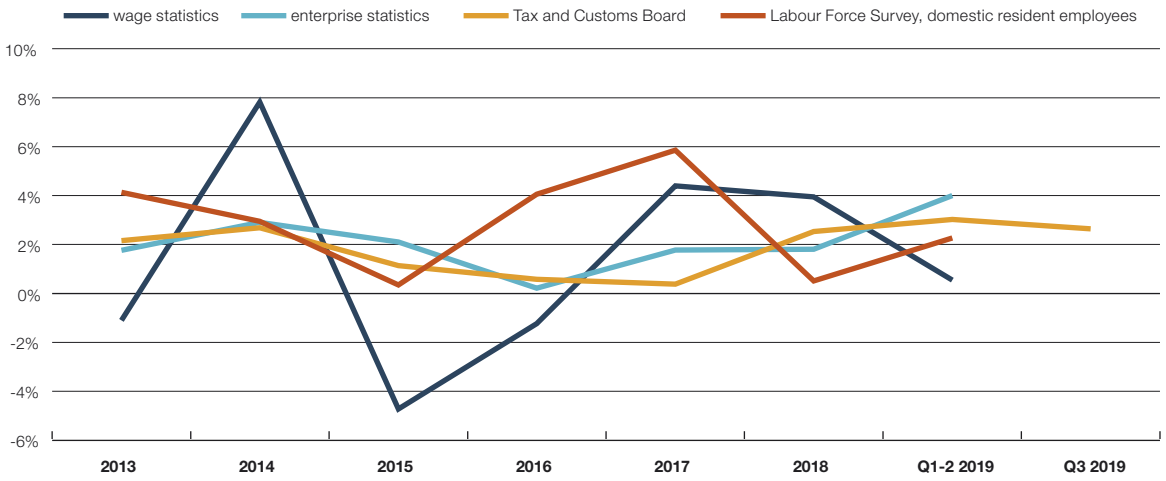
The short-term future of construction companies has become cloudier, like that of manufacturing. Construction companies are trying to cope with falling demand for construction investment (for more see the section on vacancies and labour mobility) and the Tax and Customs Board data show that employment in construction companies fell in the third quarter.

The majority of the growth in the Estonian economy in the first half of 2019 came from the very good performance of private sector services[6]. The good performance of services meant that employment grew faster in those areas (see Figure 14). Almost 260,000 residents were working in private sector services in the first half of the year. Like in manufacturing, there were more than two and a half times as many current working permits issued for work at companies in services in the first half of the year as there were a year earlier. The rapid rise in the number of short-term working permits is reflected in the growth in employment in the service sector in the data from the Tax and Customs Board and in the enterprise statistics, as it was almost double the rise in employment for Estonian residents in those sectors in the first half of the year. Unlike in manufacturing and construction, the number employed in services continued to rise quickly in the third quarter.

The employment rate, which is the share of the working aged population aged 15-74 in employment, averaged 67.8% in the first half of 2019 (see Figure 15). The rise in the number

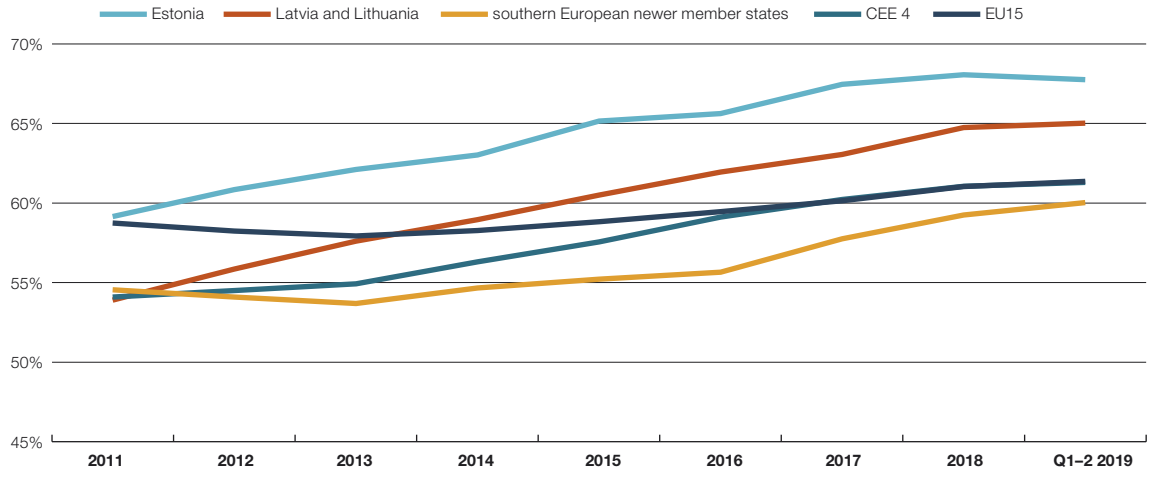
6 Wholesale and retail trade, transportation and storage, accommodation and catering, information and communications, science and research activities, real estate activities, and administrative and support activities.

Figure 14. Yearly change in employment in private sector services in different data sources



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

Figure 15. Employment rate



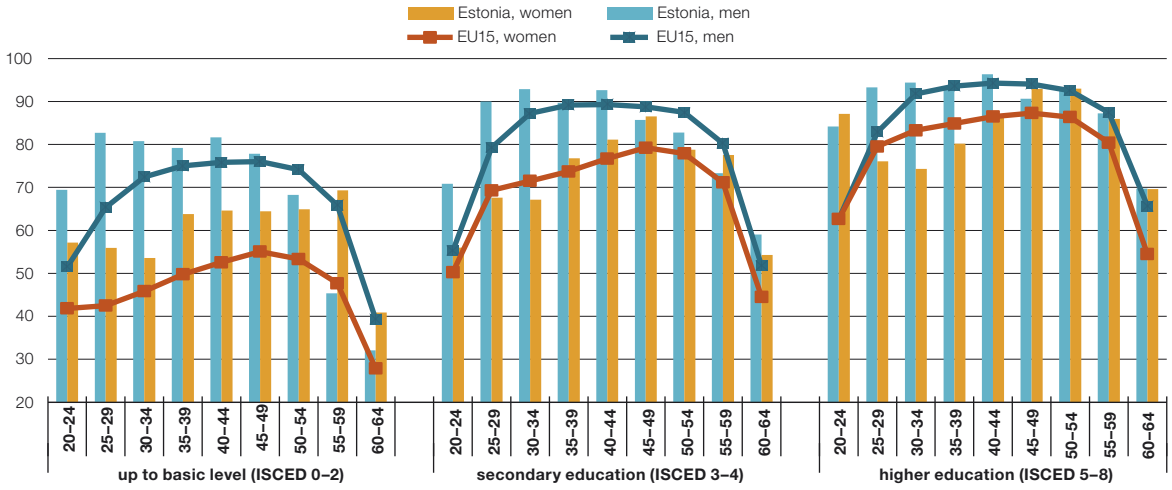
Sources: Eurostat, Statistics Estonia, Eesti Pank calculations

in employment helped the employment rate rise 0.4% above where it was a year earlier. The share of those aged 50-74 in employment rose more rapidly in the first half of the year than it did in 2018, while the share of those aged 15-24 declined. The share of the working age population in employment in Estonia has been one of the highest in the European Union for several years now, with only Sweden and the Netherlands slightly ahead. In the same way that it has in Estonia, the rise in the unemployment rate has slowed with the cooling of growth in the economy in many other European Union countries.

In contrast to the old member states of the European Union, the distribution of the employment rate in Estonia has particularly favoured younger age groups and older age groups for women. A significant factor for the young is that labour force participation has increased in recent years and the state of the labour market has made it more possible to find a job, which has lowered the youth unemployment rate. Equally, the employment rate in Estonia is higher across the age curve for women with low levels of education (see

Figure 16). The employment rate in Estonia remains below the average for the EU15 for men aged 45-59 and women aged 25-39. Health factors probably play a role in the figures for men, as the life expectancy of men in Estonia is still notably lower than it is in the EU15 countries. The effect for women arises because they are able to take a relatively long time out of the labour market after the birth of a child.

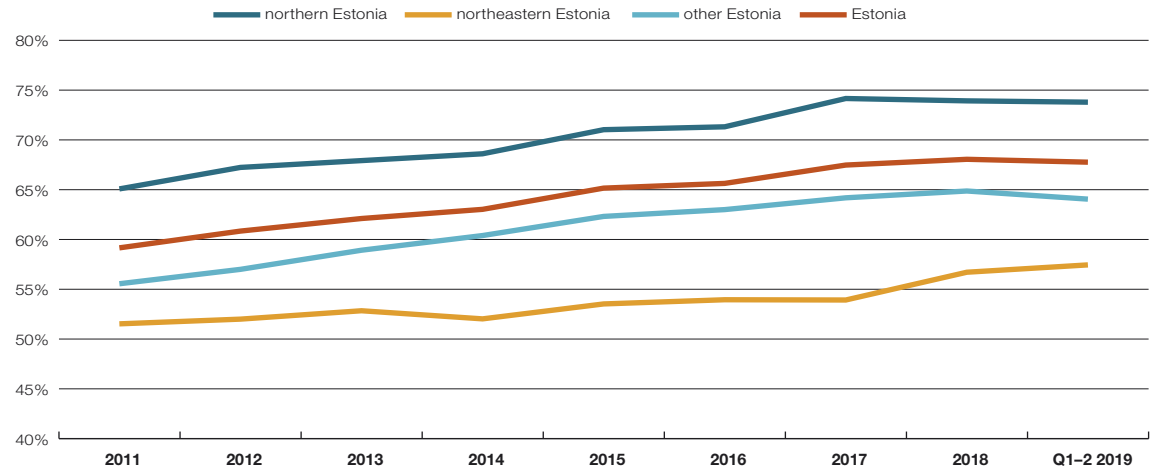
Figure 16. Employment rate by gender, age group and level of education in Estonia and the EU15 in 2018



Sources: Eurostat, Eesti Pank calculations

The employment rate is very high in Estonia on average, but there are still differences between different regions (see Figure 17). In northern Estonia, where some three quarters of residents of working age are in employment, the employment rate has remained essentially unchanged for the past two and a half years. Elsewhere in Estonia the employment rate continued to rise last year, but this year the share of those in employment stopped rising everywhere except north-east Estonia. This can partly be explained by the regional differences in the age distribution, as workers in northern Estonia are on average younger, largely because people who are younger than the average migrate there from abroad and from other parts of Estonia.

