EESTI PANK

ESTONIAN ECONOMY AND MONETARY POLICY

4
2018

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CONTENTS

INTRODUCTION

The economic results in Europe this autumn were weaker than expected. Growth in the economy was braked in the third quarter primarily by a temporary shock to car manufacturing, though even without that it was slowing in the European economy. Growth has been faster in the past four years than it has this century on average, and the reserves of strength that have allowed the growth spurt have become exhausted. Labour shortages are becoming ever more restrictive for companies and additional growth in export orders is declining as demand is softening around the world. On top of this comes the impact of barriers to international trade. Given all this, it is no surprise that companies and households in the euro area are feeling less confident than of late and there are straws in the wind of a gradual fading of economic activity.

Slower growth in the European economy means the prospects for growth in Estonia are weaker. Given the size of the single market, a small country like Estonia does not necessarily feel a one-to-one direct relationship with the slower European growth. In the years ahead growth in the Estonian economy will be held back more by the labour market reaching its capacity limits and an end to the rise in employment, which has been a major contributor to the economic success of earlier years. The combined impact of labour limits, weaker foreign markets, and modest investment will be that growth will slow from the 4.9% seen in 2017 to 2.2% in 2021.

Despite the slower growth, the economy will be larger than in normal circumstances until 2021, and this should be borne in mind when planning government spending. The economy is currently running at a very high level and unemployment is exceptionally low, job churn is at its fastest ever rate, and wage pressures will continue to be felt in the years to come. This all means higher tax revenues than usual and indicates the need to stabilise the economy with a government budget surplus. The planned state budget for 2019 will have a surplus, but the fiscal position in subsequent years will depend on the state budget strategy proposed by the new government. Maintaining the current course would see surpluses in the budget in 2020 and 2021 too.

Companies with low productivity will find it difficult to survive. Relatively more people are employed in manufacturing in Estonia than in the other Baltic states, and productivity is lower in manufacturing than in other branches of the economy. This indicates there are still quite a lot of low productivity jobs in Estonia that could disappear in the coming years if labour costs continue to rise. The less productive branches of manufacturing have already lost workers in recent years and that trend is likely to continue. This will benefit the economy as a whole if the rate of wage growth under pressure from labour shortages does not consistently harm the international competitiveness of production.

The competitiveness of exports has shown the first signs of deterioration. Labour costs in Estonia have risen at one of the fastest rates in Europe and that has translated into a substantial rise in the real exchange rate for exporters. As the full impact of a rising exchange rate is only felt after several years, the deterioration in the terms of trade casts a shadow over the years ahead. The market share of exports in the main target markets has been declining since 2017, which may be the first indication of the rise in wages hurting the economy.

Consumer price inflation is falling mainly because of taxes and energy. Inflation will remain higher in 2018 and from 2019 it will slow to close to 2%. Although the economy has already passed the peak of its cyclical upswing, labour shortages mean that wages are rising strongly, which is pushing up prices for services especially, though also for goods. Equally though, the impact of the large tax rises seen in recent years and the higher prices for energy are not lifting prices by as much as earlier.

THE EXTERNAL ENVIRONMENT

THE GLOBAL ECONOMY

The global economy cooled in the third quarter (see Table 1). The USA was the only large economic region where there was good news, as economic activity declined everywhere else. The main factor holding back economic growth was reckoned to be a string of one-off events and conditions such as new emissions tests for car manufacturers in Europe or particularly bad weather conditions in Japan, and the impacts of these should not necessarily be passed on into future periods. Preliminary data for the fourth quarter indicate some recovery in economic activity and allow the hope that the end of the year will be better for the global economy. There were no major changes in individual sectors. Companies in services are the most optimistic as business volumes are increasing and more and more orders are coming in. The goods sector is still struggling as export orders are steadily declining even though total output increased a little. Given the increase in global risks that affect the global economy such as trade tensions, political risks and falling foreign demand, it is probable that the service sector will remain the main motor of the global economy in the immediate future.

Advanced economies grew in quite different ways in the third quarter. Growth was faster in the US and the United Kingdom than in the same quarter of the previous year, but in the euro area and Japan it was slower. Growth was driven by different factors in different countries, and there were several extraordinary events in the third quarter that together had a substantial impact on economic growth. Despite a couple of retreats in stock markets, markets remain high in the larger countries and financing conditions remain easy.

Markets are being steered by the normalisation of monetary policy in the US, domestic reforms and political uncertainty. The most notable event so far has been a rise in interest rates in the US that has caused an outflow of capital from emerging markets. The dollar has strengthened under the combined impact of higher interest rates and the strong economy, creating further problems for emerging markets in servicing foreign debt denoted in dollars. These factors combined with reforms in some countries and political uncertainty to rein back growth in emerging economies in the second half of the year.

Yearly growth in the US economy was boosted in the third quarter by private consumption and government spending to 3%. Quarterly growth was 0.9%, which was less than in the second quarter. Industrial output increased by more than 5% and confidence remains high for companies. Growth was only held back by net exports and resident investment. The strong momentum carried through into the fourth quarter, as the activity index for October shows major increases in orders in services and industry, and companies declared themselves quite optimistic about the end of this year and the start of the new year. Faster growth is hindered by the ever decreasing amount of available labour in the labour market, where it has become very difficult to find skilled employees, especially in the service sector. Wage growth is a little slower than it was in the summer months, but it is still faster than in other advanced economies. Data from the Bureau of Labor Statistics show an increase in the share of workers receiving other benefits, which has helped to hold wage growth down. Inflation has also slowed a little in recent months

Table 1. GDP growth in different regions in 2012 - 2018 (change, %)*

	2012	2013	2014	2015	2016	2017	2018 Q1	2018 Q2	2018 Q3	2018
World	3.5	3.5	3.6	3.5	3.2	3.8				3.7
Advanced economies	1.2	1.3	2.1	2.3	1.7	2.3				2.4
Emerging markets and developing economies	5.4	5.1	4.7	4.3	4.4	4.8				4.7
Euro area	-0.9	-0.3	1.2	2.1	1.8	2.4	2.5 (0.4)	2.2(0.4)	1.7(0.2)	2.2
United States	2.2	1.8	2.5	2.9	1.6	2.2	2.6 (0.6)	2.9(1.0)	3.0(0.9)	2.9
China	7.9	7.8	7.3	6.9	6.7	6.9	6.8 (1.4)	6.7(1.8)	6.5(1.6)	6.6
Japan	1.5	2.0	0.4	1.4	1.0	1.7	1.1 (-0.2)	1.0(0.5)	0.3(-0.3)	1.1
United Kingdom	1.4	2.0	2.9	2.3	1.8	1.7	1.2 (0.1)	1.3(0.4)	1.5(0.6)	1.4

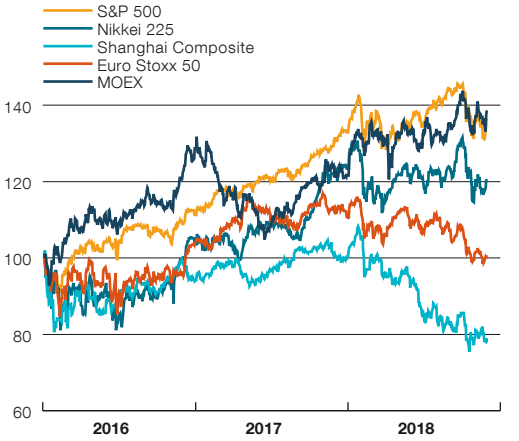
* GDP at constant prices, quarterly growth over the previous quarter of the same year is in brackets, 2018 is WEO forecast
Sources: IMF World Economic Outlook Update (October 2018), OECD, Eurostat, National Statistics

because of the weaker contribution from food and energy prices, and it was at 2.5% in October, though core inflation remained stable at 2%.

Natural disasters hurt the Japanese economy and over the year to the third quarter it only grew by 0.3%. Total output fell in annualised and quarterly terms. An earthquake in Hokkaido, floods and hurricanes interrupted the work of factories and limited the physical movement of people and machines around the country. This reduced private consumption and investment in fixed assets. Preliminary data for the fourth quarter show signs of a rapid recovery in the economy. New orders and output volumes have increased in both services and the industrial sector and new jobs have been created. A lot of companies still note that the positive assessments from October probably reflect investment and orders that were not made in the third quarter rather than the start of a new growth cycle in the economy overall. Inflation was a little higher than in the summer and stood at 1.2% in September. The core inflation monitored by the Japanese central bank, which excludes fresh food, was at 1%. In its autumn forecast the central bank again lowered its inflation forecast by 0.2 percentage point to 0.9%. Although inflation has long been below its target of 2%, the official communiqués of the central bank believe it will climb towards its target in the longer term as GDP growth still exceeds its potential. In fact, changes this summer in the monetary policy framework have affected markets rather as a signal of monetary policy being normalised, and inflation expectations have fallen a little.

Growth in the United Kingdom picked up despite the drawn out Brexit negotiations. Yearly GDP growth accelerated to 1.5% in the third quarter with growth driven by the service sector. The Bank of England estimates[1] that the stronger growth in the third quarter was still down to temporary factors though, and that growth would generally fade in the fourth quarter of the year. Corporate investment has declined this year, which companies say is due to the drawn out Brexit negotiations and the consequent uncertainty. Real estate prices have risen more calmly in the past half year and in September the growth rate was 3.5%. Tension is increasing in the labour market as the number of vacancies is at record levels with unemployment at only 4% and wage growth increasing to 3% in recent months. Inflation has been pulled back from its peak of last year by a fall in food prices, and it was down to 2.4% in October with core inflation at 1.9%. The Bank of England estimates that external factors should play a smaller role in inflation in future while the role of domestic inflation pressures will increase. The pound Sterling has been rising against the euro since the end of summer. Its next movements will largely depend on the solution the United Kingdom gets for its exit from the European Union.

Figure 1. World stock indexes, 04.01.2016 = 100



Last observation 29.11.2018
Source: Bloomberg

Stock markets around the world were mainly down in autumn. The MSCI World share index for advanced economies and the S&P 500 index for US stock markets have lost 5-10% of their value in the past two months (see Figure 1). The biggest losses have been in the technology sector, with slightly smaller losses for industrial and other companies. The correction in equity markets is being linked to the rise in interest rates from the Federal Reserve, global trade tensions and reduced demand, and overestimation of the economic fundamentals of companies. Stock markets in Europe have been less volatile.

1 Bank of England, Inflation Report, November 2018.

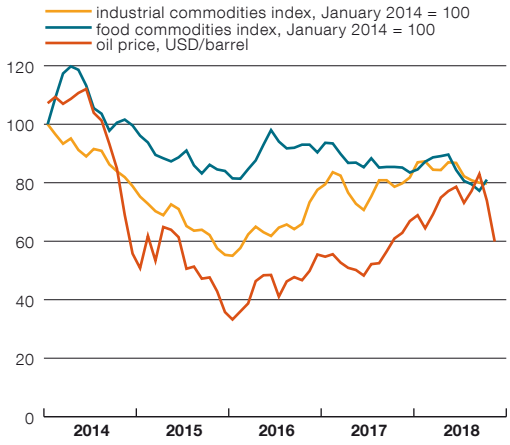
The fall in commodities prices has been led by the oil price. The price of Brent crude has fallen by around a third in the past two months and has even dropped below where it was at the start of the year. The fall in price was caused by an oversupply of crude from OPEC countries and other large producers. The next meeting of OPEC, which will set production volumes, will be in December. The fall in prices for other industrial goods slowed in the autumn and food prices rose in October for the first time since May (see Figure 2).

THE EURO AREA

Entering the autumn, the growth in the euro area economy faded to its weakest of the past four years, as weak exports hurt the German economy, which has been the motor for the euro area. Eurostat estimates that quarterly growth in the euro area was down to 0.2% in the third quarter from 0.4% in the first quarter. Quarterly growth in the German economy was negative at -0.2% for the first time in some three and a half years. Yearly growth was positive in Germany, the other large countries in the euro area, and the euro area overall, where it was 1.7%. The cooling of the global economy and the decline in net exports caused by the global decline in trade meant that growth was clearly slower than previously. Exporters in the euro area are also suffering again from the high exchange rate of the euro against other trading partners (see Figure 3). Growth in industrial output in the euro area was weaker than at the start of the year, and German industry and the German economy have been particularly hit by problems in the car industry, such as adapting to the new European Union CO_2 standards[2] and the tensions caused by global trade barriers. Growth in car production slowed quite substantially at almost all the larger car producers in the euro area in the third quarter. Companies in the euro area have not greatly reduced their investments however, and funding conditions for investment remain easy.

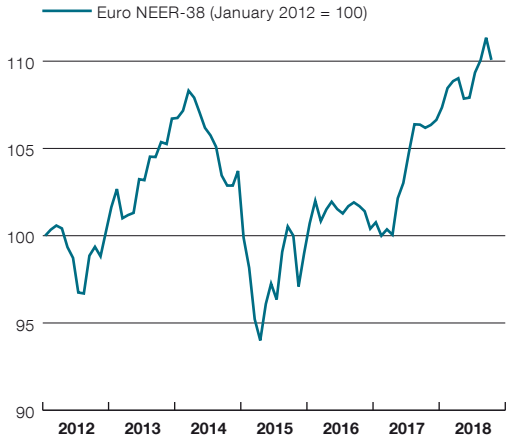
Economic activity indexes have weakened in recent months. The IHS Markit Eurozone PMI Composite Output Index for the euro area was down in October and November primarily because of falling export orders in the industrial sector, but also because of increased difficulties in the service sector. This indicates that economic growth could prove slower in the last quarter of this year than in the first half of it. Confidence is falling among both companies and consumers in the euro area, though this is currently due more to an increase in general uncertainty in the external environment and in certain euro area countries such as Italy (see Box 1 for more on Italy). Moving forward this may yet start to limit consumption.

Figure 2. Commodity price indexes and the oil price in USD



Sources: HWWI, Reuters, Bloomberg

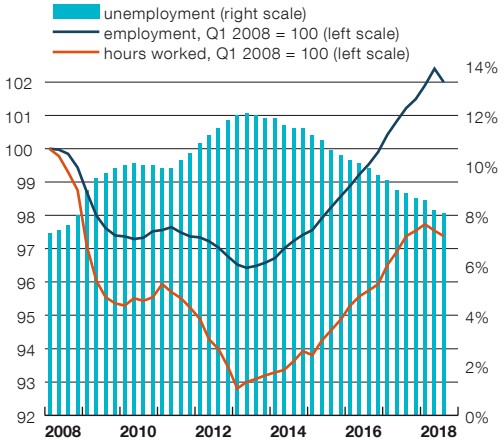
Figure 3. Nominal effective exchange rate of the euro



Source: European Central Bank

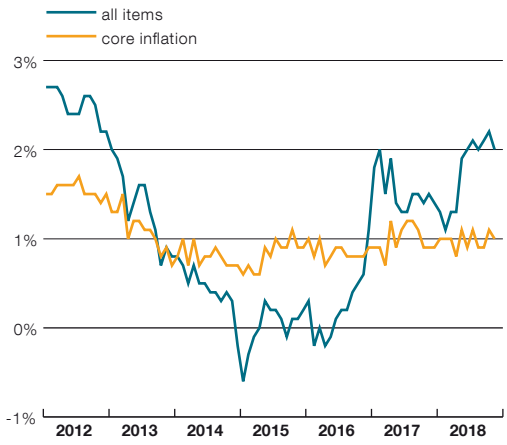
2 The average CO_2 emission of new cars registered in the European Union must be 15% lower by 2025 than the limits set for 2021, and 35% lower by 2030 or 30% for goods vehicles. These targets apply for all vehicles in the European Union. The burden of reducing CO_2 emissions is shared between producers by the average mass of their vehicle stocks.

Figure 4. Employment and unemployment in the euro area



Source: Eurostat

Figure 5. Euro area inflation



Source: Eurostat

The unemployment rate remains low in the euro area, and it was 8.1% in October as it has been for several months, which is the lowest figure since 2008. Growth in employment slowed in the third quarter from 0.4% to 0.2%, but survey data indicate that many companies are still planning to hire additional staff (see Figure 4). This means the labour market will remain favourable for employees. Companies in the euro area are more and more citing labour shortages as a factor restricting development, and some branches of the economy are facing severe shortages of skilled and basic blue-collar workers as well as of professional specialists. Wage growth has slowly but steadily accelerated and is a little over 2%. This should help to keep inflation close to the target of the Eurosystem (see Box 2).

Inflation was slowed to 2% in November by lower prices for energy, services and food, from 2.2% in October, which was the highest rate of inflation in the euro area in six years (see Figure 5). With the general rise in prices, core inflation also fell in November to 1%. Prices have risen notably though for production inputs because of earlier rises in commodities prices, while producer prices are also up and higher prices are more and more being passed on to customers.