Figure 17. Employment rate in Estonia

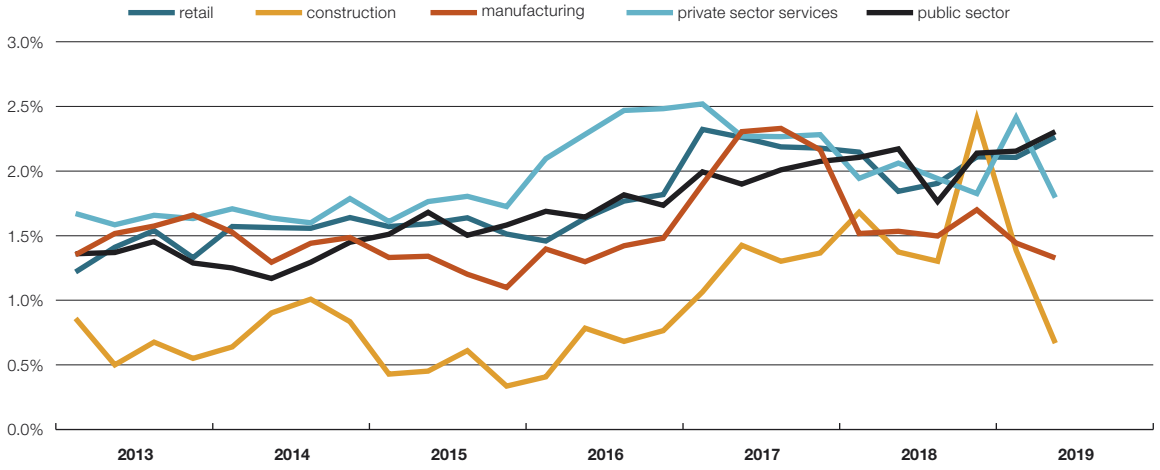


Sources: Statistics Estonia, Eesti Pank calculations

Vacancies and labour mobility

The labour mobility survey shows that the ratio of vacancies to the total number of jobs was the same on average in the first half of 2019 as a year earlier. A little less than two of every hundred jobs were unfilled. As with employment, the performance was better in the first quarter than in the second, and the vacancy rate in the second quarter was lower than a year earlier. The vacancy rate climbed highest in information and communications, which was the sector with the highest share of vacancies, while there were markedly fewer vacancies than the average in real estate activities. The vacancy rate also rose in the public sector (see Figure 18). The vacancy rate fell most in energy and construction. The energy sector is suffering because European climate policy has made oil shale electricity less competitive, while construction companies are being restrained by falling demand moving forwards.

Figure 18. Vacancy rate, seasonally adjusted



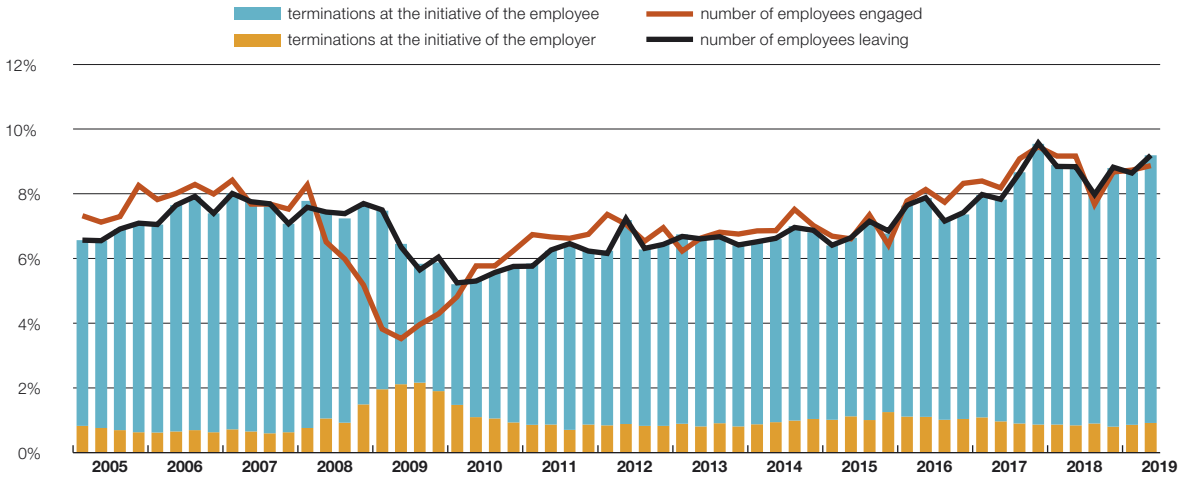
Sources: Statistics Estonia, Eesti Pank calculations

Alongside the labour mobility survey, data from Töötukassa also show the number of positions unfilled has fallen. There were notably fewer positions offered through Töötukassa in the first half of 2019 for skilled workers and artisans, machinery and equipment operators, and unskilled workers than a year earlier. There was more demand than earlier for service staff and sales staff, indicating that the service sector continues to do well. From January to the end of August there were 2200 fewer workers sought through Töötukassa than in the same months of the previous year.

That labour shortages have peaked is also indicated by data on the numbers moving into and out of jobs (see Figure 19). The churn of employees remains very large, but the number of people moving into and out of work relative to the number in employment no longer rose in the first half of 2019 from earlier.

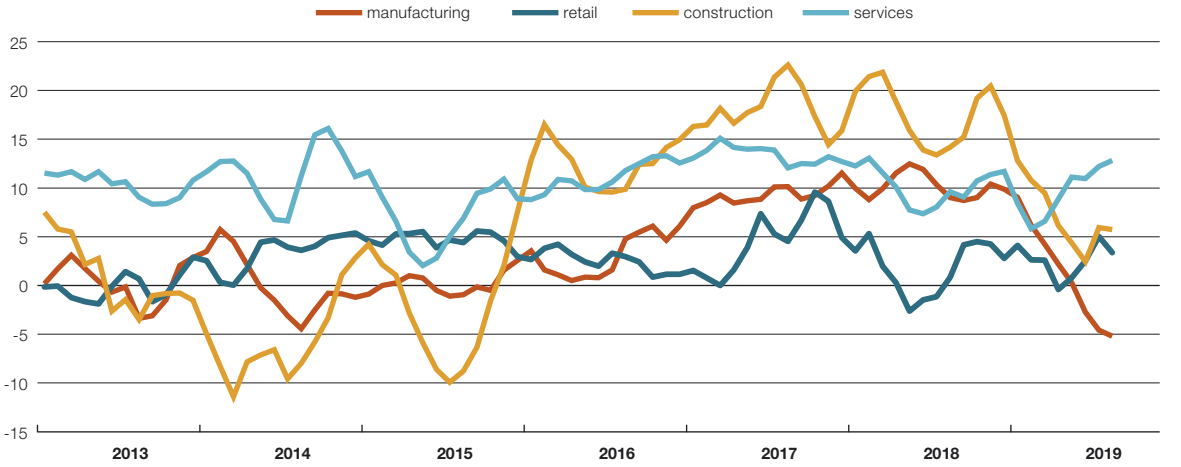
The employment expectations indexes in the survey by the Estonian Institute of Economic Research can help in assessing the future plans of companies to hire, as they show future developments in demand for labour. On top of the sharp reduction in the number of vacancies in construction, the expectations of employers for future growth in employment have become much more pessimistic (see Figure 20). In the middle of this year there were only just more construction companies that expected employment to continue growing than there were companies that expected it to decline. The share of construction

Figure 19. Labour mobility, seasonally adjusted



Sources: Statistics Estonia, Eesti Pank calculations

Figure 20. Employment expectations*, three-month moving average



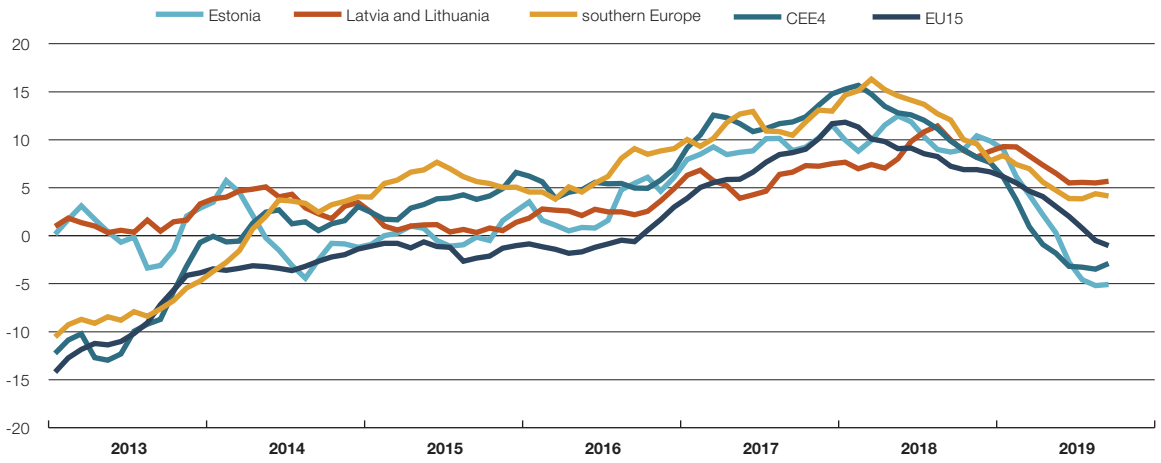
* The index shows the balance of companies expecting employment to rise or fall

Sources: European Commission, Eesti Pank calculations

companies experiencing a lack of demand has increased rapidly in recent months, and the general government, which has supported investment in construction in recent years, is taking a more modest line in construction investment this year and next.

Employment expectations have also become sharply more pessimistic in manufacturing as well as in construction, as the number of employers expecting the number in employment to fall has in recent months overtaken the number expecting employment to rise. Expectations for employment and output in manufacturing have been affected by the trade conflicts that have reduced cross-border trade flows around the whole world. The economic outlook for Europe is further threatened by the uncertainty that still continues to surround Brexit. In consequence the employment expectations for manufacturing have become worse across the whole of Europe (see Figure 21). It is notable that the decline in expectations for employment in manufacturing in Latvia and Lithuania has been substantially more moderate than elsewhere in Europe.

Figure 21. Employment expectations* in manufacturing, three-month moving average

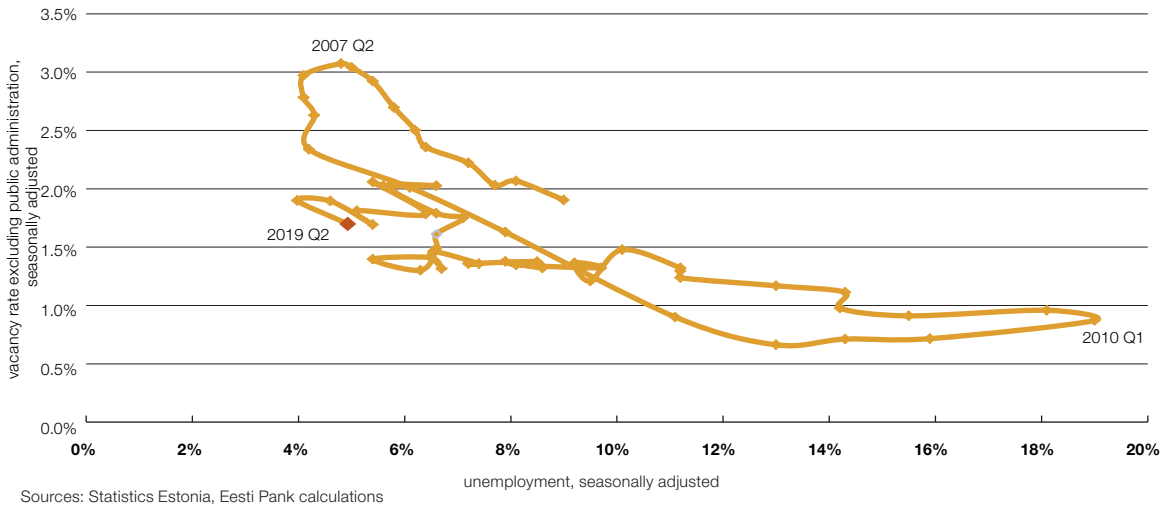


* The index shows the balance of companies expecting employment to rise or fall
Sources: European Commission, Eesti Pank calculations

While the outlook for continued growth in employment in industry and construction has become more pessimistic, the outlook in services and retail has remained about the same as it was last year. The performance of the service sector is affected by the growth in household disposable income and in household confidence rather than by the external environment, as it is households that make consumption decisions. As the cooling economy is reflected in growth in employment and wages with a lag, demand for services has remained strong, and this in turn supports the expectations of employers in services.

The match between vacancies and workers can be illustrated by the Beveridge curve (see Figure 22). Over the business cycle there is an inverse relationship between unemployment and the vacancy rate. Unemployment is high during bad times and the vacancy rate is low, as companies do not want to take on additional employees and vacant positions are filled quickly. During good times though there is a shortage of available labour, employers look to

Figure 22. The Beveridge curve



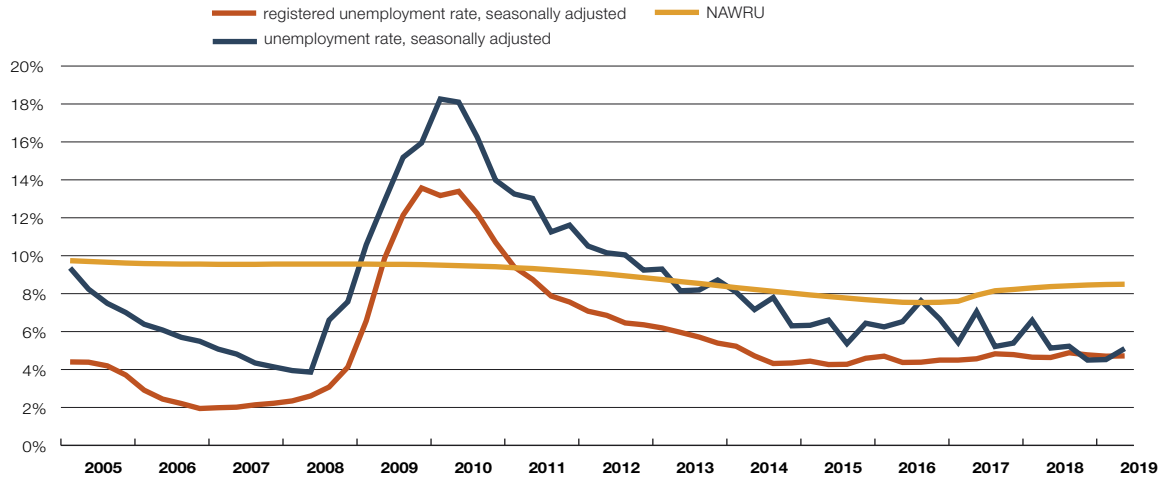
Sources: Statistics Estonia, Eesti Pank calculations

hire additional staff and positions remained unfilled for longer. If the curve moves closer to the intersection of the axes, the match between vacancies and available labour has become more efficient. The figure shows that in recent years the vacancy rate has remained lower than it was when the unemployment rate was at a similar level before the financial crisis. This also means that the natural rate of unemployment in Estonia has come down over time. In 2007 it was estimated to be around 10%, but now it is estimated at 8.5%.

Unemployment

The share of the Estonian residents participating in the labour market who are unemployed has become very small. The labour force survey shows that in the first half of 2019 there were on average 34,050 unemployed people permanently resident in Estonia, which was 7550, or around a fifth, fewer than a year earlier. The unemployment rate fell from 6.0% in first half of 2018 to 4.9% in the first half of 2019. It climbed slightly during the first half of 2019 though, rising from 4.7% in the first quarter to 5.1% in the second (see Figure 23). The age group where unemployment fell fastest was the 50-74 age group, and this, together with the steady rise in the participation rate for older age groups, means that older people are able to stay in work for longer and are finding an appropriate way to do so. The unemployment rate has fallen quite evenly across Estonia.

Figure 23. Unemployment



Sources: Statistics Estonia, Töötukassa, Eesti Pank

Wages growing faster than productivity indicates that the unemployment rate was still lower in early 2019 than the equilibrium unemployment rate (see Figure 23). The equilibrium unemployment rate or the NAWRU rate is when labour shortages do not cause wage growth to accelerate in the economy. It is usually high if there are a lot of people unemployed in the labour market whose skills or place of residence do not suit the requirements or location of jobs that are being created. As wage growth has exceeded productivity growth for several years now, Eesti Pank estimates that equilibrium unemployment has been higher than the headline unemployment figure since 2014. The equilibrium unemployment rate was raised in 2017 and 2018 by the Work Ability Reform, which brought people into the labour market who were partially able to work, and who needed longer than usual to find a job. In recent years Eesti Pank has several times recalculated the equilibrium unemployment rate downwards following the impact of the Work Ability Reform, indicating that the reform has been successful.

When the equilibrium unemployment rate is substantially below the actual unemployment rate, there should be strong wage pressure. Although wage growth remains quite fast in Estonia, the hiring of short-term foreign labour has helped to prevent labour costs from rising even faster.

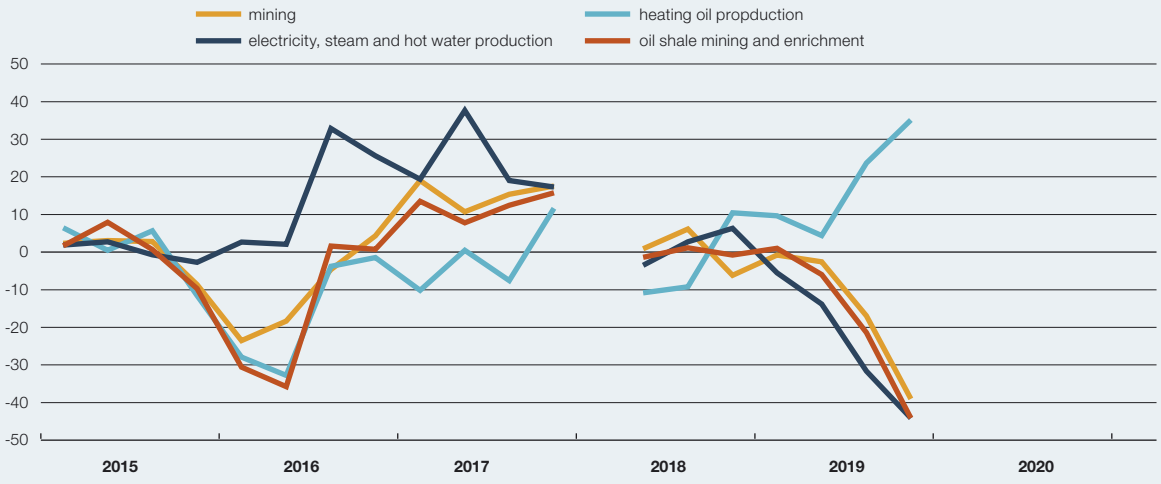
Like the labour force survey, the data from Töötukassa indicate that the number unemployed fell in the first quarter and the start of the second, but the number registered as unemployed started to rise from May and June. The number registered as unemployed at the end of the second quarter in June was higher than a year earlier by 851, or 2.9%. Unemployment grew most in the second quarter among men. The number registered as unemployed continue to rise in the third quarter, and was up around 6% over the year in July and August. At the end of September there were 2174, or 7.5%, more people registered as unemployed across Estonia than a year earlier. Data from Töötukassa show the rise in unemployment has been driven by problems in the energy industry, and also by the return to the members of company management boards of the right to claim unemployment insurance benefits.