Box 1. The outlook for the Italian economy

The Italian debt crisis and the danger of recession are among the most serious risks casting a shadow over the outlook for the euro area economy. History has shown that Estonia would not escape the impact of such a crisis.

Italy has been a cause for concern in the euro area since the coalition of the Five Star Movement and the League came to power in spring 2018. These parties were helped to power by support from voters for their promises to introduce a universal income and to lower tax rates and the retirement age. This means their success is partly based on the failure of the Italian economy, or more accurately on the inability of earlier governments to introduce reforms that would make life notably better. This is no surprise given that Italy's coalition governments last for 10 months on average, voters are very divided, and interest groups and lobbyists are very powerful. The consequence of this is that real disposable income per capita in Italy some 10 years after the global financial crisis is still less then when the country joined the euro area, unlike in, say, Spain, where the economy was also hurt by the debt crisis. The biggest losers have been people of working age and the young, as 11% of residents and 35% of the young cannot find work, and some 30% of people across the country, and 44% in the south, are at risk of falling into poverty.

The future of both parties depends on whether they can fulfil their promises. However, as the Five Star Movement and the League are still competitors to some extent, with promises that are incompatible with each other, the budget deficit has swelled to several times more than European Union rules permit even after all mitigating factors are taken into account. The planned spending is unlikely even to give a boost to economic growth in the short term, as Italian interest rates remain higher than the euro area average, and the spending will probably not fix Italy's structural problems.

The Italian economy is made more vulnerable by the large public debt together with structural problems, most notably the complicated legal system, excessive bureaucracy, a weak education system, the inefficiency of the corporate sector, and centralised wage bargaining. The Italian civil justice system and the competitiveness of the tax system are estimated to be the second worst in the wealthiest countries[3]. The weakness of the education system is shown by one of the worst PISA results among OECD countries, the relatively small share of young people with a university degree, and the highest student drop-out rate in the European Union. Largely for these reasons Italy remains behind many other countries for the modernity of its industry. Data from the European Commission show that 95% of Italian companies have fewer than ten employees, and OECD data show the productivity of small Italian companies to be lower than that of those in other large euro area countries. This is partly because those companies specialise in low technology labour-intensive products that cannot compete with exports from China. Although labour productivity is high at large companies, there is still space for it to improve and the productivity at the most productive companies as a whole is falling[4]. Unfortunately sectoral wage bargaining has done nothing to bring wage growth and productivity growth into line at the level of individual companies. Wages have grown faster than productivity over the past decade[5] and this has hurt employment and corporate profits and investment.

However, the Italian economy is not performing badly everywhere. GDP per capita at purchasing power parity is at 97% of the European Union average, while the large public debt is counterbalanced by a relatively small external debt, and a good net foreign investment position that reflects the large assets and low loan burden of the private sector. The current account has been in balance or in surplus of late, and Italy has also made notable steps forward in strengthening its banking sector as capitalisation levels have risen, problem assets have been reduced and non-performing loans are down to 10% of the total.

The Italian public debt is the second largest in the European Union behind that of Greece, and in 2017 it was 132% of GDP. Servicing the debt, which doubled in the 1980s, costs Italy around 4% of its GDP each year. Italian governments have been among the few in the euro area that have managed to keep their primary fiscal position in balance or in surplus. Borrowing by the central government in recent years has gone entirely on servicing the debt.

It is generally considered that Italy's capacity to grow out of its debt is weak. Doing so would require substantial structural reforms that would increase Italy's potential for growth and would rein in the growth in spending on pensions, which is very high by the standards of the euro area. Furthermore, continuing rapid growth in the economy would require strong foreign demand and low interest rates. Unfortunately the growth in foreign demand is slowing and the normal-

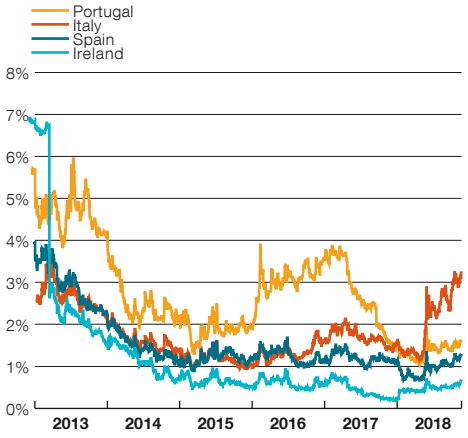
3 World Justice Project Rule of Law Index 2017-2018 https://worldjusticeproject.org/ and US Tax Foundation 2018 International Tax Competitiveness Index. https://taxfoundation.org/publications/international-tax-competitiveness-index/

4 OECD economic survey of Italy 2017 http://www.oecd.org/eco/surveys/italy-2017-OECD-economic-survey-overview.pdf.

5 Alvar Kangur (IMF WP No 18/61) estimates that unit labour costs in Italy are 30% more than the euro area average https://www.imf.org/en/Publications/WP/Issues/2018/03/16/Competitiveness-and-Wage-Bargaining-Reform-in-Italy-45739.

isation of monetary policy at the US Federal Reserve and the European Central Bank will inevitably lead to higher interest rates. The interest spread on Italian government 10 year bonds over those of Germany has reached three percentage points (see Figure B1.1). The confidence index of Italian companies (PMI) is also falling, indicating that they expect difficult times ahead for Italy in any case. The danger of a recession caused by slowing economic growth and budget cuts resulting from deteriorating financing conditions cannot be ruled out.

Figure B1.1. Interest spreads on 10-year government bonds over Germany (percentage points)



Last observation 20.11.2018
Source: Bloomberg

One weakness that was made apparent by the recent debt crisis has been the connection between the government and the banks. Although Italian banks have started to buy more government debt again in 2018, this has not yet raised the interest rates on bank loans to companies and households nor limited lending. At the same time the interest rate spreads are making funding for the banks more expensive. This particularly threatens smaller and medium-sized banks, which are less profitable. The rise in the interest rates on Italian government debt has widened the spread in the interest rate on Italian corporate bonds over those on bonds from other euro area companies.

The biggest concern in bond markets is undoubtedly contagion risk as a rise in the yields on Italian bonds could affect the yields of other euro area bonds. No significant sign of contagion has been yet seen with government bonds, which means that investors consider that the risks of the Italian state concern only Italy. Banks in the euro area are tightly interconnected though, and their risk factors are notably similar. In consequence the yields on the bonds of Italian and Spanish banks have risen in correlation as might be expected. The European Commission estimates that it is Italian banks that pose the greatest risk both to Italy and to the euro area[6].

There is no direct danger to Estonian banks from Italy, as the Estonian banking sector is strong and lending is based largely on domestic deposits. However, a crisis in Italy would indirectly pose a serious danger to the Estonian economy. The Italian economy alone accounts for some 15% of euro area GDP. If the contagion seen in the 2011 debt crisis were to be repeated, it could drag the whole euro area economy down, and the euro area is the destination for around 60% of Estonian exports. Equally though, if a crisis were to spread through the whole euro area, the European Central Bank would loosen its monetary policy. The low interest rates that this could imply would encourage further growth in the Estonian finance, construction and real estate sectors.

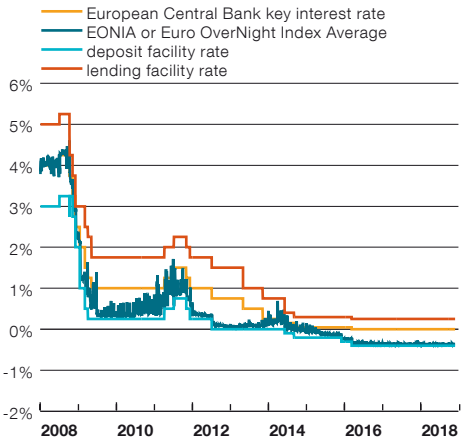
6 The European Commission autumn forecast 2018.

Box 2: The euro area's monetary policy environment

The objective of the Eurosystem monetary policy is to maintain price stability in the euro area. The forecast from the European Central Bank of December 2018 expects that inflation will

climb to 1.8% by 2021[7]. Inflation is being boosted by monetary policy measures, the ongoing economic expansion and rising wage growth. The Governing Council of the European Central Bank has held monetary policy interest rates at their lowest levels under the economic and monetary union in 2018, with the minimum bid rate on main refinancing operations at 0.00%, the lending facility rate at 0.25%, and the deposit facility rate at -0.40% (see Figure B2.1). The Governing Council expects they will remain at their current level at least through the summer of 2019, and in any case for as long as necessary to ensure the continued sustained convergence of inflation to its target level.

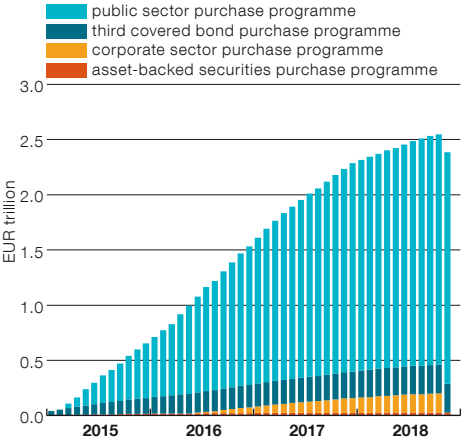
Figure B2.1. Eurosystem key interest rates and EONIA



Last observation 30.11.2018
Source: European Central Bank

The Eurosystem has complemented low interest rates with other monetary policy measures, in order to ease financing conditions and ensure the revitalisation of the supply of credit so as to help in meeting the goal of price stability and in supporting the functioning of the monetary policy transmission channels. The monthly purchases under the asset purchase programme (APP) are 15 billion euros from October to December 2018, and net purchases will end in December 2018. The Governing Council enhanced its forward guidance on reinvestment. Accordingly, the Governing Council intends to continue reinvesting, in full, the principal payments from maturing securities purchased under the APP for an extended period of time past the date when they start raising the key ECB interest rates. This is very important for the Eurosystem as in this way long-term monetary support and favourable liquidity conditions can be provided. The expected effect of the measures on the economy of the euro area and on inflation will be seen in the medium term.

Figure B2.2. Eurosystem holdings under the asset purchase programme



Last observation 30.11.2018
Source: European Central Bank

The support from the monetary policy measures meant that the consolidated balance sheet of the Eurosystem at the start of December stood at 4.6 trillion euros, which is about 2.2 times what it was in autumn 2014, and was equal to about 40% of the GDP of the euro area. Reinvestment will help to maintain the size of the balance sheet at about the same level for some time to come. As at the end of November total asset purchases stood at 2.5 trillion euros (see Figure B2.2). At 2.1 trillion euros, the largest part of the portfolio consists of public sector bonds, of which Eesti Pank's purchases accounted for 5.5 billion euros at the end of November 2018.

Average yearly growth of the money supply in the euro area remains strong, and in October 2018 the broad money indicator M3 was up 3.9% and the narrow indicator M1 was up 6.8%.

7 European Central Bank press conference, 13 December 2018.

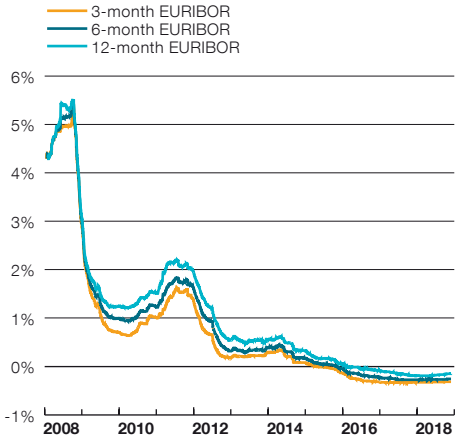
The growth was a little slower than in the previous quarter because the asset purchases were smaller this year. The growth remained stable in October. The extremely low interest rates have reduced the return earned by the non-financial sector from term deposits, which has fallen to close to 0.2% in the euro area on average. The yearly growth in the stock of corporate deposits was a little slower than earlier in the third quarter, though the growth in the stock of household deposits was a little faster. The buffers that have been built up generally mean that less external funding is needed for necessary spending and more can be consumed in a favourable economic environment.

Yearly growth in the stock of loans to the private sector has accelerated since the second half of 2015, the yearly growth in the stock of both housing loans and corporate loans has been above 3% since autumn 2017, and the fastest growth has been in lending to companies. Corporate loans have grown for all maturities, with support for growth coming from the increased need for investment in fixed assets. Interest rates on loans are at unprecedentedly low levels, averaging 1.3-2%. The spreads between interest rates for euro area countries facing problems and other member states and those between rates for loans of over 1 million euros and under 0.25 million euros have narrowed in recent years. Such changes indicate that monetary policy measures have improved access to loans for the private sector.

The latest Bank Lending Survey of lending by banks in the euro area shows that the lending conditions for companies and households have improved[8]. Banks report that monetary policy measures have helped bring down their financing costs and improve their liquidity positions, and the credit supply has increased. It should be noted though that interest rates remaining low could harm the profitability of banks and increase the risks to financial stability in the long term, and this in turn could reduce their ability to lend.

The accommodative monetary policy in the euro area has helped short-term money market interest rates stay at their lowest ever level. The expectations for short-term interest rates that are revealed by financial instruments remain low, and this also keeps long-term interest rates low. EONIA was at between –0.34% and –0.35% from September to November, holding just above the interest rate on the standing deposit facility. At the end of November the three-month EURIBOR was at –0.32%, the six-month EURIBOR was at –0.25%, and the 12-month EURIBOR was at –0.14%, so they have remained at the level of the end of February (see Figure B2.3). The money market yield curve as shown by the gap between the one and 12-month EURIBORs was almost the same as in August, which shows that the expectations of the market for a rise in monetary policy interest rates have not changed.

Figure B2.3. Euro area money market interest rates



Last observation 30.11.2018
Source: Bloomberg

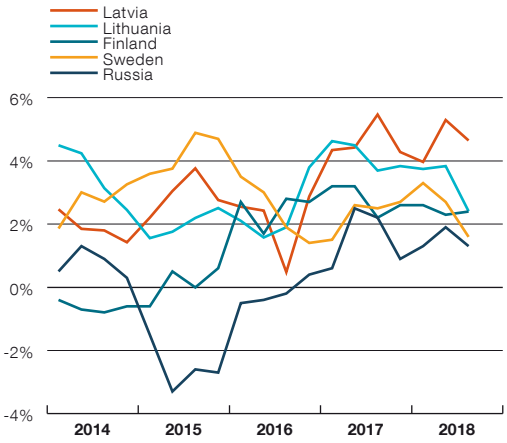
8 Changes in lending conditions are interpreted in the survey by analysing the net difference in the shares of those banks that have noted in the review that they have tightened credit conditions such as margins or collateral demands, and those banks that said they have loosened their conditions. A negative net rate means that a majority of banks have loosened their credit conditions.

ESTONIA'S MAIN TRADING PARTNERS

The growth in the Latvian and Lithuanian economies moved in different directions. Yearly growth in the Latvian economy stood at 4.7% in the third quarter of 2018 (see Figure 6) with very strong quarterly growth of 1.7%. The growth in the Lithuanian economy weakened in the third quarter though to 2.4%, and in quarterly terms GDP showed its first decline in around a decade, falling by 0.3%. The main cause of the weaker results for Lithuania was the agricultural sector, and the decline may prove to be only temporary. Uncertainty about the external environment has led to a deceleration in foreign trade in both countries, so that although growth in exports was still fairly strong in the third quarter (see Figure 7), exports of goods in September were less than a year earlier in both Latvia and Lithuania. Alongside the drop in foreign trade, the growth in manufacturing in Latvia has slowed in the past half year. Yearly growth in manufacturing in Lithuania also slowed in the third quarter, but in October it was again measured at around 10%. Economic growth in both Latvia and Lithuania is based on strong domestic demand as rising household incomes have increased private consumption, and investment and the construction sector are growing well. Labour market developments have also been positive as unemployment fell in the third quarter in Latvia (see Figure 8) and employment rose further. The number of people in employment in Lithuania also rose, and the unemployment rate in the third quarter was lower than a year previously. Inflation in Latvia has been pushed upward mainly by higher energy prices in the past half year, and in October it reached 3.2% (see Figure 9). Consumer prices also rose in Lithuania by 2.9% in October, which is the fastest rate of growth of the past five years.