Box 3: Comparison of the oil shale production crises in 2016 and 2019

Oil shale production is the overarching name for the mining of oil shale and the production of electricity, heat, oil and chemical products from it. Oil shale production provides a large part of the mining sector and the electricity, gas, steam and conditioned air sector in Estonia, but it also affects other branches of industry that enrich oil shale such as the production of oil and chemical products. Oil shale production provided 4.9% of Estonian GDP in 2018 at current prices. It is geographically concentrated in Ida-Virumaa, which is where the oil shale deposits are. This box compares how the large fall in the oil price in 2016 and the rise in prices of CO_2 quotas in 2019 affected the labour market in Ida-Virumaa and the rest of Estonia. Both cases were negative shocks that made the Estonian oil shale sector less competitive. The price of oil on global markets affects the price of oil shale oil, because it sets the price of alternatives to shale oil. The price of CO_2 quotas directly affects the cost of electricity production.

Oil shale mining in Estonia declined in reaction to both shocks, and so in consequence did production of oil and electricity. Figure B3.1 illustrates how output volumes for oil shale mining and enrichment were on average 45% lower in the second quarter of 2019 than in the previous year before the crisis, and this drop was of some 10 percentage points more than the loss in 2016. The figure also shows that oil and electricity production are alternatives to the use of oil shale.

Figure B3.1. Output volumes in oil shale production (2015–2017: 2015 = 0; 2018–2019: 2018 = 0)



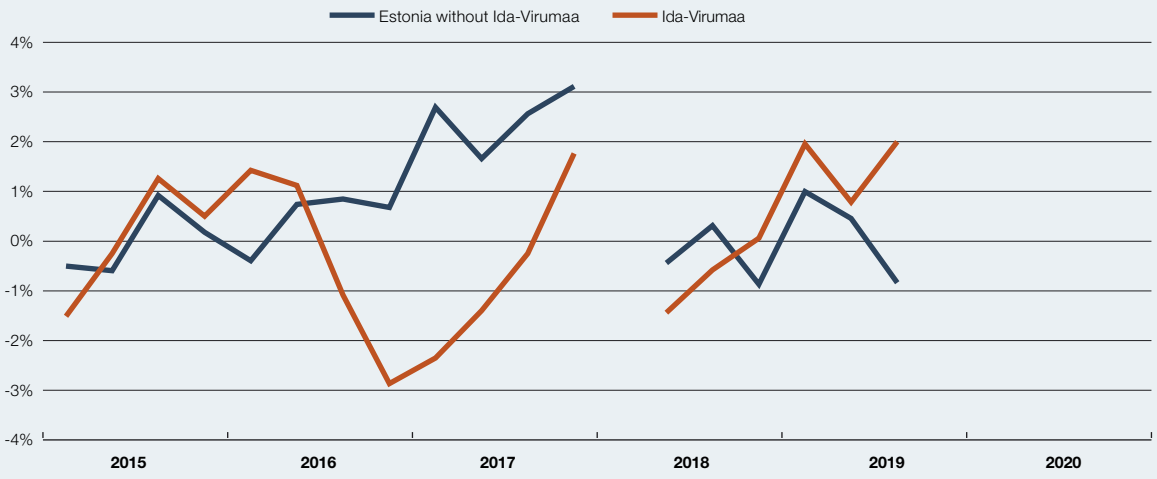
Sources: Statistics Estonia, Eesti Pank calculations

Difficulties in oil shale production affect the labour market in Ida-Virumaa above all. There are four companies that mine oil shale in Estonia, and they are Eesti Energia, VKG, Kunda Nordic Tsement and Kiviõli Keemiatööstus. Data from the Tax and Customs Board show that 2800 people were working in mining Ida-Virumaa in 2018 while some 1500 people worked in companies involved in electricity production, and together they accounted for 10% of all the employees in the region. There are a further 10,000 or so people employed at other industrial companies that are linked to oil shale production, and this totals 23% of employment in the region.

The impact of a reduction in output in the oil shale sector can be seen as a wave that starts with companies directly handling oil shale and moves further through companies indirectly connected to oil shale and on to other branches of the economy. Oil shale companies have less need for labour and reduce their number of employees. The biggest cut in 2016 was the 479 employees who were made redundant at VKG, of whom 210 were rehired in 2017. In the first three quarters of 2019 however, the reduction in electricity production led the Eesti Energia Group to cut some 500 jobs, with 324 more scheduled to go before the end of the year. The number of redundancies increased by more in 2016 though, as data from Töötukassa show that redundancy benefit, which is paid to people who have worked for at least five years at the same company, was paid to 1170 people more in 2016 than on average in the previous three years. The number receiving redundancy benefit in Ida-Virumaa increased by 43%, while in the rest of Estonia it increased by 14%. In 2016 there were 2268, or 30%, more people who registered as unemployed because they had lost their jobs through redundancy than on average in 2013-2015. In the first three months of this year the amount of redundancy benefit paid by the state has not increased year on year, but 6% more people have registered as unemployed through redundancy than last year.

The fall in demand for labour in 2016 also showed up in the employment rate in Ida-Virumaa, which fell by around three percentage points by the end of 2016 (see Figure B3.2). Without the impact of the crisis, developments in Ida-Virumaa would have been similar to those in other regions of Estonia, but the impact was in fact larger as the employment rate elsewhere in Estonia rose at the same time. Output volumes for oil shale production were down in the first half of 2016, but employment reacted only in the second half of the year according to the data from the labour force survey. In this sense it is unsurprising that there has been no particularly evident sign of any change in employment in the first half of 2019.

Figure B3.2. Employment, seasonally adjusted (2015–2017: difference from the 2015 average; 2018–2019: difference from the 2018 average)



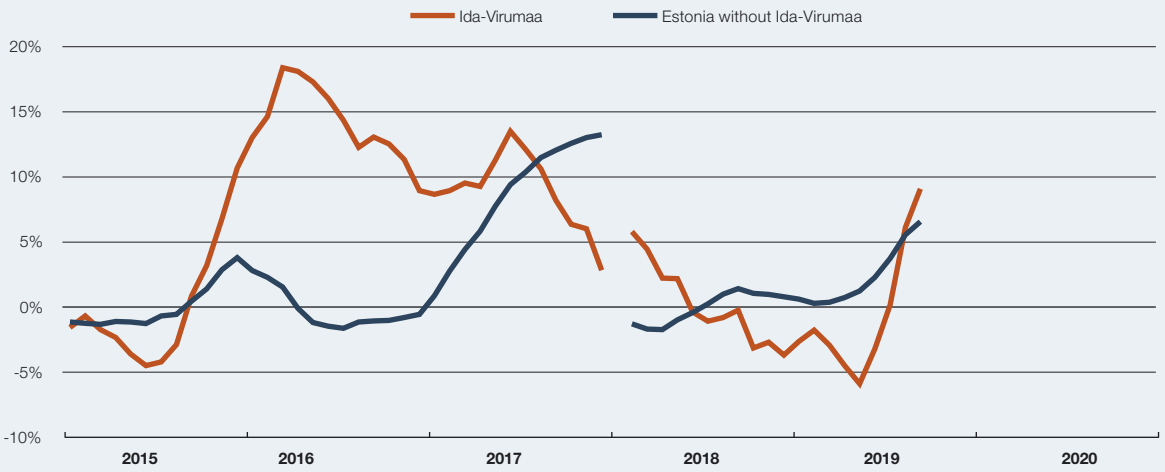
Sources: Statistics Estonia, Eesti Pank calculations

The confidence bounds of the labour force survey estimates by quarter and by region are quite wide, and so it is best to compare them with assessments from some other data sources as well. Data from the Tax and Customs Board on wages paid out confirm the findings of the labour force survey, as the share of the working age population receiving a gross income in Ida Virumaa fell on average in 2016 by almost one percentage point from the previous year, while in all other regions it rose.

Income declarations from companies indicate that although the number employed at companies permanently registered in the Ida-Virumaa region has not fallen, the growth in employment seen in the rest of Estonia in the first half of the year was not mirrored there either.

Some of those who lose their job exit the labour market, while some start to look for a new job. The number registered as unemployed was a little more than 16% higher in the first half of 2016 in Ida-Virumaa than the average for the previous year. Throughout 2019 there have been no great differences between Ida Virumaa and the rest of Estonia, and the numbers registered as unemployed have been similar (see Figure B3.3).

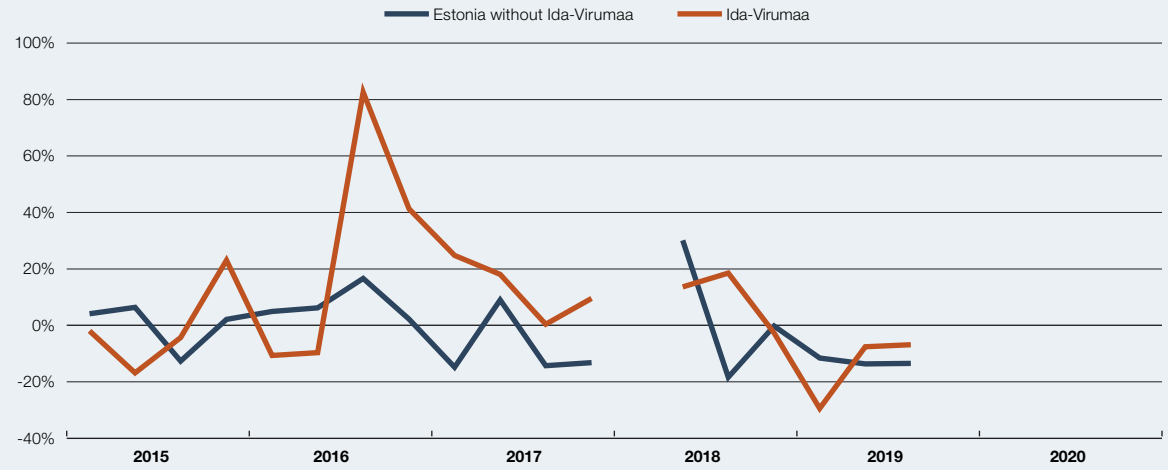
Figure B3.3. Registered unemployment, seasonally adjusted (2015–2017: difference from the 2015 average; 2018–2019: difference from the 2018 average)



Sources: Töötukassa, Eesti Pank calculations

The unemployment rate found from the labour force survey data reacts to a shock somewhat later than registered unemployment does. In 2016 the number of unemployed rose by more in Ida-Virumaa than elsewhere in Estonia. In the first half of 2019 the number unemployed was still no higher than it was in the previous year (see Figure B3.4).

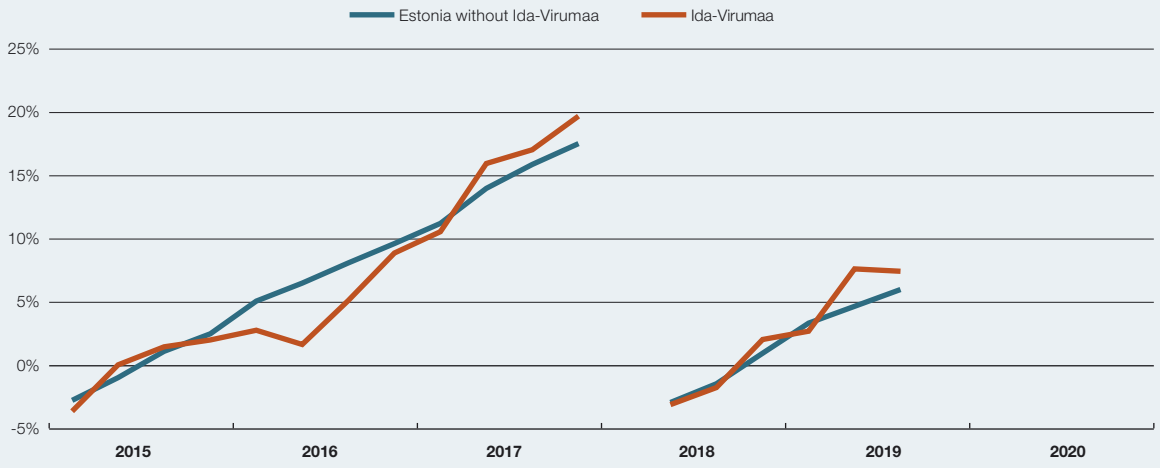
Figure B3.4. Number in unemployment, seasonally adjusted (2015–2017: difference from the 2015 average; 2018–2019: difference from the 2018 average)



Sources: Statistics Estonia, Eesti Pank calculations

If the amount of labour available in the region increases and few new jobs are created, there should be an impact on wage rises too, and in 2016 wage growth was slower in Ida-Virumaa than in other regions from the very start of the year. In the first quarter of 2019 meanwhile, the average gross monthly wage in Ida-Virumaa rose even faster than the average elsewhere in Estonia, though in the second quarter of the year this growth slowed (see Figure B3.5).

Figure B3.5. Growth in the gross monthly wage, seasonally adjusted (2015–2017: difference from the 2015 average; 2018–2019: difference from the 2018 average)



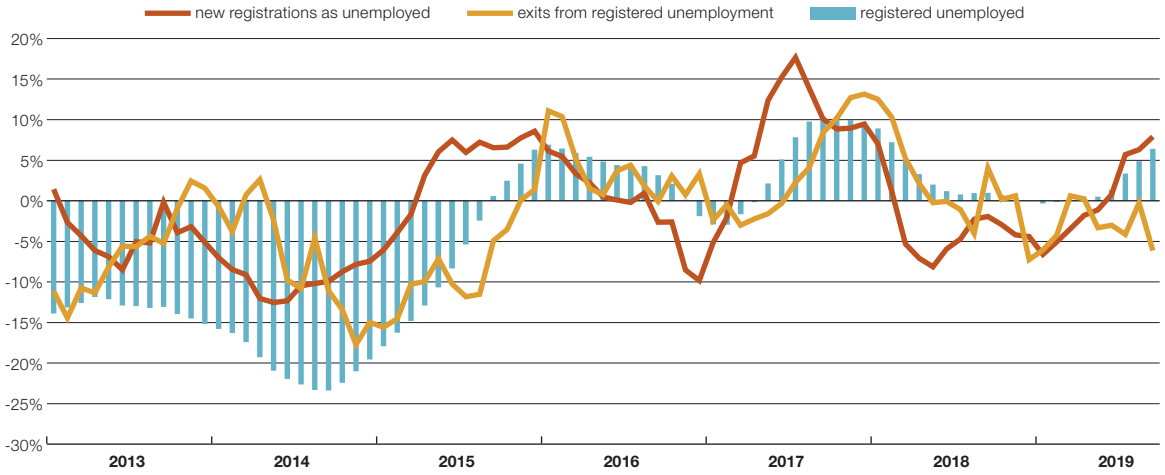
Sources: Statistics Estonia, Eesti Pank calculations

Both the fall in the oil price in 2016 and the rise in the price of CO_2 quotas in 2019 were shocks that made oil shale production less competitive. In both cases oil shale mining declined on average by a third from the level of the previous year in the six months after the crisis erupted. The crisis of 2016 had a notable impact on the labour market in Ida-Virumaa through employment, unemployment and also wage growth. Data for the first six months of 2019 also indicate signs of cooling appearing in Ida-Virumaa, but the labour market there has not yet felt the full force of the decline. The recovery of the oil shale sector in 2016 was partly aided by the rapid rebound of the oil price by a third from its lowest point. Profitability was also helped back up by the government's decision to change its environmental fees. Unlike oil prices, however, the price of a CO_2 quota is largely determined by the European Union's climate policy, so no drop in price back to earlier levels can be expected. At the same time, the government has decided that the capacity of the Narva power plants to cover the average demand for energy in Estonia must be maintained until 2023, which means that there will be no exit from oil shale mining yet. However, it is expected that the contraction of the sector that has already started will affect the Ida-Virumaa labour market further in the future. For the recovery to be smooth, it is important that people remain motivated to look for a new job and to learn any new skills they may need.

Registered unemployment can rise if more newly unemployed are added, but also if those who have become unemployed are not exiting unemployment as quickly as before. Although the number newly registered as unemployed has risen from month to month, the number unemployed has also risen in the past couple of months because the people who have registered are not finding solutions in the labour market as quickly as before, meaning that fewer are moving out of unemployment than earlier (see Figure 24).

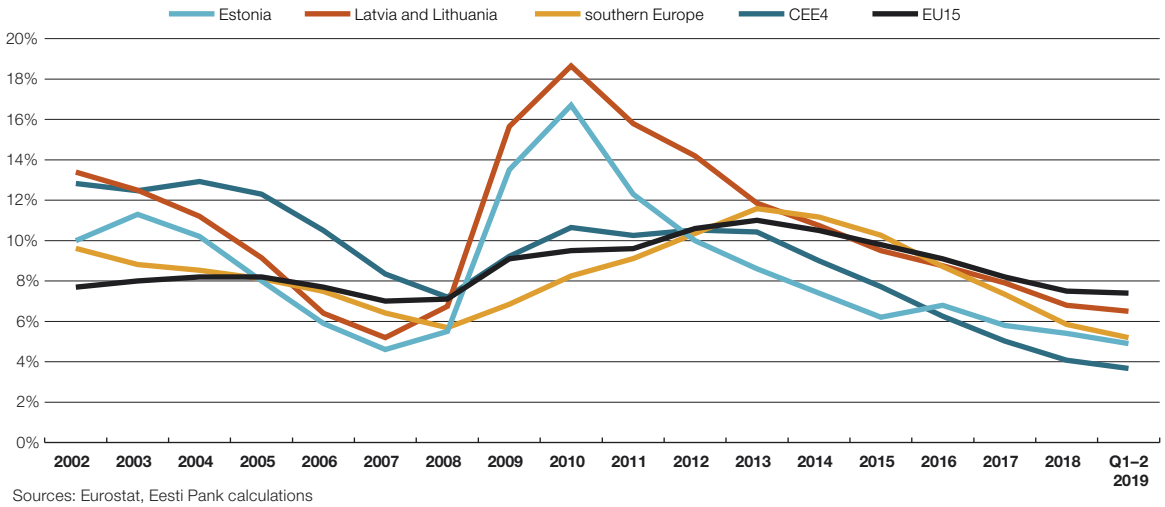
Unemployment stopped falling as fast in Estonia from 2017, partly because of the Work Ability Reform (see Figure 25). The unemployment rate in Estonia has now fallen almost as low as during the previous period of very rapid economic growth 12 years ago, but the Work Ability Reform has brought a lot more people into the active labour market, for whom

Figure 24. Yearly growth in the number registered as unemployed and in exits from unemployment, three-month moving average



Sources: Statistics Estonia, Töötukassa, Eesti Pank calculations

Figure 25. Unemployment rate, ages 15–74



Sources: Eurostat, Eesti Pank calculations

it is not easy to find a suitable job. This then holds the unemployment rate higher than it would have been without the Work Ability Reform. The unemployment rate in several other parts of Europe has now fallen as low as it was in 2006-2008, or even lower.