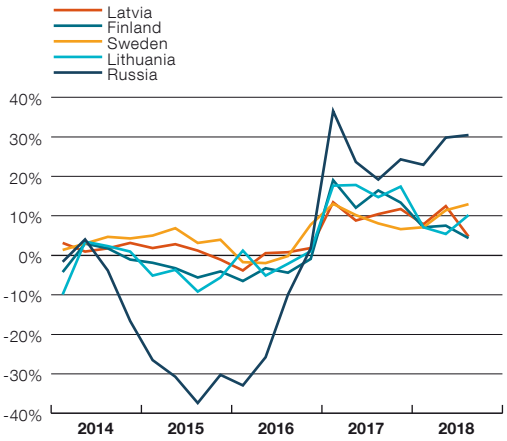
Finnish GDP grew, but growth in the Swedish economy was weaker than expected. Yearly GDP growth in Finland picked up to 2.4% in the third quarter and the economy continued to grow over the previous quarter. Growth in the Swedish economy slowed to 1.6% over the year in the third quarter, and was 0.2% less than in the second quarter. This was the first quarterly decline in the Swedish economy in five years. The main base for growth in Finland and in Sweden has

Figure 6. Yearly GDP growth rate of trading partners



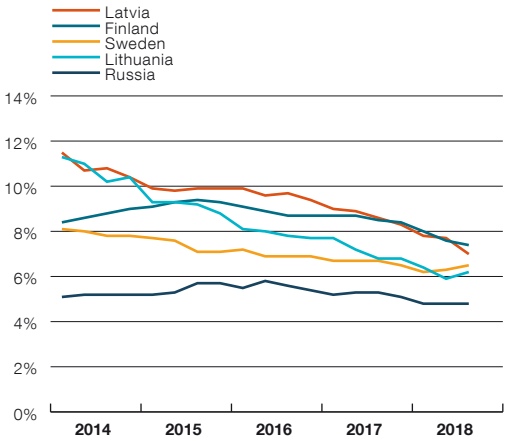
Source: Eurostat

Figure 7. Yearly export growth of trading partners



Source: Reuters

Figure 8. Unemployment rate of trading partners

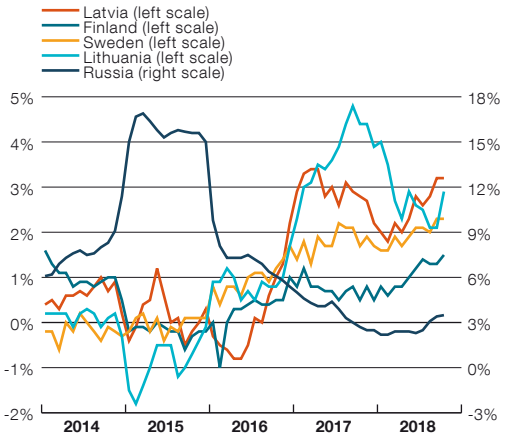


Sources: Eurostat, OECD

been investment and household consumption. Investment is weakening in the construction sector in particular however, and Swedish private consumption in the third quarter was less than in the previous period. There has been a substantial fall in the number of new construction permits issued in Finland and some 15% fewer new residential properties were built in Sweden in the first three quarters of 2018 than in the same quarters of the previous year. The growth in new housing loans in Sweden has also slowed in the past half year. The turnover of trade has held stable for Finland and Sweden as Finnish exports are supported by improved price competitiveness and Swedish exports have been boosted substantially by the depreciation of the Swedish krona. Swedish exports measured in krona were up 9% over the year in September, but calculated in euros the value of goods exports was down. The Finnish industrial sector continued to grow with support from electronics, chemicals and metal production, though the growth in industry was slower than a year earlier in both Finland and Sweden. The level of activity is high in the Nordic labour markets as unemployment is falling and the number in employment continues to rise. However, companies are having difficulties in finding qualified labour. Consumer prices are rising in both countries and inflation in Finland was at its highest of the past four years in October at 1.5%, while in Sweden it was at its highest of the past six years at 2.3%. Although rising inflation has led the Swedish central bank to promise a rise in the repo rate in December, or at the latest in February, the weaker growth in the economy in the third quarter than had been expected may delay the rise in interest rates.

Economic growth remains weak in Russia. Yearly GDP growth dropped to 1.3% in the third quarter and economic output in the first three quarters of the year was only 1.5% more than in the same quarters of last year. Growth in retail and in industry slowed in the third quarter and output was down over the year in agriculture and construction for the second quarter in a row. The value of exports was over 30% higher in the third quarter than a year earlier, though two thirds of the growth came from the higher price of oil, while export volumes of crude oil and oil products have fallen for three quarters now. In the same way the value of imports, which had grown strongly for a long time, was down over the year in the third quarter, mainly because of the weaker rouble, which reduces purchasing power in Russia even further. Despite strong growth in wages the real disposable income of households has fallen and the growth in sales volumes at retailers has slowed in recent months. Inflation pressures have also notably strengthened and yearly consumer price inflation was 3.5% in October, which is the highest figure of the past year and a half. Higher inflation led the Russian central bank to raise its benchmark one-week repo rate to 7.5% in September. The central bank expects that inflation will climb to its target level of 4% by the end of 2018, and in 2019 consumer price inflation will be even higher, partly because of a rise in VAT that will come in at the start of the year.

Figure 9. CPI inflation of trading partners



Source: Eurostat

THE ESTONIAN ECONOMIC ENVIRONMENT

ECONOMIC ACTIVITY

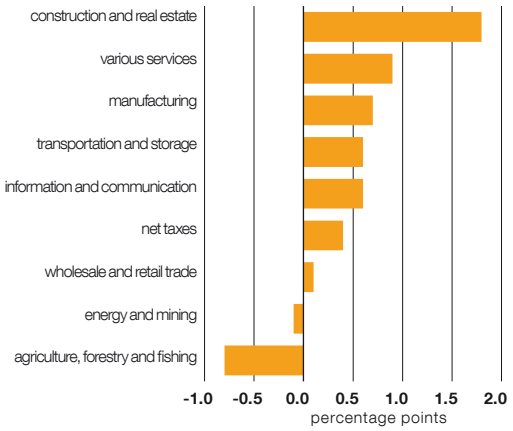
Gross domestic product (GDP) grew to be 4.2% larger in the third quarter of 2018 than a year earlier, and 0.4% larger than in the second quarter. While the economy has cooled a little in Europe as a whole, activity in the Estonian economy increased over the second quarter.

Growth in the economy in the third quarter was based largely on domestic demand, while exports grew little. Around half of the growth came from the construction and real estate sectors (see Figure 10). Rapid growth continued in business services and IT also made a significant contribution to growth in the economy. Growth is held back above all by agriculture, which suffered from drought in the summer months.

Growth is a little slower than in 2017, but in the third quarter the economy was still growing at above its long-term sustainable level, which is estimated at close to 3% (see Figure 11). As there is ever less available labour in the economy, growth will depend increasingly on gains in productivity. One company hiring a new employee is highly likely to mean that some other company has to manage with one fewer employees. Surveys indicate that labour shortages are particularly affecting branches of the economy with low productivity, which find it hard to compete with sectors offering higher wages. Such competition is healthy though, as it helps to improve the structure of the economy. Box 3 considers the relationship between labour mobility and wage levels and shows that the share of branches of the economy offering higher wages has increased in recent years. However, a rise in the share of branches of the economy paying higher wages does not necessarily mean that the economy is becoming more productive.

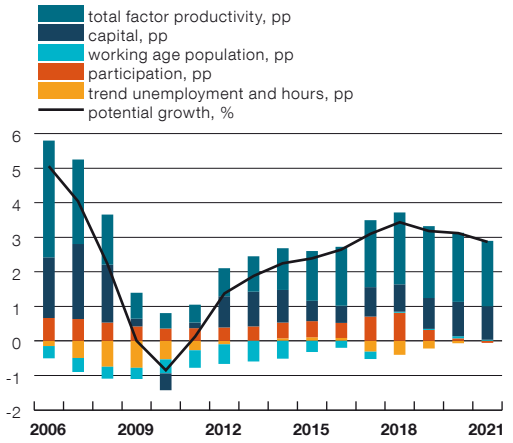
If the economy is lacking in labour and production capacity for a long time, pressure on prices and wages to rise excessively fast could increase. This would harm the competitiveness of the exporting sector and could limit the long-term capacity for growth. It is easy to overestimate the long-term capacity for growth of the economy during good times, and pay too little attention to the emergence of imbalances that

Figure 10. Contributions of sectors to GDP growth in 2018 Q3



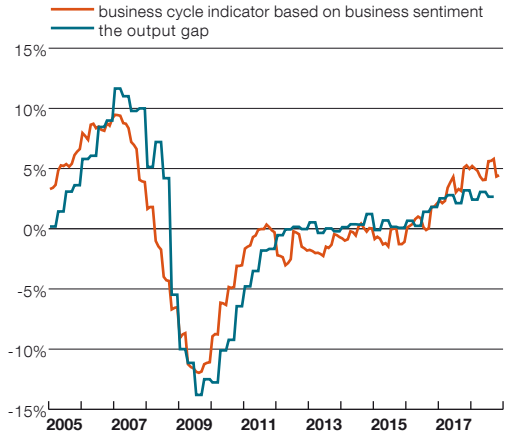
Source: Statistics Estonia

Figure 11. Contributions to growth in potential output



Sources: Statistics Estonia, Eesti Pank

Figure 12. The business cycle

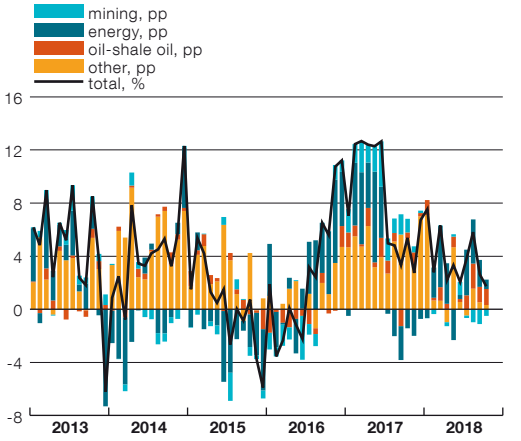


Source: European Commission, Eesti Pank, Statistics Estonia

are building up. Data from enterprise surveys on the phase of the economic cycle show the economy to be running hotter than estimates of the Estonian output gap do (see Figure 12).

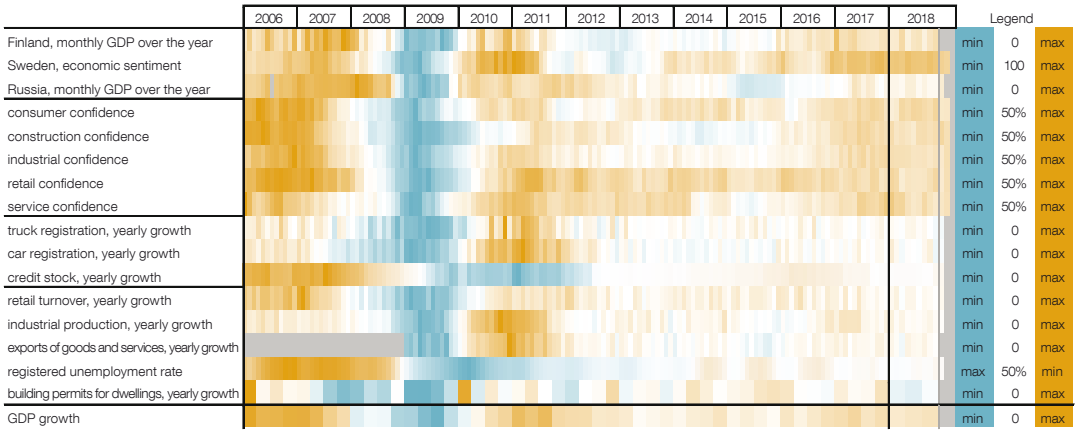
Growth in industrial output was led in the third quarter by branches of industry connected with oil shale production. Favourable market conditions allowed production volumes to be raised for electricity and shale oil, which is seen in the figures for industrial output. Electricity production grew by around 5% in the third quarter, oil shale production did so by 7%, and shale oil production by almost 40%. Other branches of industry grew more modestly (see Figure 13), though the picture is quite varied across different branches of industry as some grew and some declined.

Figure 13. Yearly growth in industrial production



Sources: Statistics Estonia, Eesti Pank

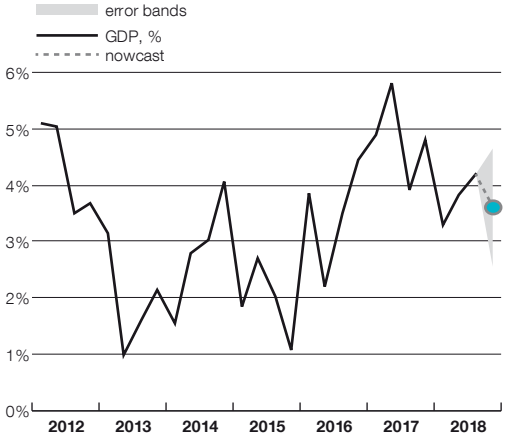
Figure 14. Heatmap of the Estonian economy



Sources: Reuters, European Commission, Eesti Pank, Statistics Estonia

Growth in industrial output slowed in October mainly because of slower growth in the energy sector. Industrial output was up 1.7% over the year, while manufacturing output was up 2.3%. Survey data from November are optimistic though, and indicate faster growth in manufacturing output. Equally, expectations of companies for output in the coming months remain high. Stronger industrial orders in November and expected growth in demand in the service sector lifted economic sentiment. At the same time though, consumer expectations for the general economic situation of the country deteriorated, which may be due to media reports increasing expectations of a crisis.

Figure 15. GDP growth and current quarter nowcast



Source: Eesti Pank

The performance of the Estonian economy and the indicators for the near term, which are also used by the Eesti Pank nowcasting models, can be illustrated in a heatmap (see Figure 14). In this, the historical path of each indicator or its yearly growth is colour-coded with periods of decline in blue and periods of growth in yellow. The more specific meaning of the colours for each indicator are explained on the right of the figure. The indicators are divided into four blocks. The first group of indicators reflect activity in neighbouring countries, the second group show confidence in different sectors of the Estonian economy, the third group relate to investment and borrowing or leasing, and the fourth group are called the hard indicators and reflect economic activity directly.

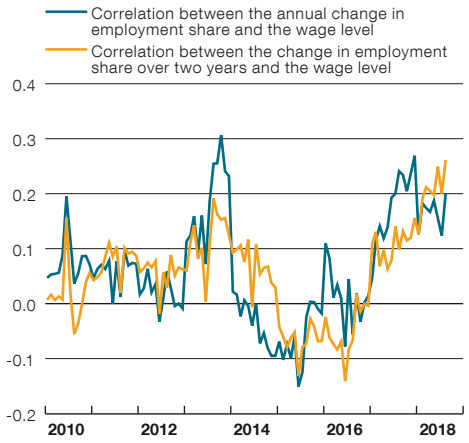
The figure shows a slight loss in temperature from the level of the third quarter in the sentiment of Estonian consumers and traders and also in general sentiment in Sweden, while registrations of vehicles are down. Short-term information is brought together by nowcasting models that forecast fourth quarter GDP growth to be around 3.6%, as shown in Figure 15.[9]

9 The nowcast produced by the Eesti Pank indicator model is a technical regression-based forecast that takes in data as they are received. There are fifteen models in the set and the nowcast is the median of the individual forecasts. The uncertainty related to our forecast is indicated by the mean historical absolute nowcast errors.

Box 3: The share of more and less productive branches of the economy in the structure of the economy

In recent years the number of people in work has increased and the number staying at home has fallen, while the turnover of jobs, or churn, has also been growing steadily. In consequence employees are looking for the best service and are finding it. A large number of new jobs have been created and it is probable that many jobs have also disappeared. The creation of new jobs can affect the structure of the economy depending whether employment has increased primarily in sectors with low or high productivity.

Figure B3.1. Relation between structural change and the wage level



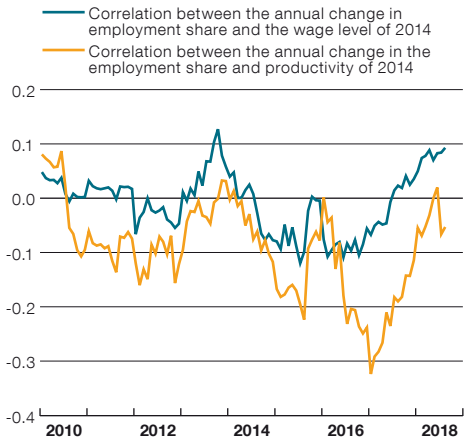
Sources: Tax and Customs Board, Eesti Pank

Calculations show that despite the large flows of labour in recent years, it is primarily branches of the economy with low productivity that have increased their share of employment. This box analyses the structural changes and suggests some possible reasons for them, but does not consider whether such developments are beneficial or not.