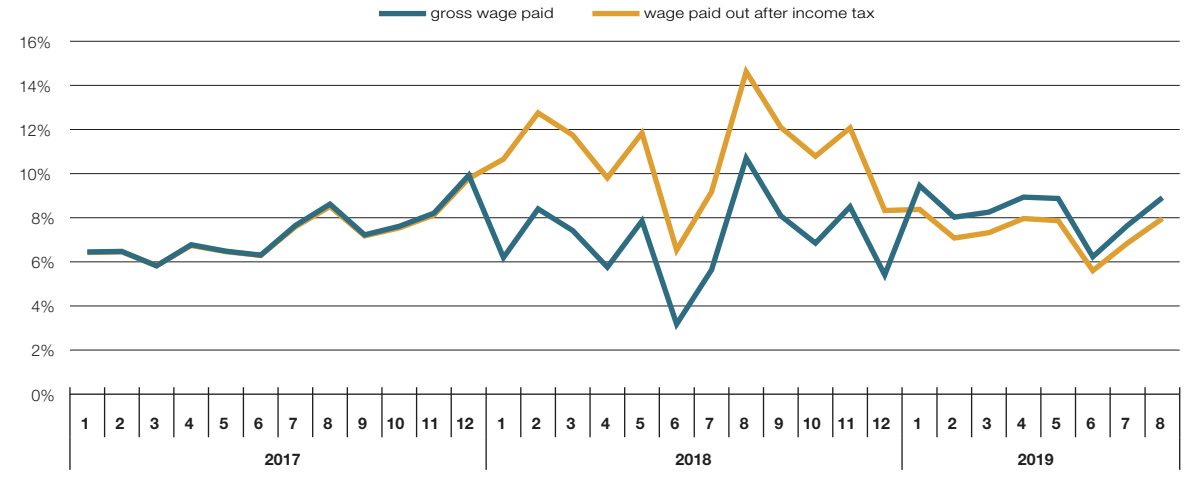
WAGES AND UNIT LABOUR COSTS

Average wages

The rate of wage growth slowed from 8.2% in the second half of 2018 to 7.7% in the first half of 2019, as it was 8% in the first quarter and 7.4% in the second. Slower growth in wages is in line with the fall in corporate expectations for employment and the general slowing of growth in the economy. It is probable that slower growth in the economy will reduce wage pressures in the quarters ahead as well. While demand for labour has grown more slowly, looser restrictions on the supply of labour in certain branches of the economy have made it easier to hire foreign labour, and this has also reduced wage pressures.

The tax-free income threshold and the boundaries at which it is reduced remained at the same level in 2019 as in 2018, and so the average net wage grew more slowly this year than the gross wage, and the labour tax wedge increased. If all wage earners used their monthly tax-free minimum allowance in full and wages were only taxable income, then data from the Tax and Customs Board on the wage distribution indicate that the average net amount declared as wages increased more slowly than the gross amount by some 0.9 percentage point (see Figure 26). A rise in the effective tax rate means that when a rise in the cash-in-hand wage is agreed in wage negotiations, the gross wage has to be increased by that much more.

Figure 26. Growth in the average gross and net wage paid out

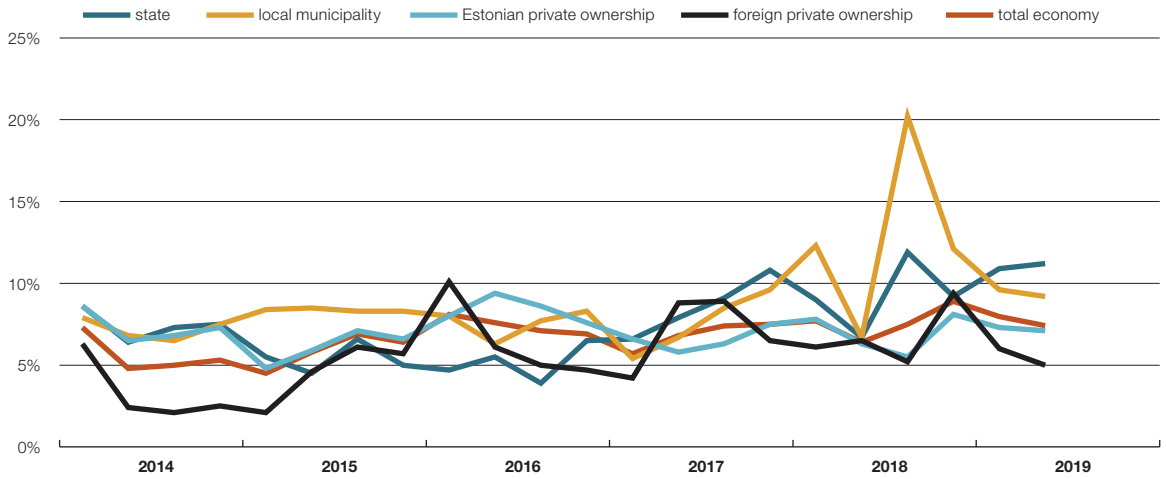


Sources: Tax and Customs Board, Eesti Pank calculations

The average wage in the public sector rose faster in the first half of 2019 than that in the private sector. Wage growth in public administration accelerated, while that in local administration slowed a little (see Figure 27). The main source of wage pressures in the public sector is the deepening shortage of labour, as the vacancy rate in healthcare, education and public administration has consistently risen and continued to do so in the first half of 2019 (see Figure 18). The explanatory note to the 2020 state budget states that the Fontes wage survey found that the monthly basic salary in state institutions was on average 14.5% behind the median of the private sector in 2018[7]. This estimate was reached by comparing wages for similar jobs in the state and private sectors. Upwards pressure on wages is increased by the shortage of labour in the public sector and by the small size of the young generations entering the labour market, which makes it harder to take on new

7 See the explanatory note to the 2020 state budget, page 42.

Figure 27. Change in gross wage by type of ownership

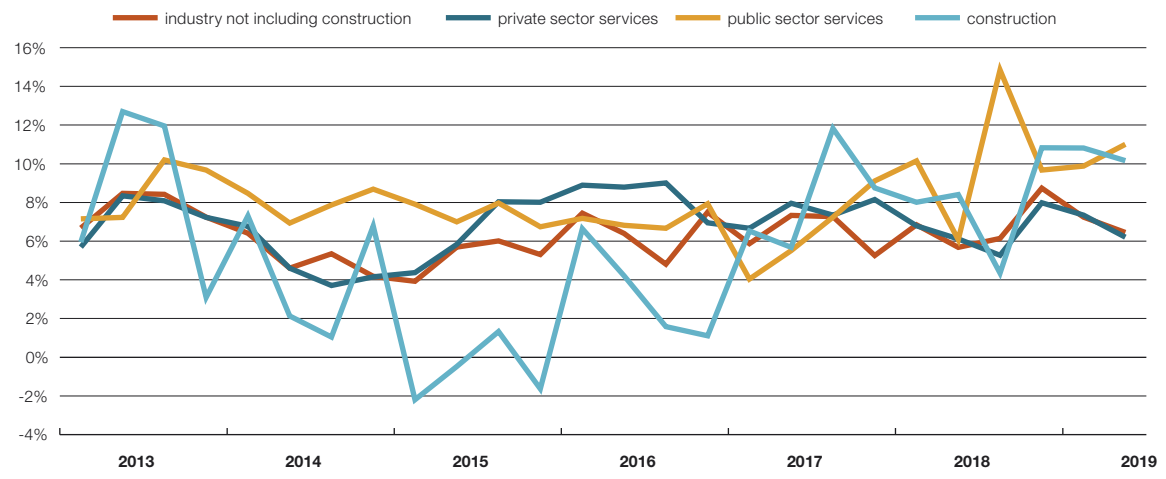


Sources: Statistics Estonia, Eesti Pank calculations

employees. Data from the Tax and Customs Board show that wages continued to rise in the third quarter of 2019 at a similar rate to that of the first half of the year, though in the longer term wage rises in the public sector in 2020 will be limited by the need to limit the growth in spending in the state budget.