Statistics for social tax receipts confirm that in recent years, sectors[10] with higher wages have increased their share of employment (see Figure B3.1). The data on sectors in the social tax declarations are used to calculate how much the change in shares of sectors in total employment is related to wage levels. A positive correlation coefficient shows that on average there has been a greater increase in the share of sectors with high wage levels. The correlation coefficients are small but as the structural changes are slow and there may be some distortions in the data, it is not possible to assume a strong correlation between structural changes and wage levels.

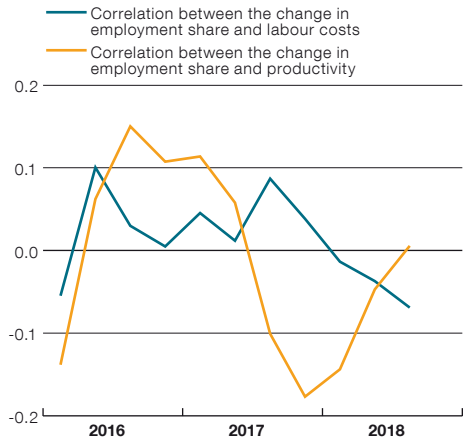
10 Sectors are considered using the two digit code but those where there are fewer than 100 people working are excluded. The total number of sectors included is 81.

Figure B3.2. Relation between structural change and productivity



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

Figure B3.3. Relation between structural change and the productivity of firms



Sources: Statistics Estonia, Eesti Pank

An increase in the share of sectors with higher pay in total employment does not necessarily mean that those sectors have higher labour productivity or greater value added per employee. Figure B3.2 describes the relation between the productivity of sectors in 2014 and employment in recent years. No positive relation is revealed between productivity and structural changes in employment, and in some years the correlation coordinate is even negative, meaning that the share of employment in low productivity sectors increased.

Figure B3.3 describes the calculation results using quarterly statistics from companies. The previous figure analysed structural changes in the whole economy, but this figure only considers non-financial companies. It shows that in 2017 the relation between structural changes and hourly productivity was negative, meaning there was an increase in the share of lower productivity sectors. This means that employment increased faster in branches of the economy with low productivity.

This may appear surprising since the movement of workers towards better wages should boost growth in the economy, as companies that can afford higher wages should be more productive. This may not always be the case though, because if the economy is overheating, demand may temporarily increase in sectors where it is not sustainable over the long term. This was seen in the previous boom when demand increased in construction on the back of borrowed money and the number of workers in construction rose rapidly. When the crisis hit, employment dried up in the construction sector though.

The growth in low productivity sectors may be a consequence of increased participation in the labour market. Labour market measures such as the Work Ability Reform and changes in the tax system have encouraged the addition of labour in low productivity areas. Getting people into the labour market helps them to cope better and reduces the burden on the social support system.

The negative correlation with productivity may also come from the broader sense of capital. Sectors paying higher wages may demand more human capital and may need less physical capital. As a consequence wages in those sectors may be quite high relative to productivity.

DOMESTIC DEMAND

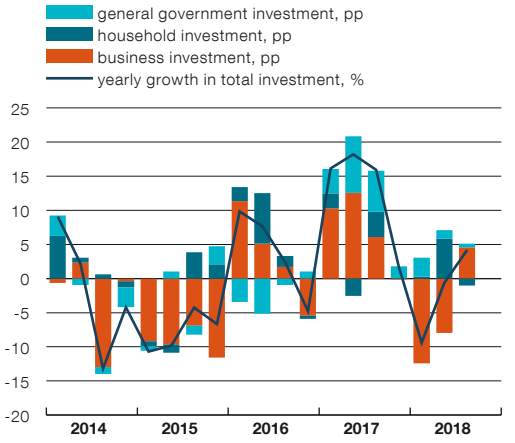
The yearly growth rate of Estonian domestic demand increased throughout the first three quarters of 2018. Domestic demand in the third quarter was 6.4% more than a year earlier at constant prices. This rapid growth was driven by increases in both private consumption and investment. Gross fixed capital formation was 4.2% larger in the third quarter than it was last year, primarily thanks to increased investment by companies (see Figure 16). The growth in corporate investment is a good sign, as it is particularly the lack of interest shown by companies in investing that has held the investment rate of the Estonian economy notably lower in the past few years than it was 10-15 years ago (for more see Box 4).

Having fallen for three quarters, investment by non-financial companies increased over the year in the third quarter of this year. Growth of 8.3% in corporate investment was supported most by increased investment in construction. The energy sector was the sector that contributed most to the increase in corporate investment, as gross capital formation was up more than one third on a year earlier. Investment also continued to grow in manufacturing, where the main investment was in machinery and equipment. Survey data from the Estonian Institute of Economic Research show that manufacturing companies mainly invested in making their production more efficient. Companies in transport and storage invested less than they did last year.

The growth in corporate debt picked up a little. The average interest rate on long-term corporate loans is very variable because of the different natures of the projects the loans are for, but it has risen since the start of 2018, reflecting tighter lending conditions in some loan segments. Interest rates are still low compared to what they were in the previous decade and companies have good access to domestic bank loans.

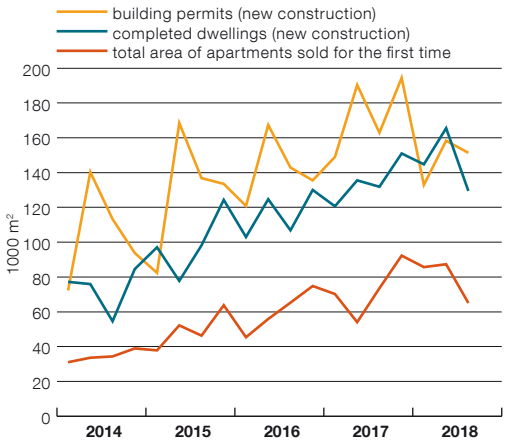
The growth in general government investment has slowed. The general government raised its investment in machinery and equipment from the level of last year, and invested less than a year earlier in buildings and facilities.

Figure 16. Gross fixed capital formation



Sources: Statistics Estonia, Eesti Pank

Figure 17. Building permits for dwellings and completed dwellings, and total area of apartments sold for the first time



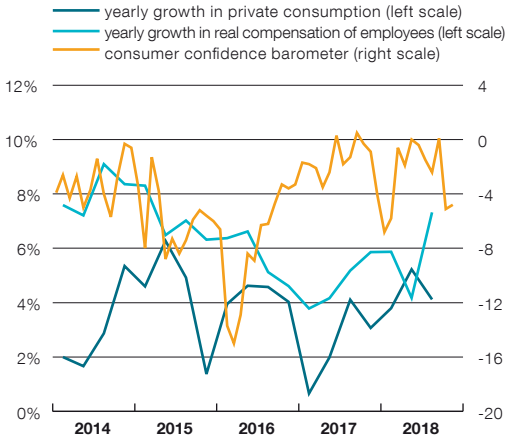
Sources: Statistics Estonia, Estonian Land Board

Gross fixed capital formation by the general government was 2.0% more than a year earlier at constant prices.

Having grown very rapidly in the second quarter of this year, investment by households in new residential property was 5.9% less in the third quarter than a year earlier. Less new residential space was granted usage permits in the third quarter than a year earlier, and less residential space was granted a construction permit (see Figure 17). There is still a lot of take-up for housing loans, but the growth in the volume of new loans has slowed. Competition is weak in the housing loan market and the average interest rate on new housing loans has risen a little in 2018, and it was around 2.5% in October.

The rate of growth in spending on private consumption by households was about the same in the third quarter as it was a year earlier (see Figure 18). Private consumption grew by 4.1% over the year at constant prices, but this was notably slower than the growth in real wage income earned by households. Data from the Tax and Customs Board show the real growth in the payroll was 7.2% in the third quarter, though such a high rate of growth may have been due to changes in the seasonal payment of wages (see the section on the labour market). As private consumption grew more slowly than wage income, household deposits grew rapidly in the third quarter. The growth in private consumption in the third quarter was driven most by increased spending on residential property and transport.

Figure 18. Private consumption



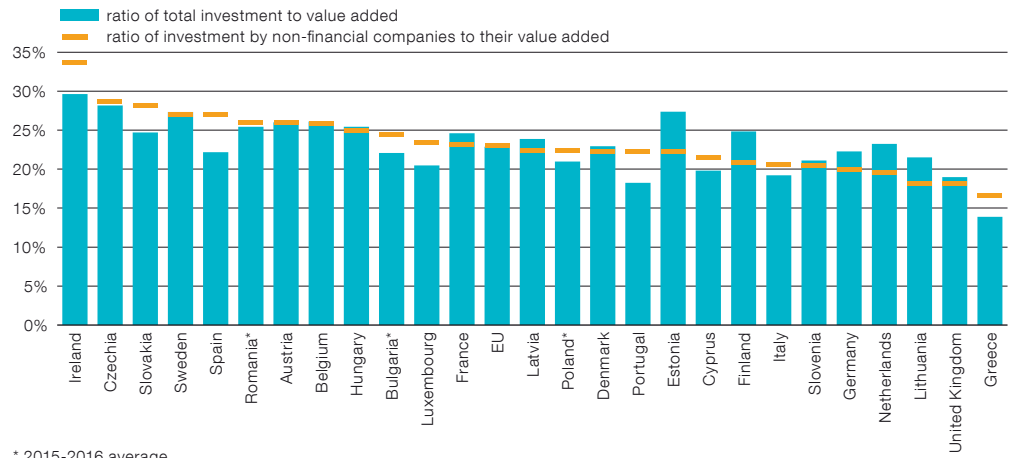
Sources: Statistics Estonia, Tax and Customs Board, European Commission

The growth in domestic demand in the third quarter was also supported strongly by corporate inventories growing faster than they did last year. Inventories increased most in manufacturing as commodities and materials were bought, and in retail where stocks of goods bought for sale were increased.

Box 4. The investment rate of the Estonian economy

Overshadowing the good performance of the Estonian economy in recent years is the low investment rate, which shows investment as a ratio to value added. It is especially companies that have invested quite weakly despite the good economic environment, and the ratio of investment by non-financial companies to their value added is a little below the average for the European Union (see Figure B4.1). The investment rate for the whole economy is one of the highest in the European Union, but that is largely because investment by the general government in Estonia as a ratio to value added is one of the largest in the European Union.

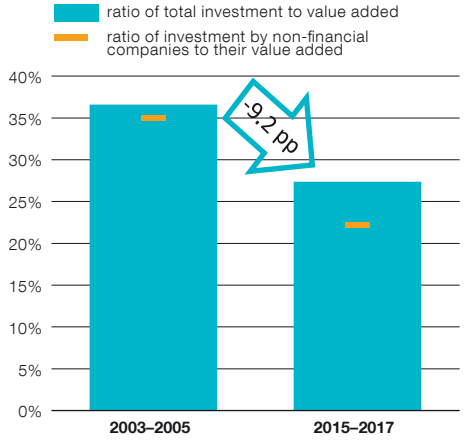
Figure B4.1. Ratio of investment to value added, 2015-2017 average



* 2015-2016 average.
Sources: Statistics Estonia, Eurostat, Eesti Pank calculations

It is largely because of the sluggish investment by companies in recent years that the investment rate has fallen by a quarter from its level of 10-15 years ago (see Figure B4.2). Investment in 2003-2005 was 36.6% of value added, but in 2015-2017 it was 27.4%. Rapid economic growth over the long term helps keep the ratio of investment and value added high, and this is why the lower rate of investment in the economy than previously is worrying.

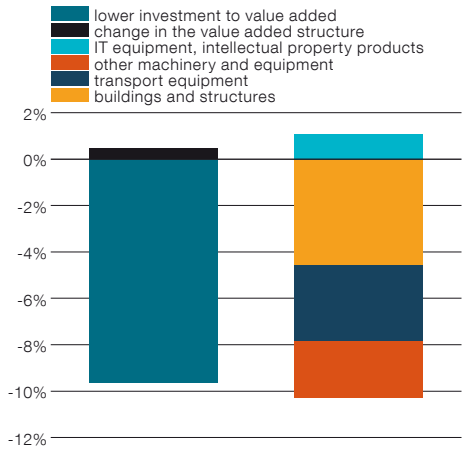
Figure B4.2. The investment rate in Estonia



Sources: Statistics Estonia, Eesti Pank calculations

The share of several parts of the service sector in the value added created in Estonia is larger than it was in 2003-2005, notably for information and communications, public administration and defence, and administrative and support service activities. It might be thought that the increased share of services is one reason why the investment rate has fallen. In fact the change in the structure of value added has actually restrained the fall in the investment rate (see Figure B4.3). Highly investment-intensive sectors like energy have also increased their share of value added created, and overall the sectors that have increased their share of value added created have an investment rate above the average, while those sectors that have lost ground in value added have on average lower investment.

Figure B4.3. Ratio of investment to value added

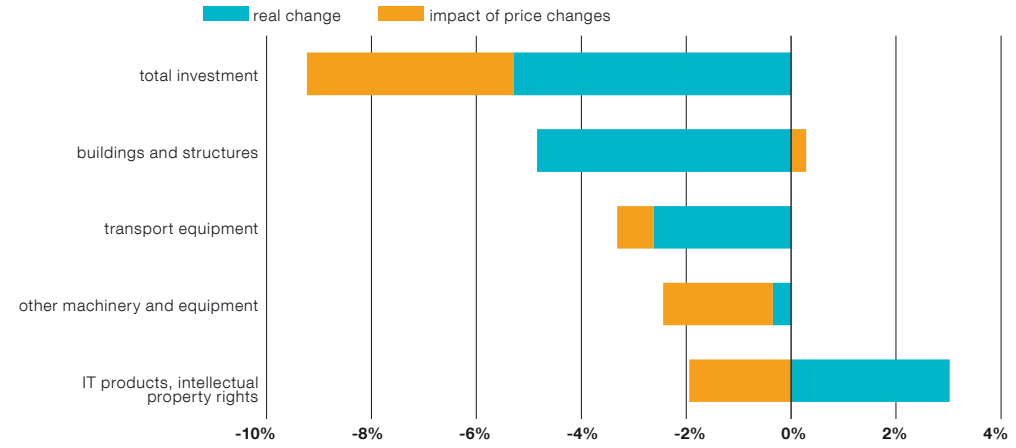


Sources: Statistics Estonia, Eesti Pank calculations

The biggest fall from 2003-2005 has been in investment in buildings and facilities as a ratio to value added (see Figure B4.3). Such investment in 2003-2005 was 19.1% of value added, but in 2015-2017 it was a quarter smaller at 14.5%. The fall in investment in buildings and facilities accounts for almost half of the drop of 9.2 percentage points in the total investment to value added ratio from 2003-2005. Investment in computer hardware, telecommunications equipment, and intellectual property as a ratio to value added has increased since 2003-2005.

On top of the structural changes in value added, the investment rate measured at current prices may be affected by differing rates of growth in the prices of capital goods and in value added. As technology has developed, the long-term rise in prices for capital goods has become slower than price rises elsewhere in the economy, and so the investment rate has fallen less since 2003-2005 when measured at 2003-2005 average prices than it has at current prices (see Figure B4.4). Calculated at 2003-2005 prices, the investment rate in 2015-2017 was on average 31.3%. This means that the part of value added that is directed to investment has also fallen in real terms, though by less than it did in current prices. Around half of the reduction of 9.2 percentage points in the ratio of total investment to value added comes from prices of capital goods rising more slowly than other prices in the economy.

Figure B4.4. Change in ratio of investment to value added, 2015-2017 average over 2003-2005 average



Sources: Statistics Estonia, Eesti Pank calculations

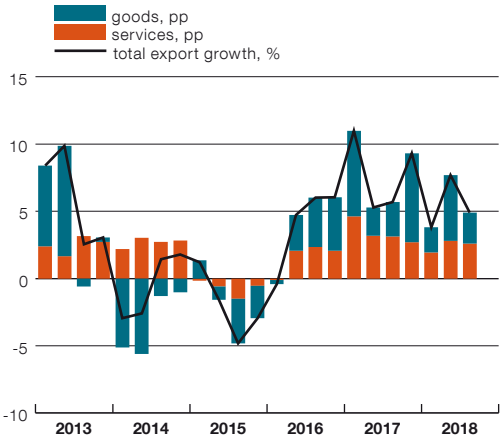
The fall in investment in buildings and facilities has come about entirely because there is now less construction in real terms in relation to value added than there was in 2003-2005. In contrast the ratio of investment in machinery and equipment to value added has mainly fallen because prices have risen substantially more slowly for machinery and equipment then they have in the rest of the economy. About the same amount has been invested in recent years in machinery and equipment in real terms as a ratio to value added as 10-15 years ago. Investment in computer hardware, telecommunications equipment and intellectual property has increased because of higher investment in real terms.

The investment rate of the Estonian economy is still one of the highest in the European Union, but the lack of interest from companies in investing has left the rate substantially lower of late than it was 10-15 years ago. Although around half of the decline in the ratio of investment to value added comes from prices of capital goods rising more slowly than other prices in the economy, the share of value added that is directed to investment has also fallen in real terms. Investment is needed to increase production capacity, and so the low rate of investment in the economy could limit the long-term growth in the economy.

EXTERNAL BALANCE AND COMPETITIVENESS

The turnover of foreign trade in the third quarter was large, as it had been in the second quarter, and even though external demand was adjusted downwards, the yearly growth was notably more than that in the same quarters of 2017. A large part of the faster growth came from growth in the turnover of mineral products, mainly re-exports of fuel, as fuels accounted for 15% of both exports and imports in the first three quarters of 2018, which is more than one third higher than the level of last year.

Figure 19. Export growth decomposed



Source: Eesti Pank

The indicator for core exports, which better describes the Estonian economy and measures exports where more than 50% of value added is of Estonian origin, shows the growth in exports in the first nine months of the year to be a little below that in the same months of 2017. This suggests that total growth in exports in 2018 will be less than that of last year. Last year total exports and core exports grew at current prices by an almost equal 8-9%, but in the first nine months of this year the growth in total exports of 11.2% shown in the foreign trade statistics is substantially more than the growth in core exports of 6.9%.

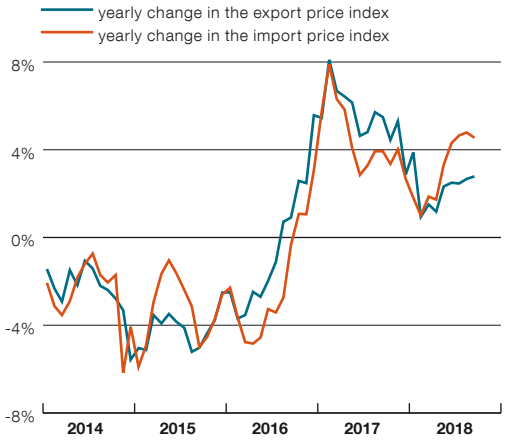
The balance of payments for the third quarter shows that exports of goods grew by 4% in the first nine months of the year and imports of goods grew by 7.5% (see Figure 19). The turnover of services also remains high as exports of services grew by 8% at current prices and imports by 12%. The deficit on the goods balance was more than one third as large again as in the first nine months of last year at 985.2 million euros, while the balance for services was practically the same at 1410.7 million euros (see Figure 20).

Terms of trade as a ratio of export prices to import prices have deteriorated and are at their level of 2016, with the future direction uncertain (see Figure 21). The decline in price competitiveness measured by the rise in the real exchange rate continued at the same pace. The real exchange rate has risen because the current exchange rate has strengthened as the currencies of Russia, Sweden and Norway have fallen against the euro, and also because inflation and wage rises remain higher than in foreign partner countries. The nominal effective exchange rate has appreciated by 2.2% over the year in data from September, while data from the second quarter show the GDP deflator-based real exchange rate has appreciated by 4.7%.

If there are no significant changes, domestic demand will continue to give stable support to demand for imports. There are no factors currently evident that would accelerate the growth in imports, as the middling level of growth in imports of capital goods does not suggest any notable acceleration in growth in investment. Domestic demand remaining strong and demand for exports falling indicate a weakening of the goods and services balance and the current account as the trade deficit widens. There were no significant movements in the financial account of the balance of payments in the third quarter.

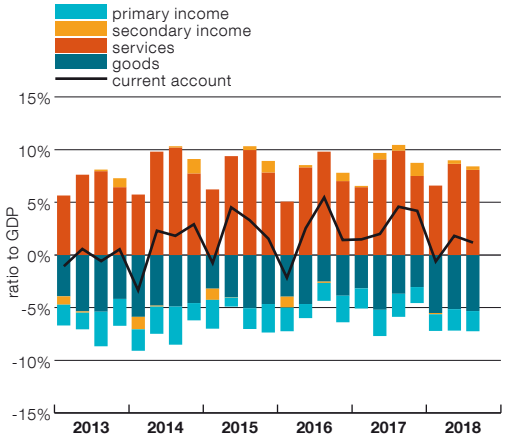
The net total of the current and capital accounts saw a surplus of 169 million euros in the third quarter of 2018. This means that the Estonian economy continued to be a net lender to the rest of the world, so the country as a whole invested more financial assets abroad than it received from there.

Figure 20. Export and import price indexes



Source: Statistics Estonia

Figure 21. The current account



Sources: Statistics Estonia, Eesti Pank

THE LABOUR MARKET

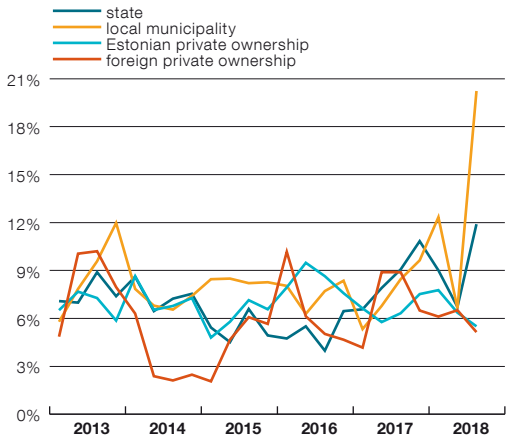
The yearly growth in average gross monthly wages increased from 6.4% in the second quarter to 7.5% in the third quarter. Wage growth slowed in the second quarter and accelerated in the third as wages were paid out more evenly under the impact of the income tax reform. In total wages grew slightly more slowly in the second and third quarters of 2018 than in the second half of 2017 and at the start of 2018. Wages have been growing faster than labour productivity because full employment has been achieved in the labour market for some time now. Labour shortages have been eased to some extent by relaxation of the rules on immigration in recent years. This has led to a particular increase in 2018 in the hiring of labour from outside the European Union on temporary contracts.

Wage growth was slowed by smaller rises in the minimum wage than previously, as it increased by 6.4% in 2018, and by the impact of the income tax reform. Income tax reform increased substantially the net wages received by employees earning up to around the average wage. This may have allowed employers to raise gross wages by a little less.

Wages rose more in the public sector in the first three quarters of 2018 than in the private sector (see Figure 22). Wages at foreign-owned private companies rose a little more slowly than they did in 2017, while the rate of growth at Estonian-owned private companies remained the same, but the wages of employees of the state and local government rose at a faster rate. Wage growth in local government employment increased from 7.6% in 2017 to 12.7% in the first three quarters of 2018 on average. This came mainly from faster wage growth in healthcare and education.

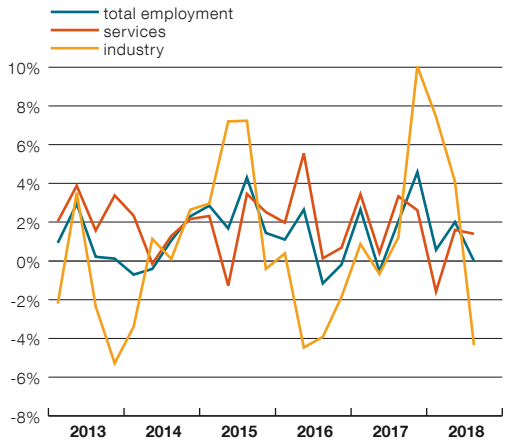
Growth in wages outstripped that in productivity in the third quarter of 2018 by more than it did in previous quarters. Real unit labour costs, which express the cost of labour in the whole economy as a ratio to GDP measured at current prices, rose by 2.9% in the third quarter of 2018. While the growth in labour costs increased, the growth in corporate profits slowed.

Figure 22. Yearly change in average wages by employer ownership



Source: Statistics Estonia

Figure 23. Yearly growth in employment from the Labour Force Survey



Source: Statistics Estonia

The picture is different in different sectors, as the rates of growth in productivity and wages were more aligned in construction and manufacturing than in sectors serving the private sector. The average wage in manufacturing rose more slowly than that in the economy as a whole, and wage growth slowed in construction. It was these sectors that saw an increase in the employment of foreign labour.

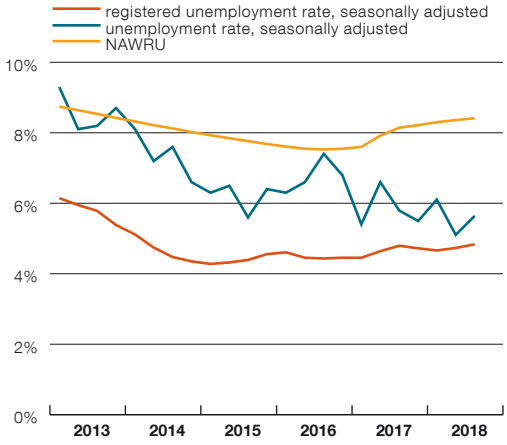
The Estonian Labour Force Survey shows that 68.2% of people of working age were in employment in the third quarter of 2018. The number of people in employment was about the same as a year earlier, but employment fell in industry and grew in the service sector (see Figure 23). The probability of being in employment estimated by the Labour Force Survey is

generalised for the population of Estonian residents on 1 January that year. If the population increases throughout the year because of immigration, the Labour Market Survey will underestimate the change in employment. Data from the Tax and Customs Board show the declared wages of non-resident employees to have increased rapidly throughout 2018, especially for workers from Ukraine. It is probable that many other workers from abroad have registered as tax residents of Estonia, because then the tax-free threshold applies consistently to their taxable wage. The data from the Tax and Customs Board show much faster growth in the number of waged employees in 2018 than the Labour Force Survey data do. The number of people declaring a wage rose by 3% in the third quarter, though 1% of this can be explained by wages being received more steadily during the holiday period.

The unemployment rate was 5.2% in the third quarter which was the same as a year earlier and as in the second quarter (see Figure 24). Data from Töötukassa show that the number registered as unemployed remained essentially unchanged in the second and third quarters of 2018. The work ability reform is adding some 1500 additional registered unemployed people each month, but the outflow from registered unemployment is about the same size as half of them find work and half of them stop being registered as unemployed for different reasons. Equally, fear of rising unemployment declined among households even though the unemployment rate is low. The share of households expecting unemployment to fall and the share expecting it to rise were equal in surveys in the third quarter.

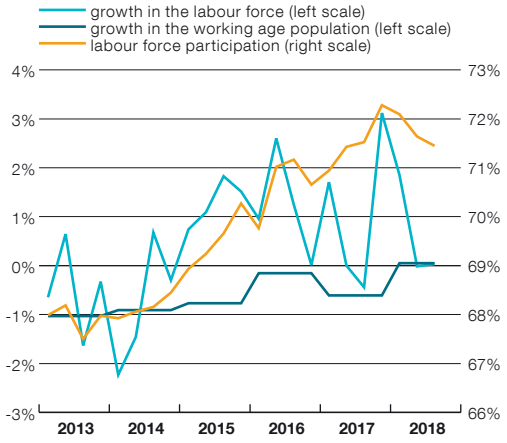
Surveys by the Estonian Institute of Economic Research show that labour shortages in 2018 remained at their highest level since the crisis. They show that the share of companies naming labour shortages as a factor hindering production was as high in services as it was at the peak of the previous economic boom in 2007. Labour shortages in services deepened slightly during 2018. The figure in manufacturing and construction is below its historical peak, and it did not rise in 2018.

Figure 24. Unemployment



Sources: Statistics Estonia, Töötukassa, Eesti Pank

Figure 25. The labour supply



Source: Statistics Estonia

The Labour Force Survey of Statistics Estonia found that the labour supply was unchanged from a year earlier (see Figure 25). The survey found that 72% of people aged 15-74 participated in the labour market in the third quarter, which is one of the highest figures in the European Union. Given the faster growth in the number of waged employees in the data from the Tax and Customs board, the Estonian Labour Force Survey may be underestimating the actual growth in the labour supply.

PRICES

Inflation was held up in the third quarter by rising energy prices and services prices. Inflation passed 10% for energy in the second half of the year (see Figure 26). This is mainly because of the earlier rise in the price of oil, which raised heating costs for residential property at the start of the heating season. Prices for solid fuels and electricity, which depend very much on the weather, also increased rapidly. However, the oil price, which had been rising on global markets for more than a year, started to fall in November.

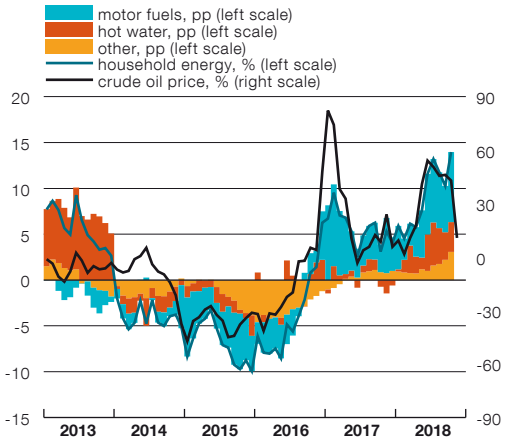
Food price inflation peaked in early 2018 and then started to slow. Inflation was pulled down by falling prices for food commodities on global markets. The fall in prices was restrained though because bad weather in Europe has meant the past two years have been relatively unfavourable for agriculture. Harvests of vegetables and grains are particularly down.

Core inflation, which covers manufactured goods and services, was unusually low in the first half of the year in Estonia. In the second half of the year it picked up as prices for services rose, and it reached 5% in October. A large part of this rise in prices came from higher prices for air tickets, which have been very variable. Inflation has also risen for manufactured goods in recent months, which may be partly because the euro has depreciated against the US dollar.

State regulated prices have risen relatively slowly in recent years. The Competition Board has done good work in managing monopolies. Most prices in Estonia are set freely, but a part of the change in prices for utility services must be coordinated with the state. Prices for water and wastewater services are generally changed at the start of the year, and this year they went up by less than 2%. Prices for natural gas, electricity and heating energy can also to some extent be considered regulated prices, as distribution network fees play a large part in setting them.

Tax rises contributed less to inflation in the second half of 2018 as some of the tax rises came more than a year earlier. The average contribution of indirect taxation to inflation in 2017 was 0.8 percentage point, but in 2018 that was down to 0.6 percentage point.

Figure 26. Growth in energy prices



Sources: Statistics Estonia, Bloomberg

THE GENERAL GOVERNMENT

The average growth in general government spending in the third quarter was a little slower than in the first half of the year. The most notable fall from a year earlier was in the growth in investment. General government investment was 25% more in the first quarter than a year earlier, but in the third quarter the rate of growth in investment had slowed to close to 8.5%. In a long-term perspective though, this can be considered a rapid rate of growth. The ratio of general government investment to GDP remained one of the highest in the euro area. The yearly growth in current spending slowed by less than in the second quarter and labour costs even rose faster. In consequence the yearly growth in general government final consumption measured at current prices also accelerated to 8%.

Slower growth in spending was expected and was in line with the state budget confirmed for 2018.

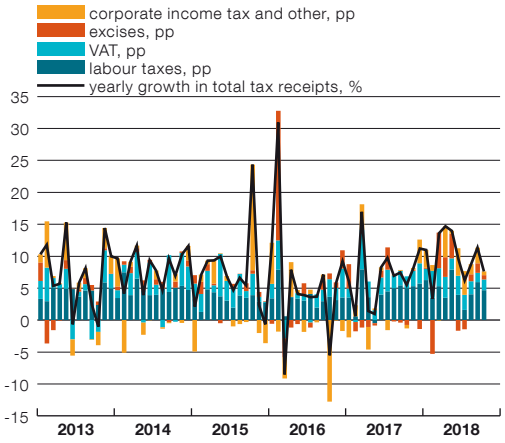
The growth in tax revenues was also slower in the third quarter than in the first half of the year. Growth in receipts of consumption taxes slowed above all. Although faster wage growth had a positive impact on labour tax revenues, the new rules for individual income tax has meant that monthly receipts vary widely and depend on the behaviour of taxpayers. The allocations for the state budget were notably smaller in July

and August than in the previous and subsequent months, and so contribution of labour taxes to the growth in general government revenue was a little smaller than previously (see Figure 27).

Investors took more out in dividends from companies in the third quarter than a year earlier, which boosted the receipts of corporate income tax. On top of this, a new income tax prepayment obligation came in for the banks in September, and this boosted the yearly growth in tax revenues even further. In total over 60% more was received in corporate income tax in July to September than in the same months of the previous year.

In general tax receipts remained very good. In the first 10 months of the year in total, the tax revenues of the general government were some 10% larger than in the same months of last year.