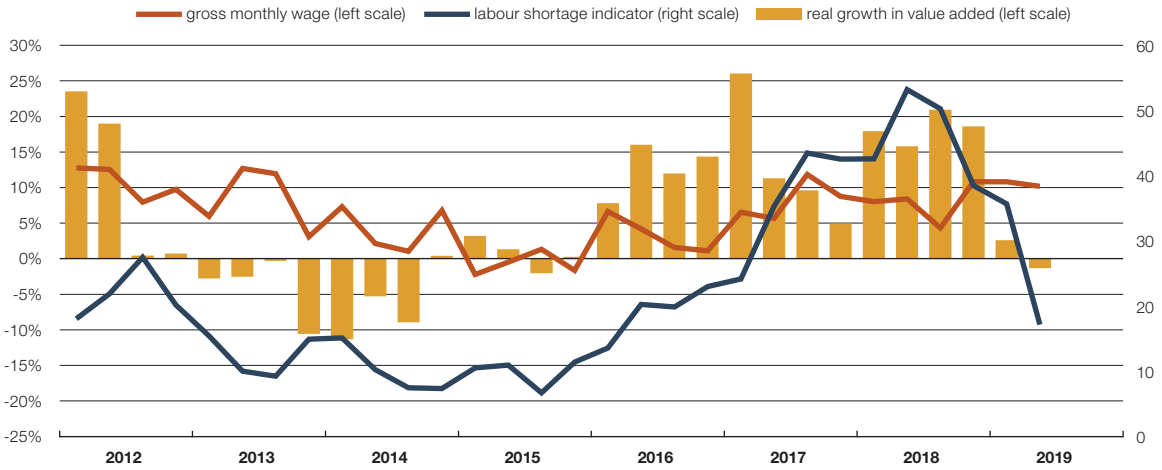
Wage growth in the private sector was fast in construction in the first half of 2019 (see Figure 28), but the growth in value added and output in construction has slowed markedly this year (see Figure 29). As previously noted, the number working in construction rose at the start of this year, and there was a sharp rise in the amount of foreign labour employed on construction sites. The expectations of employers in construction for employment in the future are much more pessimistic, and the lack of demand has started to replace labour shortages as the factor inhibiting expansion of production. Neither will investment by the state support growth in the construction sector in 2020. Given that the construction market is cooling, it may be expected in future that growth in employment will slow in that sector and that wage pressures will ease.

Figure 28. Yearly change in the gross monthly wage by sector



Sources: Statistics Estonia, Eesti Pank calculations

Figure 29. Yearly change in wages and value added in construction

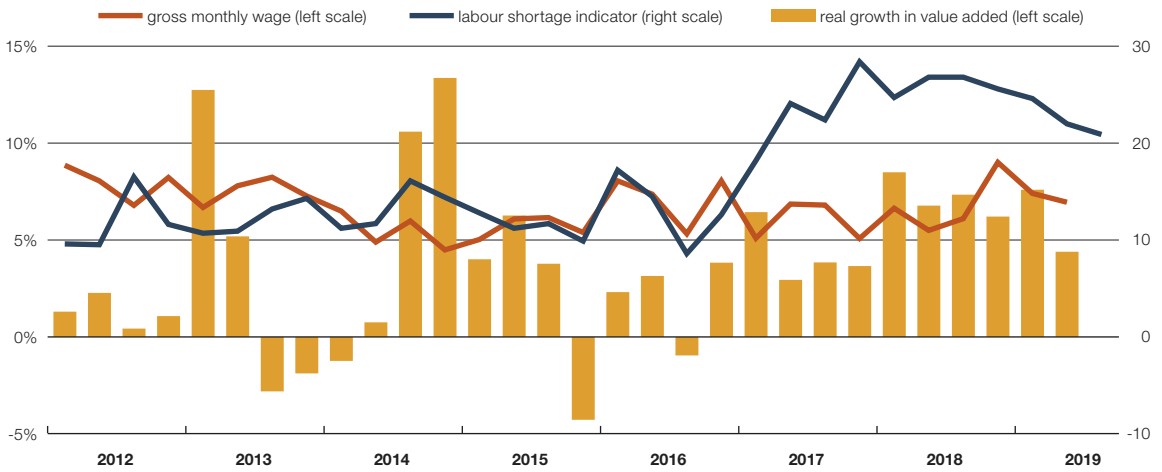


Sources: Statistics Estonia, Estonian Institute of Economic Research, Eesti Pank calculations

The performance of manufacturing depends largely on demand from foreign trading partners for the export articles produced in Estonia. Trade restrictions and political uncertainty have reined the level of economic activity in Estonia's export partners back sharply in 2019, and this in turn is reflected in weaker demand. Despite the decline in foreign demand for the output of Estonian manufacturing, the sector was still very successful in the first quarter of 2019, though the slower growth in value added in the second quarter reflected the weaker foreign demand (see Figure 30). Expectations of employers in manufacturing for employment have become ever more pessimistic since the start of the year, and labour shortages are cited less frequently as a factor restricting output. Sluggish demand for labour means that in future wage pressures will also ease off in manufacturing.

In contrast to industrial sectors, the growth in value added in services has been supported by strong domestic demand. This has been driven by the growth in household incomes caused

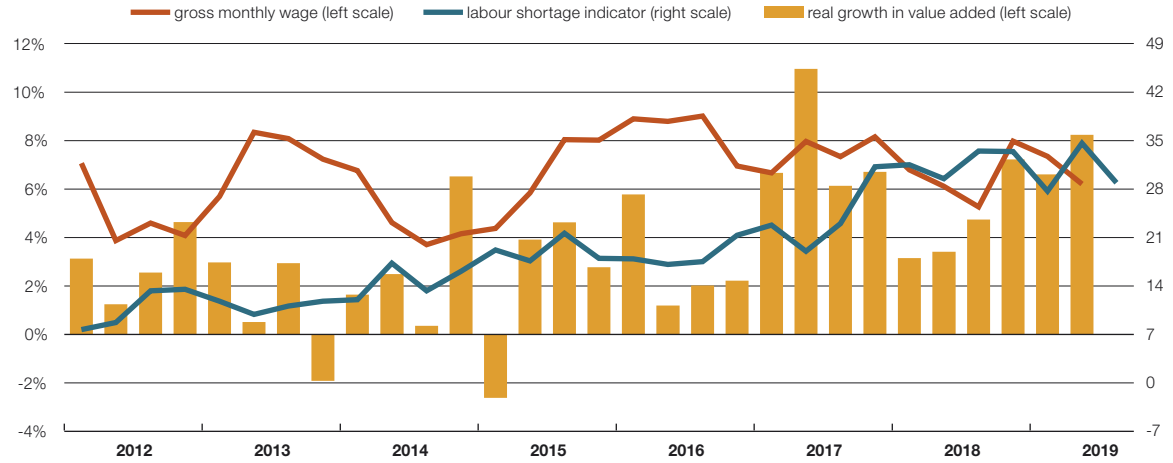
Figure 30. Yearly change in wages and value added in manufacturing



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

by rapid rises in wages and increases in benefits and pensions. Confidence has also remained strong among households and has been supported by the good position of workers in the labour market. Wage growth slowed in the service sector in 2018 (see Figure 31). This is probably because of a smaller rise in the minimum wage, which went up by 6.4% in that year. Unlike in manufacturing and construction, labour shortages have not eased in the service sector in 2019, and the expectations of employers for employment remain optimistic. It is probable that rises in the minimum wage will continue to play an important role for the service sector moving forwards, and negotiations about the minimum wage are still ongoing. As jobs in services often require knowledge of Estonian, foreign labour cannot be hired as easily to solve the problem of labour shortages as it can in the industrial sector. Additional flows of foreign labour affect the service sector indirectly, because local labour can move from industry to services. It is probable in the longer run that the cooler economy will also affect demand for services as disposable income grows more slowly. This in turn will hold back demand for labour and reduce the upward pressure on wages.

Figure 31. Yearly change in wages and value added in private sector services



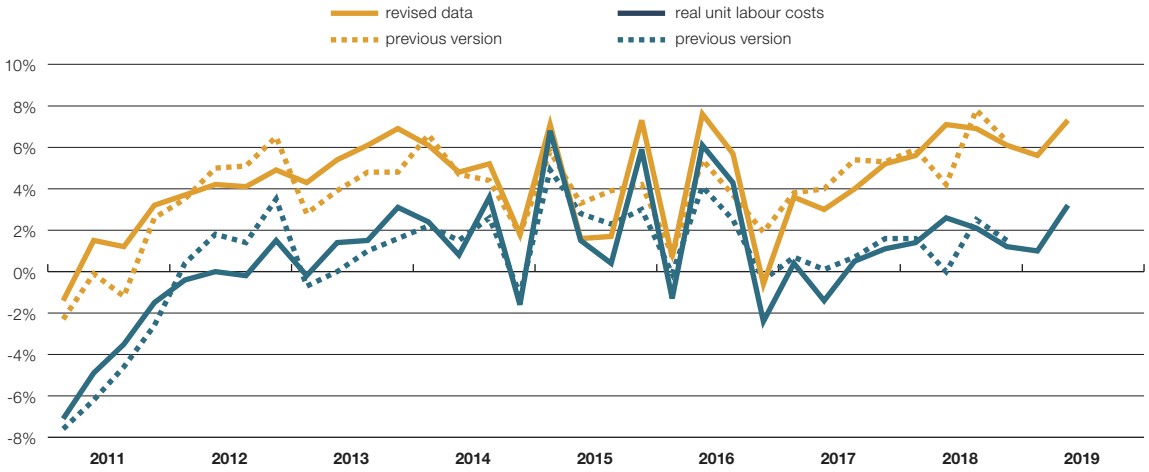
Sources: Statistics Estonia, Estonian Institute of Economic Research, Eesti Pank calculations

Unit labour costs

The impact of the cooler global economic climate was not passed on in full to the Estonian economy in the first half of 2019. GDP increased by 4.5% over the six months on average and the growth was broadly based across sectors. The rate of growth in the economy was slower in the second quarter at 3.6% than the 5% seen in the first quarter. The slowdown was driven by the oil shale sector and by construction. As the growth in wage costs did not slow by as much as the growth in value added, unit labour costs grew faster in the second quarter (see Figure 32). Eesti Pank forecasts that the rate of growth in the economy will continue to slow in the quarters ahead, and given that labour market indicators adjust slowly to changes in economic activity, it is probable that unit labour costs will rise even faster.

Real unit labour costs show the share of GDP that is paid in compensation to employees, or how much of the income earned in the economy goes to labour. The remainder of value added is capital income, which is profit and depreciation of fixed assets. Growth in the labour share is approximately equal to the growth in real unit labour costs. Unit labour costs have steadily increased in Estonia since 2012, meaning that the capital share of value added created has declined (see Figure 32).