Figure 27. Tax receipts in the state budget



Source: Tax and Customs Board

ECONOMIC FORECAST 2018-2021

The Eesti Pank economic forecast is produced jointly by experts from the central bank's Economics and Research Department and Financial Stability Department. It is a part of the joint forecast for the euro area produced by the euro area central banks and the European Central Bank, which uses shared assumptions about interest rates in euro area money markets, the euro exchange rate and commodities prices. The outlook for demand and prices in Estonia's trading partners is based on forecasts prepared by other central banks in the euro area at the same time. The external assumptions used in the forecast are based on information available as at 27 November 2018, and the Estonian economic indicators on data available as at 30 November 2018. The Eesti Pank forecasts are compiled using EMMA, the macro-model of the Estonian economy developed and regularly updated by Eesti Pank.

THE INTERNATIONAL ECONOMIC ENVIRONMENT

International institutions expect that the global economy will grow rapidly this year through investment, favourable funding conditions and growth in employment. After that, growth is more likely to slow. The most recent economic outlook from the OECD[11] forecasts that growth in the global economy will slow from 3.7% this year to 3.5% in 2019-2020. Growth is no longer as broadly based or as even as it has been in the past couple of years, as the growth cycles of different countries have fallen out of sync. The economies of the larger countries have reached or are just reaching the downswing of the economic cycle and in future growth there will slow. Growth remains fast at the moment mainly because of momentum, but there are clearly more factors that pose a threat to growth in the future than there are factors that would support growth.

The trend for growth in advanced economies in the future is downwards. Growth in the US economy is still increasing this year, but looking forwards it will start to slow. Import restrictions will start to reduce foreign demand and the fiscal stimulus from the government is only temporary. Strong domestic demand means that growth will still remain above its sustainable level throughout the forecast horizon. Other large advanced economies have already passed the peak of the cycle and growth will slow moderately this year and in the coming years. The main hindrances to growth in the euro area are falling foreign demand and the weak growth in productivity that is a consequence of labour shortages. The same applies for Japan. The performance of the economy in the United Kingdom in the forecast horizon will depend largely on the agreement reached for its exit from the European Union. The OECD estimates that growth in advanced economies will slow from 2.2% in 2018 to 1.7% in 2020.

Growth in emerging economies well be affected in future by trade tensions and by problems in Turkey. Growth in the Chinese economy will be slowed substantially by international trade barriers and a reduction in infrastructure investment, and this will put a lot of pressure on other emerging markets in Asia. The slower growth in the Chinese economy will be offset by faster growth in several smaller countries in other regions such as Brazil, Mexico, Saudi Arabia and South Africa. The Indian economy has undergone several structural reforms such as changes to VAT and a reduction in the share of cash in the economy, and growth will remain stable in the coming years because of strong private consumption and investment. The currency devaluation in Turkey at the end of summer sharply reduced domestic demand and recession is expected there next year. Growth should return in 2020. The OECD estimates that growth in emerging economies in total will be 5.2% this year, but it will fall by 0.2 percentage point in 2019. In the longer horizon, the current rate of growth should return.

The risks to further growth in the global economy have increased substantially this year. Trade barriers between the US and the rest of the world have risen and international trade has not grown notably since the second quarter. Exporting companies around the world complain about a reduction in orders. Equally, the more influential central banks around the world have started to tighten their monetary policy, which is certain to cause problems in emerging economies. Foreign capital will start to move more and more into saf-

11 OECD Interim Economic Outlook, November 2018.

Table 2. External assumptions in the forecast

					June 2018 projection		
	2018	**2019**	**2020**	**2021**	**2018**	**2019**	**2020**
Foreign demand growth (%)*	3.5	3.2	3.5	3.3	4.7	4.0	3.5
Oil price (USD/barrel)	71.8	67.5	66.8	65.9	74.5	73.5	68.7
Interest rate (3-month EURIBOR, %)	-0.32	-0.26	-0.01	0.33	-0.31	-0.16	0.22
USD/EUR exchange rate	1.18	1.14	1.14	1.14	1.20	1.18	1.18

*Foreign demand growth is the weighted growth of imports of trading partners
Source: European Central Bank

er financial environments in advanced economies, where the risk level is lower and interest rates are rising. Developing countries, where a large part of debt is financed in foreign currencies and the need for financing is large, will become much more vulnerable as this happens. The unresolved issue of the exit of the United Kingdom from the European Union continues to cause tensions, as do geopolitical stresses in the Middle East including the US sanctions on Iran, and the contretemps between the new Italian government and the European Commission.

Growth will slow in the years ahead in the euro area economy primarily because of a decline in foreign demand and consequently in net exports and in industrial output. This will happen because of escalated trade tensions and slower growth in global trade volumes than in the previous year. Even so, real growth in euro area GDP will exceed its sustainable level almost until the end of the forecast horizon and domestic demand will be strong, as labour market conditions continue to improve. Unemployment will fall in the euro area and incomes will continue to rise. The rise in employment will slow a little towards the end of the forecast horizon and labour shortages will become an ever sharper problem. An accommodative monetary policy will help to keep financing conditions favourable in future and accessibility of loans will be good while low interest rates create favourable conditions for investment. The three-month EURIBOR will remain in negative territory throughout next year too, though after that it will start to rise gradually. The recovery in inflation in the euro area will be helped in the coming years by a gradual acceleration in wage growth, and by the end of the forecast horizon inflation will reach 1.7%.

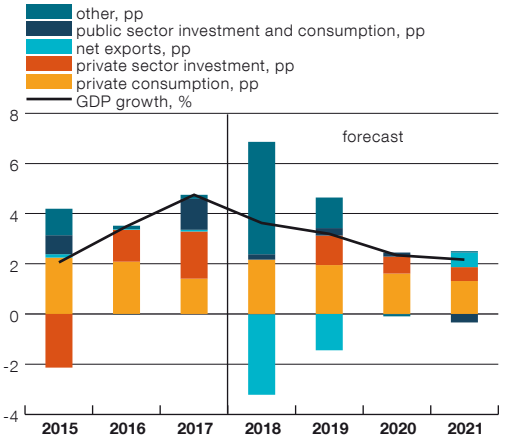
Prices for commodities are expected to fall in future. The oil price will be lower throughout the forecast horizon than was forecast in June and will average 66.8 dollars per barrel in 2020 (see Table 2). Oil production in the US has reached record levels. Increased uncertainty about the outlook for growth in the global economy and the sanctions imposed on Iran by the USA have led the oil price to fall since peaking in October 2018 by more than 30%, to below 60 dollars a barrel by the end of November. However, the price of oil may be raised by planned limits on production by OPEC and the build-up of tensions in the Middle East. Price pressures will gradually increase in most economic regions in the coming years. However inflation will not move in the same direction in all countries, and it will depend on commodities prices and to a large extent on the economic cycle.

The economic circumstances of Estonia's main trading partners are good, but growth in the economies will still slow in the future. The main reason is the increase in uncertainty caused by global trade tensions, which will slow growth around the world. However no substantial deterioration in economic activity in Estonia's trading partners is expected, and growth in those economies will remain faster than the average for the euro area. Growth in the Finnish and Swedish economies will be close to 2.5% in 2018, but it will slow next year because of the unpromising external environment and slower growth in domestic demand. The economies of Latvia and Lithuania will grow strongly this year and although their momentum will fade moving forwards, the autumn forecast of the European Commission expects growth of around 3% in 2019 and 2020. The growth in Russian GDP will be stable in the years ahead, but sanctions and structural reforms mean that it will remain within the potential growth of 1.5%-2.0% forecast by the Russian central bank.

ECONOMIC GROWTH

Growth is slowing in the Estonian economy and the output gap will start to narrow during the forecast horizon. The economy will grow at a similar rate in 2019 to that of 2018, but after that growth will fall below 3%. The forecast is for growth of 3.2% in 2019, 2.3% in 2020 and 2.2% in 2021 (see Figure 28). The economy is currently running at full steam and there is a shortage of available resources. In consequence, any further rapid growth in the economy will be hindered by supply-side limits such as difficulties in finding labour and technical limits on the use of equipment. At the same time demand-side factors will weaken, most notably the growth in foreign demand. The main indicators for the economic fore-

Figure 28. Contributions to GDP growth



Sources: Statistics Estonia, Eesti Pank

Table 3.Economic forecast by key indicators*

						Difference from June projection		
	2017	**2018**	**2019**	**2020**	**2021**	**2018**	**2019**	**2020**
Nominal GDP (EUR billion)	23.62	25.62	27.38	28.89	30.31	0.82	0.81	0.78
GDP volume**	4.9	3.6	3.2	2.3	2.2	0.1	-0.4	-0.2
Private consumption expenditures***	2.6	4.3	3.9	3.2	2.6	0.3	-0.5	0.1
Government consumption expenditures	0.6	-0.5	1.2	0.3	-0.5	-2.2	-1.1	-1.1
Fixed capital formation	12.5	1.3	5.3	3.2	1.3	2.0	-0.4	-1.0
Exports	3.5	1.5	1.8	3.5	3.3	-2.0	-3.1	-0.4
Imports	3.6	6.1	3.9	3.6	2.6	-0.2	-0.8	-0.6
Output gap (% of potential GDP)	2.7	2.9	2.9	2.1	1.4	0.6	0.1	-0.2
CPI	3.4	3.5	2.6	2.1	1.9	0.7	0.1	0.2
Core inflation	1.3	1.6	2.4	1.9	1.7	0.5	-0.1	0.0
Services	2.7	2.9	3.8	2.8	2.8	1.0	-0.3	-0.4
Non-energy industrial goods	0.0	0.4	1.1	1.0	0.6	0.0	0.3	0.4
Energy	5.5	9.1	0.7	-0.1	0.4	2.0	0.7	1.0
Food, including alcohol and tobacco	6.4	4.4	3.7	3.4	3.0	0.4	0.0	-0.1
HICP	3.7	3.5	2.9	2.4	2.2	0.7	0.0	0.1
GDP deflator	3.9	4.7	3.6	3.1	2.7	0.5	0.2	-0.1
Unemployment rate (% of the labour force)	5.8	5.8	6.7	6.9	6.9	-1.1	-1.3	-1.3
Employment****	2.7	0.7	-0.4	0.0	0.0	0.8	0.0	0.1
Average gross wage	1217	1303	1384	1468	1555	1.0	-1.0	0.0
Average gross wage growth	6.9	7.1	6.2	6.0	6.0	1	-1	0
ULC	4.7	6.8	4.4	3.6	3.8	3.6	2.1	0.4
GDP per employee	2.1	3.0	3.6	2.3	2.1	-0.6	-0.4	-0.3
Private sector debt, outstanding amount (non-consolidated)	2.7	7.1	6.7	5.8	5.5	1.2	0.4	-1.0
Private sector debt, outstanding amount (% of GDP, non-consolidated)	114.7	113.1	112.9	113.2	113.9	-1.4	-0.7	-1.4
Current account (% of GDP)	3.3	0.5	-1.0	-1.0	-0.7	-1.1	-2.3	-2.7
Budget balance (% of GDP)*****	-0.4	0.5	0.5	0.3	0.3	1.0	0.7	0.6
Cyclical component (% of GDP)	0.1	0.4	0.55	0.5	0.5	0.1	0,0	-0.1
Temporary measures (% of GDP)	-0.34	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0
Structural budget balance (% of GDP)	-0.16	0.2	0.05	-0.2	-0.2	0.9	0.75	0.7

* Numbers reported are annual rates of change in per cent, if not noted otherwise, ** GDP and its components are chain-linked, *** including NPISH, **** employment by domestic production units; ***** the budget balance forecast considers only those measures on which sufficient information was available at the date of the forecast.
Sources: Statistics Estonia, Eesti Pank

Table 4. Estonian economic forecasts by other institutions

	GDP real growth, %					CPI inflation, %				
	2016	**2017**	**2018**	**2019**	**2020**	**2016**	**2017**	**2018**	**2019**	**2020**
Eesti Pank	3.5	4.9	3.6	3.2	2.3	0.1 (0.8*)	3.4 (3.7*)	3.5 (3.5*)	2.6 (2.9*)	2.1 (2.4*)
Ministry of Finance	2.1	4.9	3.6	3.0	2.9	0.1 (0.8*)	3.4 (3.7*)	3.3 (3.3*)	2.8 (3.0*)	2.4 (2.6*)
European Commission	3.5	4.9	3.5	2.8	2.6	0.8*	3.7*	3.5*	3.3*	2.5*
IMF	2.1	4.9	3.7	3.2	3.0	0.8*	3.7*	3.0*	2.5*	2.3*
OECD	3.5	4.7	3.3	3.5	2.3	0.8*	3.7*	3.1*	2.9*	2.8*
Consensus Forecast	3.5	4.9	3.5	3.2		0.1	3.4	3.4	3.0	
SEB	2.1	4.9	3.4	3.0	2.8	0.8*	3.7*	3.4*	2.5*	2.5*
Swedbank	3.5	4.9	3.5	3.2	2.7	0.1	3.4	3.4	2.8	2.2

* HICP
Sources: Eesti Pank, December forecast 19.12.2018; MoF, Summer 2018 forecast 11.09.2018; European Commission, Economic Forecast, Autumn 2018. 08.11.2018; IMF, WEO, October 2018, 03.10.2018; OECD, Economic Outlook, November 2018, 21.11.2018; Eastern Europe Consensus Forecasts, November 2018; SEB, Nordic Outlook, November 2018, 13.11.2018; Swedbank Economic Outlook 08.11.2018

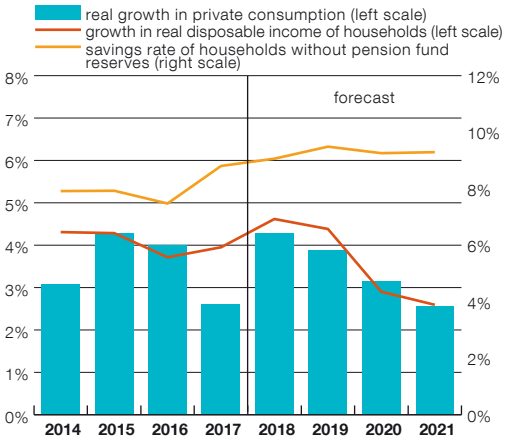
cast are shown in Table 3 and compared with the forecasts of other institutions in Table 4.

The probability of a sharp drop in growth or even of a recession is larger than in previous years, and the danger comes mainly from the external environment. Barriers to international trade and tightening monetary policy have so far held back the economies in emerging nations, but their effect could easily pass through to Europe as confidence wanes. This would apply the brakes to the growth in the Estonian exporting sector.

The strong domestic market will support the economy in the years ahead as private consumption and investment are growing faster than the economy as a whole. Strong domestic demand will ease the impact of slower growth on foreign demand, but there is a dark side to this too. Economic growth based only on domestic demand could lead branches of the economy that focus on the domestic market, such as construction and services, to overheat.

Pressure to reduce employment in branches of the economy with low productivity remains high. Relatively more people work in manufacturing in Estonia than in the other Baltic states, and productivity is lower in manufacturing than in other branches of the economy. This indicates that there are quite a lot of low productivity jobs in Estonia that could disappear in the coming years. Faster wage growth could increase the need for these jobs to disappear. If these jobs were to disappear it would be structural unemployment that would increase, as retraining employees and moving them into other branches of the economy takes time.

Figure 29. Private consumption and disposable income of households

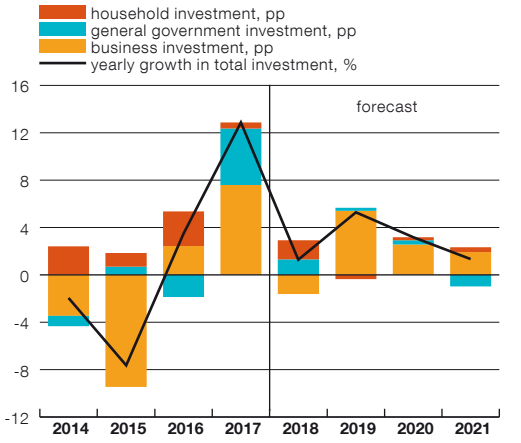


Sources: Statistics Estonia, Eesti Pank

The growth in private consumption will start to slow in the years ahead (see Figure 29). In 2018 private consumption will grow by 4.3%. The very rapid growth in incomes this year has seen households increase their consumption and also their savings, which were around one tenth of income in 2018. Wage growth and the accompanying growth in household incomes will slow in the years ahead and so the growth in private consumption will calm down a little. The household saving rate will change little during the forecast horizon.

The increase in investment in residential property, which was very strong this year, will stop in 2019 (see Figure 30). The amount of new housing space that has received a construction permit has fallen steadily in yearly terms in the past three quarters. This suggests that slightly fewer residential buildings will be completed during the next year than this year. Demand for new housing properties is held high by the rapid rise of wages over a long period, low interest rates, high levels of confidence among households, the desire to own modern housing, and urbanisation. However these factors can no longer be expected to give an additional push to growth in demand. Growth in investment in residential property may also be restrained at the end of the forecast horizon by stricter building standards. The average square metre price in an apartment transaction will rise more slowly, though this will be partly because the growth in the share of transactions that are for new apartments will fade. The average square metre price for apartment transactions will probably rise a little more slowly than household incomes.

Figure 30. Gross fixed capital formation



Sources: Statistics Estonia, Eesti Pank

The growth in housing loans will slow a little as fewer new residential properties are added and the number of real estate transactions will no longer increase at the same rate. Competition has declined in the market for housing loans and is unlikely to increase in the years ahead. The banks are generally conservative in their approach to housing developments and the volume of loans issued for development projects remains modest. The role of other funding sources, primarily own funds and crowdfunding, in financing residential property development will also be important in future.

Corporate investment will increase in 2019. Growth in corporate investment has been held back this year by the high reference base in the first half of last year, which was due to one-off transactions in transportation and storage, and corporate investment will fall by 1.8%. Investments aimed at increasing efficiency, which are investments in machinery and equipment and in computer systems, started increasing strongly in 2017, and imports of machinery and equipment have increased solidly throughout 2018. If the economies of Estonia and its trading partners continue to do well in 2019, corporate investment will increase. As access to funding remains good, companies should not face any hurdles if they feel the need to make investments.

The ability of companies to finance investment will be good during the forecast horizon. The capacity for lending of most of the banks operating in Estonia is good. There is no sign of a reduction in competition in the market for corporate loans as a whole, though there may be less competition in certain segments. There are fewer lenders in the market offering large loans. There will probably be an increase in the competition to lend to small companies, which has so far been weaker. Loan interest rates remain favourable, though the average interest margin may rise a little. The options for companies to access capital from the non-bank financial sector will probably widen. The growth in the debt of Estonian companies will accelerate. Loans taken by companies from the domestic banking sector will continue to grow faster than total debt, though borrowing from outside of domestic banks will also increase. The buffers that companies hold and the increase in their profits will allow them to fund their investments from their own funds as well.

The growth in general government investment will slow throughout the forecast horizon. Increased take-up of support from the European Union structural funds has helped to increase general government investment in recent years. The use of structural funds will also increase a lit-

tle in 2019, but they will provide less support for general government investment than earlier. The use of structural funds will decline from 2020 and growth in government investment funded from its own resources will also slow.

The current economic cycle peaked in 2017, and this also applies to growth in external demand. The growth in demand for exports is by now about one percentage point lower than was estimated in the June forecast. Despite the relatively good external environment (see Figure 31), growth in exports in 2018 and 2019 will probably be weaker than it was in 2017. Growth in exports in the medium term will start to be affected by weakening foreign demand. This assumption does not account for the risks of possible trade wars, which could sharply change demand and worsen the outlook seriously were they to happen.

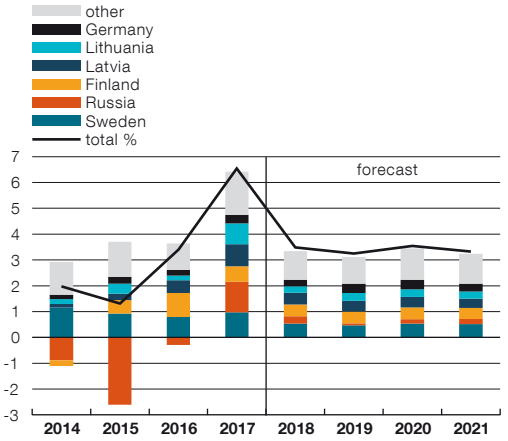
The risks to the forecast for export growth are on the downside. Significant factors other than trade wars include the fall in price competitiveness, which is seen in the less favourable terms of trade than those of 2017, and in the appreciation of the real exchange rate of the euro. One factor reducing the growth in exports is the decline in the surplus for goods under merchanting from 2017 to 2018.

The ratio of export prices to import prices has fallen to around its level of 2016 in the data so far available. The appreciation in the real effective exchange rate is partly due to exchange rate movements, but mainly it is due to higher inflation and wage rises than in foreign partner countries. Data from the second quarter show that the real exchange rate has appreciated over the year by 10-12% since 2015, and the total impact of this has not yet been passed on into the economy. Experience from other countries has shown that the total impact of the appreciation of the real exchange rate is only felt by the economy after a lag of several years (see Box 6). The forecasts for domestic inflation and wage rises indicate the real exchange rate will probably continue to strengthen.

Growth in imports is supported by domestic demand, which has not particularly changed and is keeping demand for imports stable. At the same time there is no evidence that growth in imports will increase because the middling level of imports of capital goods does not confirm the expectations of faster growth in investments in the medium term. Domestic demand remaining strong and demand for exports falling indicate a weakening of the goods and services balance and the current account as the trade deficit widens, despite the stable net exports of services, as services account for around 30% of total exports (see Figure 32).

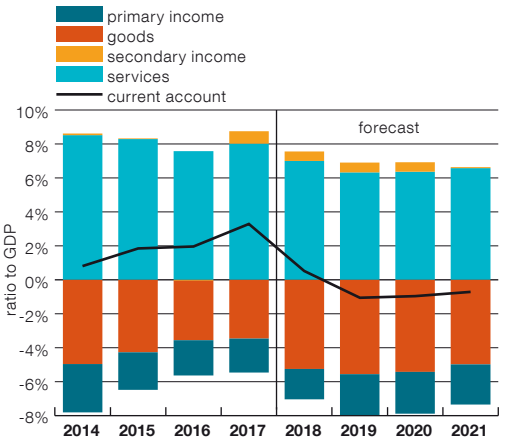
Wages will continue to rise strongly at the start of the forecast horizon, but in the longer term this growth will slow together with growth in the economy (see Figure 33). Wage growth will be driven faster by labour shortag-

Figure 31. Growth in foreign demand in percentage points



Sources: European Central Bank, Eesti Pank calculations

Figure 32. The current account



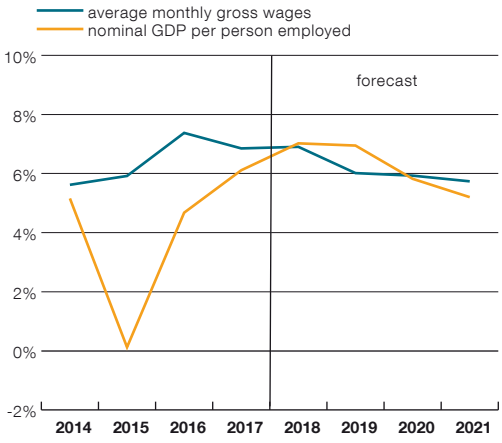
Sources: Statistics Estonia, Eesti Pank

es that push companies to use higher wages to attract employees away from their competitors. There will also be some factors that restrain the growth in wages, without which wages would rise even faster. Wage pressures will be eased at the start of the forecast horizon by the income tax reform that came in at the start of 2018, which substantially boosted the rise in the net wage of the low-paid. This tax gain may have allowed employers to raise gross wages by a little less. Looser rules on immigration make it easier to hire employees from abroad. In the longer term wage pressures will be eased by the slower growth in labour shortages. This will happen partly because of weaker foreign demand for the output of Estonian companies, and also because the recovery in investment will boost the productivity of labour.

The average wage in the public sector will rise faster than that in the private sector. As employees in the public sector benefited notably less than those in the private sector from the income tax reform, the reform has done less to slow wage growth than in the private sector. The average wage in education will rise by around 10% in 2019 and by more than the average in the economy in the years ahead, as the government wishes to enact its promise to raise the average wage of teachers to 120% of the average wage in Estonia. A new collective agreement was signed in healthcare for the years 2019 and 2020, which sees the growth in the minimum hourly pay for doctors increase to 9.3% in 2019. The minimum hourly wages for nurses will rise by 8.8% and that for carers will rise by 10.7%, both of which are faster than the average in the economy. The rise in the minimum hourly pay will be slower in 2020 at close to 7.5%, but still faster than the forecast rise in the average wage of the whole economy.

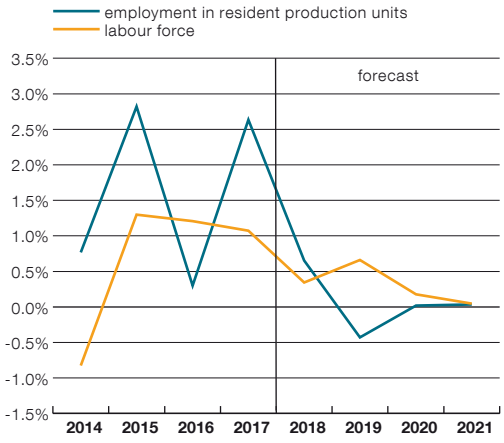
Unit labour costs will rise more slowly during the forecast horizon. Companies with low productivity and low profitability will not be able to compete for labour and will have either to abandon production or to move out from Estonia. The rapid rise in the minimum wage will make things harder for them, as it will affect an ever-increasing share of their employees. Although the labour share in Estonia has risen to exceed the average level for the European Union, it will not fall significantly during the forecast horizon. A larger labour share means lower productivity of capital, and this plays an important role in investment decisions. This indicator has fallen in Estonia over time and is approaching the figures seen in the wealthier European Union countries.

Figure 33. Wage and productivity growth



Sources: Statistics Estonia, Eesti Pank

Figure 34. Annual growth in employment



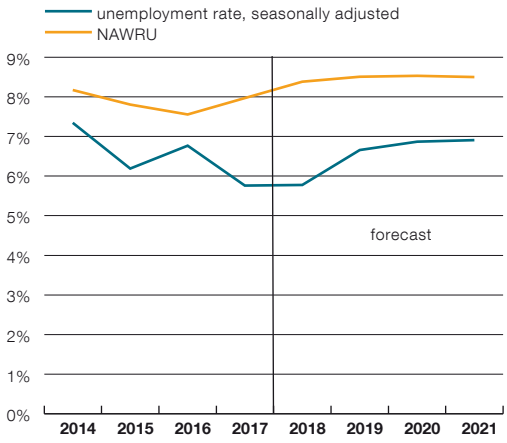
Sources: Statistics Estonia, Eesti Pank

The labour supply will increase in the years ahead (see Figure 34). The working age population is increasing as the migration balance is positive and the natural change is small as unusually small birth cohorts are leaving working age. Social security reform and improving general health mean that labour participation will continue to increase until 2020. The population forecast used here does not take account of the big increase in foreign labour in 2018 and these workers may in future increase immigration and

the size of the population. For this reason, the growth in the labour supply may be underestimated in this forecast.

The Work Ability Reform will increase both the participation rate and the natural rate of unemployment, but by less than was earlier forecast (see Figure 35). Box 7 discusses the impact of the Work Ability Reform on the labour market in more detail. The main reason for adjusting the forecast downwards is that the share of those not yet employed among those who are assessed to have partial ability to work is smaller than was assumed. The data also indicate that the probability of those who are partially able to work finding a job is much larger than was previously forecast. The outflow from receiving benefits for partial ability to work for reasons other than finding a job is also larger, which means that the impact of the reform on average lasts for a shorter time than was earlier forecast.

Figure 35. Unemployment

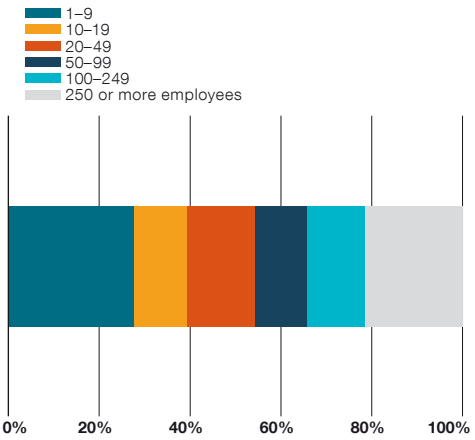


Sources: Statistics Estonia, Eesti Pank

Box 5: The distribution of investment by size of company and its relation to productivity

Around a quarter of those employed by companies work for businesses with 1-9 employees, and over 90% of all active companies in the economy are of this type. Companies with 10-99 employees account for around 40% of those in employment and the remaining third of them work for businesses with over 100 employees (see Figure B5.1).

Figure B5.1. Distribution of employment by size of enterprises in 2016

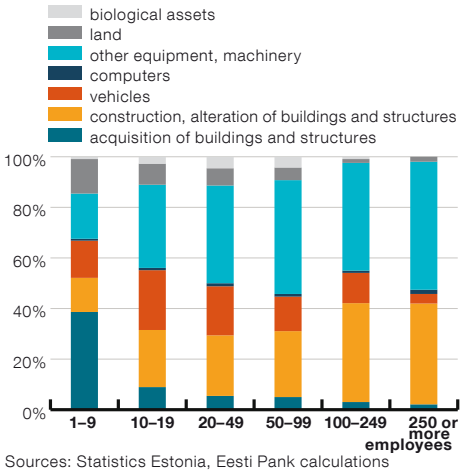


Sources: Statistics Estonia, Eesti Pank calculations

The investment by companies of different sizes in material fixed assets varies substantially by asset type. It can generally be said that the larger the company the larger the share of capital that is in construction and machinery and equipment, and the smaller the company, the more it is spending is on purchasing transport vehicles and buildings and land. Of particular note is the group of companies with 1-9 employees, whose investments have provided 42% of all the investment by the business sector in recent years. The purchase of buildings is the largest share of the investments by this size of company, and it averages around 40% of investment in fixed assets, which is many times more than at larger companies (see Figure B5.2).

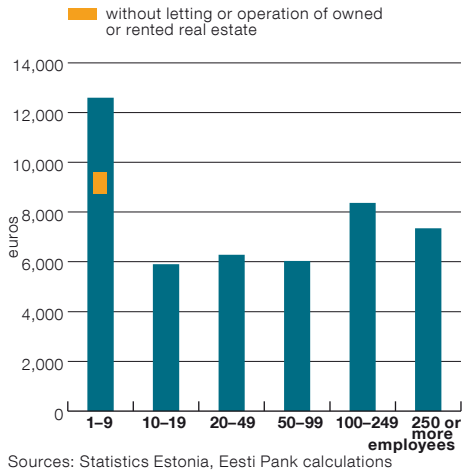
The spending by micro-enterprises with fewer than 10 employees on purchasing buildings is proportionally so high mainly because of the sector called 'real estate project development, letting of their own or rented property, or property management'. Some 98% of companies oper-

Figure B5.2. Structure of gross fixed capital formation, 2015-2016 average



Sources: Statistics Estonia, Eesti Pank calculations

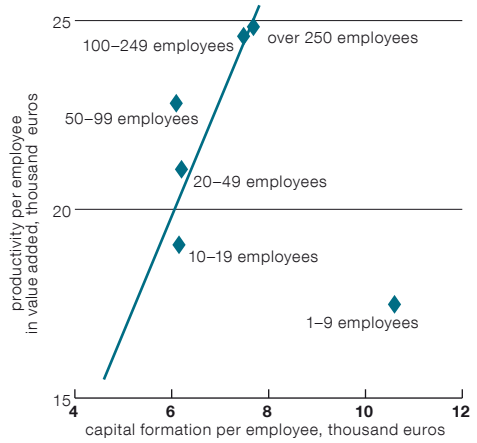
Figure B5.3. Gross fixed capital formation per employee, 2015-2016 average



Sources: Statistics Estonia, Eesti Pank calculations

ating in this sector have 1-9 employees. They account for fewer than 1% of all those employed in the total business sector, but their purchases of buildings account for around 65% of all the buildings bought by the business sector. Even without this specific sector, the spending per employee by micro-enterprises on purchasing buildings is several times more than it is at larger companies and the total amount of investment in fixed assets per employee has been largest at those enterprises with fewer than 10 employees (see Figure B5.3).