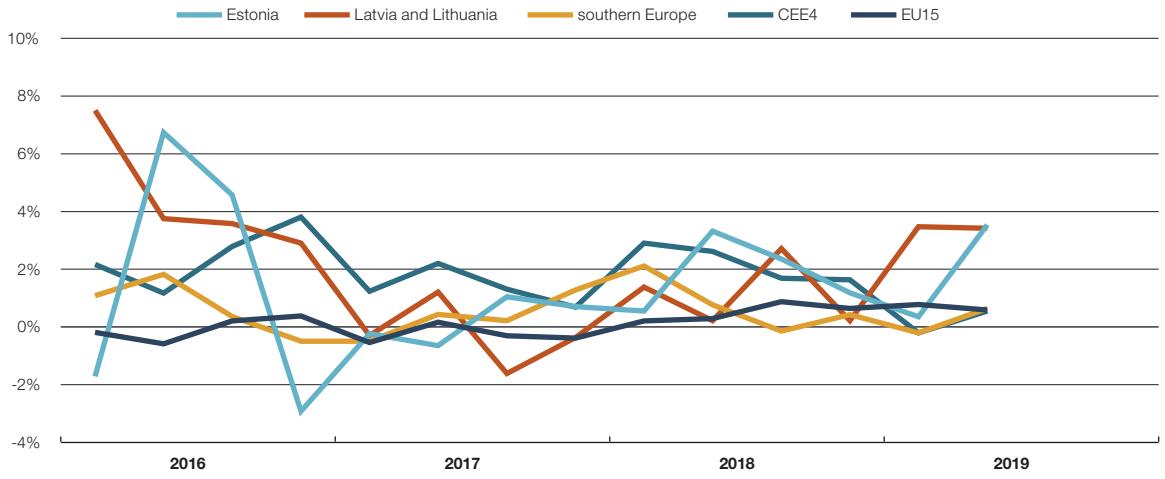
Figure 32. Growth in unit labour costs



Source: Statistics Estonia

If real unit labour costs rise and the share of capital income in GDP falls by more than in other similar countries, it could threaten the relative attractiveness of the country as a destination for production. The small size of the Baltic economies and their openness to foreign influence mean that economic growth has been more volatile in the Baltic states than it has in other European Union countries. Together with this there has been greater volatility in unit labour costs too. In 2014-2015, real unit labour costs rose notably faster in the Baltic states than they did elsewhere in Europe. In the first half of this year, unit labour costs in the Baltic states again rose faster than they did in other parts of the European Union (see Figure 33). From the second half of 2018, unit labour costs also grew faster in the original 15 members of the European Union, largely driven by Germany, where problems in car manufacturing slowed the growth in productivity (see Figure 34), while collective pay agreements meant that wage growth continued at the same rate.

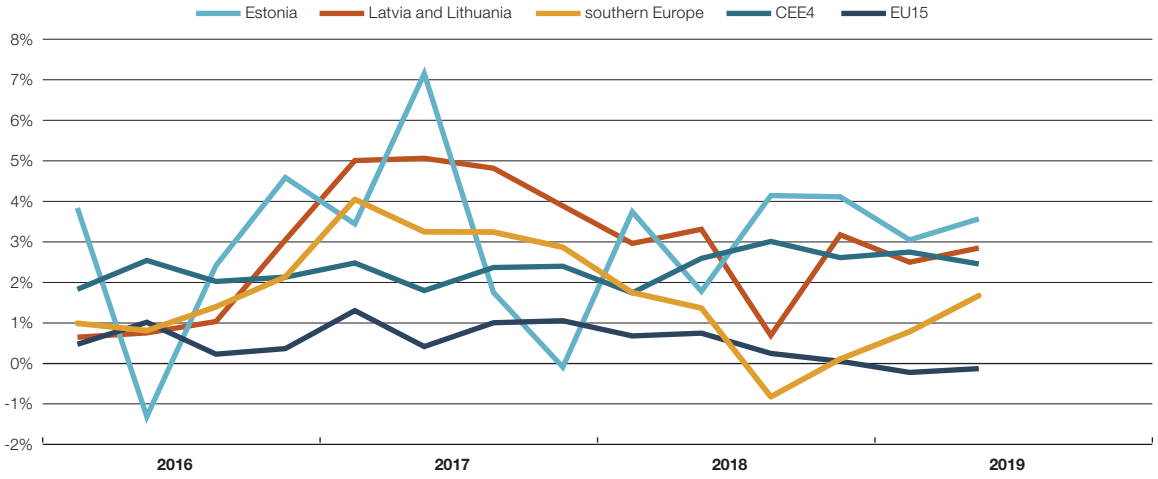
Figure 33. Yearly growth in real unit labour costs



Sources: Eurostat, Eesti Pank calculations

Labour productivity can most easily be measured from the value added created in the economy, or GDP, per person employed or per hour worked. Labour productivity in Estonia and the other Baltic states has been strong since 2016, when the European economy revived and demand for export products increased (see Figure 34). Unfortunately, growth in productivity in 2018-2019 may have been overestimated, as the increasing numbers of people working temporarily in Estonia helped create value added, but do not show up in employment statistics.

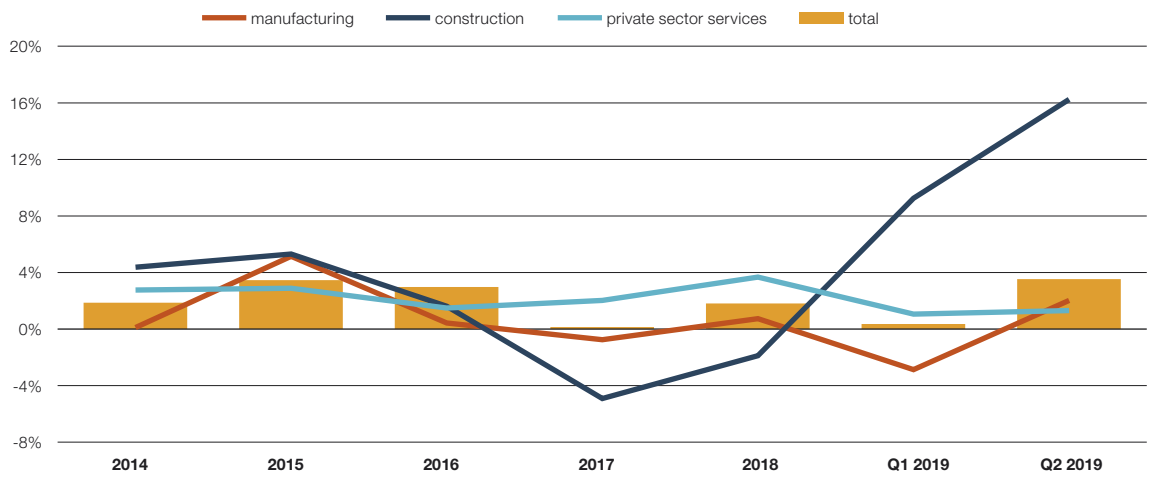
Figure 34. Yearly growth in real labour productivity



Sources: Eurostat, Eesti Pank calculations

Construction contributed largely to the faster growth in unit labour costs in the second quarter of 2019 in Estonia, as the fall in unit labour costs of 2018 was replaced by a strong rise (see Figure 35). The payroll in construction was 20% larger in 2019 than it was a year earlier, but the growth in value added at current prices slowed from around 20% in 2018 to only 4% in the first half of 2019.

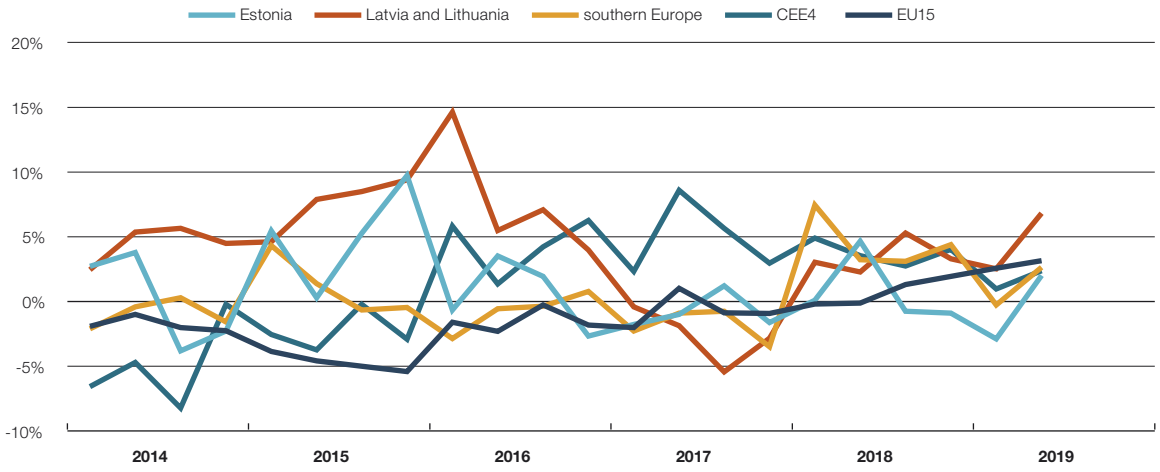
Figure 35. Growth in real unit labour costs by sector



Sources: Statistics Estonia, Eesti Pank calculations

International competitiveness is important in the exporting sector above all. Unit labour costs have barely increased since 2017 as a share of value added in manufacturing, which is the sector with the largest share of exports. They grew by less in 2018 than the average for Latvia and Lithuania, and than the average for the older member states of the European Union (see Figure 36). Unit labour costs grew faster in the first half of 2019 in Estonia, but they remained behind the growth rates of other regions in the European Union. This means that the relative competitiveness of Estonian manufacturing was not harmed by labour costs.

Figure 36. Yearly growth in real unit labour costs in manufacturing



Sources: Eurostat, Eesti Pank calculations