Figure B5.4. Capital formation and productivity per employee, 2015-2016 average



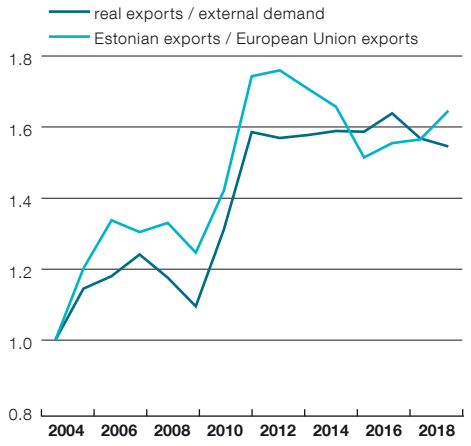
Sources: Statistics Estonia, Eesti Pank calculations

Larger investments should raise productivity, and data for the recent past and for 2005-2016 on average show this generally to be the case. The exception to this is the class of micro-enterprises. In 2005-2016, investing one euro per employee allowed companies with 10 or more employees to create value added per employee of 3-3.7 euros, but for companies with fewer than 10 employees the value added created was on average around 1.5 euros, or less than half as much. The reason probably comes from differences between sectors and business models, but the scale effect is also apparent, as larger companies create more value added per employee even when investments are at more or less the same level (see Figure B5.4).

Box 6.The risk of a fall in price competitiveness

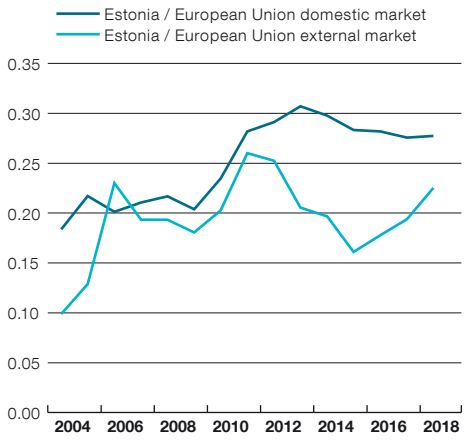
The rate of growth in exports has fallen in the past couple of years from 4.5% in 2016 to 3.5% in 2017 and it is forecast to be 1.5% this year. The peak of the current economic cycle and of foreign demand came in 2017, but the growth in exports does not reflect this. The favourable demand environment has so far supported strong exports, but the growth in them is slowing. Growth in core exports, where over 50% of the value added is created in Estonia, was mainly

Figure B6.1. Market share of exports



Sources: Statistics Estonia, Eurostat, European Central Bank

Figure B6.2. Market share of exports in %



Source: Eurostat

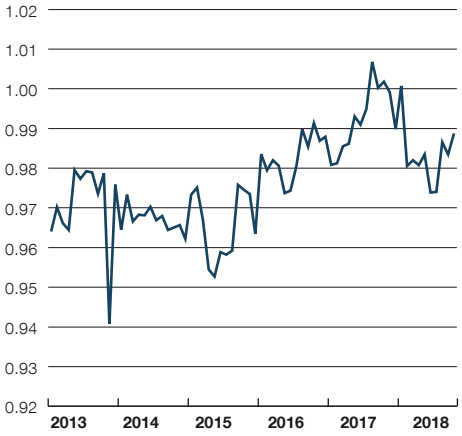
limited in the third quarter to a few sectors, and the main contributors at around 70% were wood and electricity. Exports of wood mean taking a large amount of raw material to the Nordic countries and exports of electricity depend on specific factors such as the weather in the region and price movements on the Nordic electricity exchange.

The market share of Estonian exports can be measured in two ways, either as the ratio of Estonian and European Union exports by volume at current prices, or Estonian exports as a ratio to foreign demand at constant prices (see Figure B6.1). Data for the first eight months of 2018 show that market share has continued to grow at current prices, but this includes the processing and re-export of fuels, which has a minimal impact on the Estonian economy. This means that the growth in exports outside the European Union came partly from re-exports of imported fuels to the rest of the world (see Figure B6.2). The market share of exports measured at constant prices has remained stable since accession to the euro area and started to decline from 2017. The current forecast expects the market share of Estonian exports to fall by a total of around 5% at constant prices in 2017 and 2018.

The dynamics of goods exports depend on prices as well as on foreign demand. In rough terms, foreign demand is more important in the short term, and price competitiveness matters in the long term alongside foreign demand. Commonly used competitiveness indicators are terms of trade and real exchange rates.

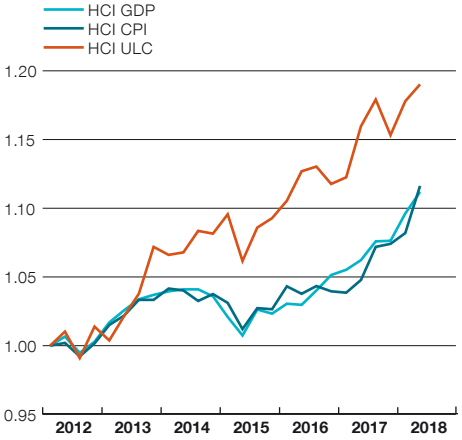
Terms of trade are defined as the ratio of export prices to import prices, and a ratio below one indicates that buying one unit of imports needs more than one unit to be exported. This means that when terms of trade deteriorate, fewer imports can be bought for the same volume of exports. Terms of trade improved in 2015-2017, but in 2018 they have deteriorated (see Figure B6.3). The real exchange rate has appreciated by 11-19% in the past five years depending on the indicator used, and this means that on average Estonian goods have become that much more expensive against competitors in export markets. Real exchange rates reflect changes in current exchange rates and the dynamics of prices and wages in the Estonian economy compared to those in foreign partners, and the main reason for their rise has been the rise in domestic prices and wages (see Figure B6.4). The biggest rise has come in the real exchange rate based on unit labour costs, which reflects the restrictive impact that rapid rises in wages over a long period have on price competitiveness.

Figure B6.3. Terms of trade



Source: Statistics Estonia

Figure B6.4. Real exchange rates



Source: European Central Bank

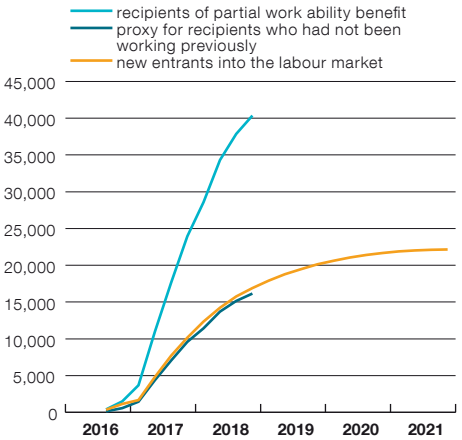
Overall it can be said the decline in growth in exports and in market share at constant prices started before the peak of the economic cycle and foreign demand was passed in 2017 and continues now even while the external environment remains relatively favourable. As real exchange rates have appreciated since 2015, price competitiveness will weaken further in future, as the full impact of the real exchange rate is only felt after about three years, with 60% of the impact coming in the third year, meaning the full impact of the rise in the real exchange rate has not yet hit the economy. The decline in price competitiveness is a notable risk to growth in exports throughout the forecast horizon.

Box 7. The impact of the Work Ability Reform on the labour market

The Work Ability Reform Act came into force in July 2016 and introduced the Work Ability Reform, which significantly affected the labour market. Under the new system people who are partly able to work are only eligible for benefits if they are working or looking for work[12]. In this way the reform raised the labour force participation rate and also the unemployment rate among those who were previously out of the labour market but are partially able to work.

At the end of the third quarter of 2018 there were a little under 40,000 people receiving benefits for partial incapacity to work (see Figure B7.1). Fewer people than this have been added to the labour market though, as many people who are partially able to work are already working when they enter the programme. In the first

Figure B7.1. The effect of the Work Ability Reform on the labour force

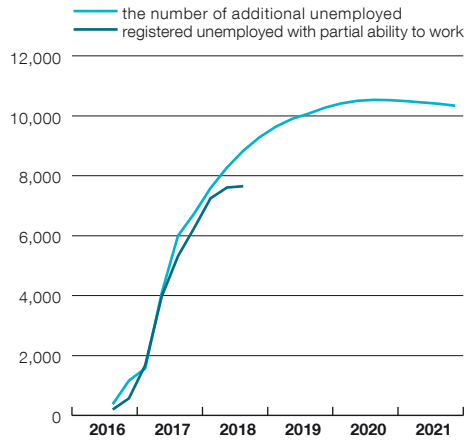


Sources: Töötukassa, Eesti Pank calculations

12 In certain circumstances it is not necessary to meet the activity requirement, example for people who are in formal education, raising a child under the age of three, or caring for a seriously disabled family member. See https://www.tootukassa.ee/content/toovoimereform/toovoimetoetuse-saamise-tingimused

10 months of 2018, 62% of those partially able to work were doing so at the time of their assessment and that share has risen a little since the reform was introduced in 2016.

Figure B7.2. Forecast of the effect of the reform on unemployment



Sources: Töötukassa, Eesti Pank calculations

The direct impact of the work ability reform on the activity rate is considered to be smaller than was earlier forecast. This forecast finds that the labour force participation rate was 1.6% higher by the third quarter of 2018 because of the reform. While as many people as forecast are undergoing the work ability assessment, more people than expected have stopped receiving work incapacity benefits each month. There are various reasons for this, as some people whose benefits have come to an end do not reapply for them, some people's health improves, and some reach retirement age, while others do not qualify for the benefits as they no longer meet the criterion of participation in the labour market. The indirect impact of the reform may be larger, if for example some people who are assessed as fully unable to work still start looking for a job, even though they do not have to participate in the labour force under the new system in order to receive their benefits. Equally, some people may find themselves a job before they are assessed for their ability to work as they expect to be required to be active in the labour market.

There are fewer unemployed among those who have entered the labour market than was earlier forecast. Data from Töötukassa show that the number of registered unemployed who are partially able to work was 8800 people in October 2018 (see Figure B7.2). This means that only around one in five of those receiving benefits for partial incapacity to work was unemployed. The impact of the Work Ability Reform on unemployment has turned out to be much more modest than earlier forecasts suggested. This is partly because more people have managed to find a job than was expected. According to the executive board of Töötukassa[13], on average 44% of those partially incapable of work find a job within a year. This means the probability of exiting unemployment to enter employment in a month is around 5%, which is more than earlier forecasts assumed. It could also be though that the probability of leaving the labour market is higher for those of the partially able to work who are unemployed.

The reform will raise the labour force participation rate and the unemployment rate further in 2019, and this will largely mark the end of the implementation period for the reform. The impact of the Work Ability Reform on labour force participation and on unemployment has been revised downwards from the earlier forecasts. However it is only the direct impact that is estimated, and beyond this there may be an indirect impact.

13 Pille Liimal, “Potentsiaalne tööjõud pole veel otsas”, Postimees, 29.10.2018, pp 16-17

PRICES

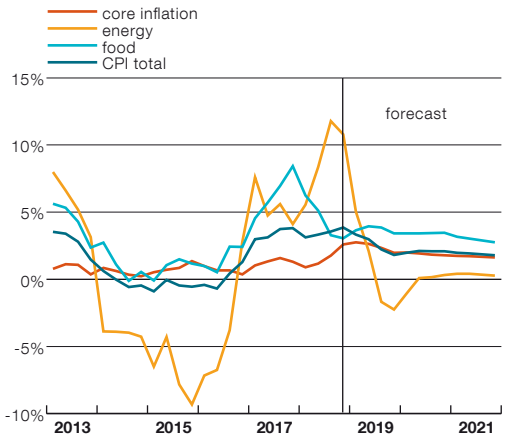
Inflation is forecast to slow down in 2019 because of external factors. It is likely to remain relatively fast in the first half of the year as the rise in energy prices this year will continue to be passed through into next year (see Figure 36). Inflation will continue to slow gradually in the second half of 2019 if there are no unexpected shifts in commodities prices on global markets. In the second half of the forecast period inflation is forecast to be close to 2%.

Rises in prices for imported energy will be restrained as the price of crude oil on global markets has recently fallen. Energy price inflation will continue to be held up by the price of electricity. Futures prices indicate that the electricity price level will remain high until the second quarter of next year. Food price inflation may increase throughout Europe in the winter months as the weather was unfavourable in the summer. Current data still indicate that the rise in price will be relatively gentle.

Prices in general could also rise more slowly during the forecast horizon because the impact of excises will fade. The contribution of indirect taxation will fall from 0.6 percentage point to 0.2 percentage point as the government has decided to abandon the planned rise in alcohol excise in 2019 and 2020 (see Figure 37). A future cut in excise cannot be ruled out. Excise on tobacco will continue to rise in the years ahead and the impact of higher excise on natural gas will start to be felt more and more strongly in consumer prices.

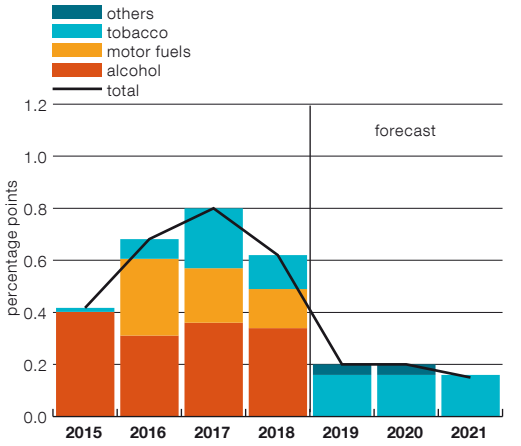
Labour shortages will continue to be the main domestic factor driving inflation in services prices. Unemployment has fallen below its equilibrium level and wage pressures will be channelled into output prices. Prices will rise faster for services than for goods, as wages account for a larger share of costs but foreign competition is not as strong as for manufactured goods. As goods prices have mostly converged to the average level of the European Union, they should do so with much greater restraint in future.

Figure 36. CPI growth



Sources: Statistics Estonia, Eesti Pank

Figure 37. Contribution of indirect taxes to inflation



Source: Eesti Pank

Rises in state regulated prices should remain restrained. Network fees for electricity will fall at the start of 2019, though this will have only a modest impact on the consumer price index. Prices will continue to rise for heating energy and natural gas in the first half of the forecast horizon, mainly because of higher input prices. Inflation may also be accelerated in the long-term perspective if the consumer price index starts to include real estate prices, which is discussed in Box 8.

Box 8. Including real estate prices in the consumer price index

The consumer price index is the main indicator that central banks base their monetary policy decisions on. As its name suggests, the consumer price index should reflect changes in the prices of consumer goods and services, though in practice the concept of consumer prices is interpreted differently in different countries. A topic that has come up in international discussions is whether and how the consumer price index should account for the price of owner-occupied residential property. It has been agreed in principle in Europe that real estate prices should be added to the harmonised index of consumer prices (HICP), but there have so far been technical difficulties in doing this.

European Union member states use the same principles for compiling the HICP. The consumer basket contains consumer goods and services whose value can be measured with money, and so the HICP contains rent of residential property and the costs of maintenance of residential property. However it does not currently take account of changes in the price of real estate even though rises and falls in real estate prices affect the purchasing power of money.

One argument for adding real estate prices to the HICP is that housing costs are a large part of household spending, as the purchase of housing is usually the largest financial expense of a person's life. Furthermore, the majority of Estonian families own their own apartment and the rental market is relatively small, while in larger Western European countries the share of households renting can be 40-50%.

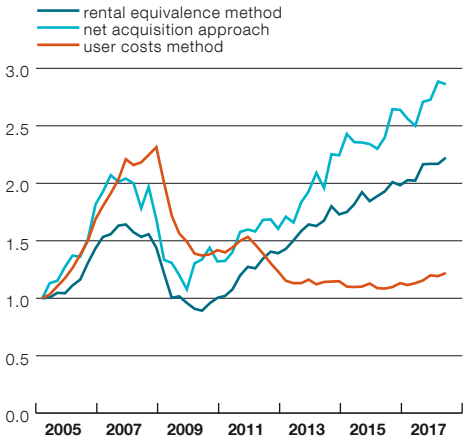
Against the inclusion of real estate prices in the HICP is the argument that housing purchases should be treated not as consumption spending but as an investment. Real estate is an asset class where investments are made, like shares. Adding real estate prices would make the consumer price index into more of a cost of living index and similar to the private consumption deflator, which contains estimates with relatively wide confidence bounds such as indirect rent. In principle the consumer price index could be expanded even further to include wider socio-economic factors such as water and air quality.

There are three main methods for calculating the price of owner-occupied housing in the HICP:

The first method is the rental equivalence method, which assumes that buying housing is an alternative to renting it. It can be assumed provisionally that the apartment owner spends an amount each month that is equal to the rental price of their apartment. The disadvantage with this method is that the cycles for rents and real estate prices are different, so direct conclusions cannot always be drawn about the total housing stock from rental prices.

The rise in rents in Estonia was slower than that in housing prices until the economic crisis of 2008 (see Figure B8.1). During the years of the crisis, housing prices and rents fell sharply. The yearly growth in housing prices and rents has

Figure B8.1. Real estate prices calculated using three methods, January 2005 = 1



Sources: Statistics Estonia, Eesti Pank

been more compatible since 2013, and so conclusions could be drawn from rents about the costs of owner-occupation as a whole.

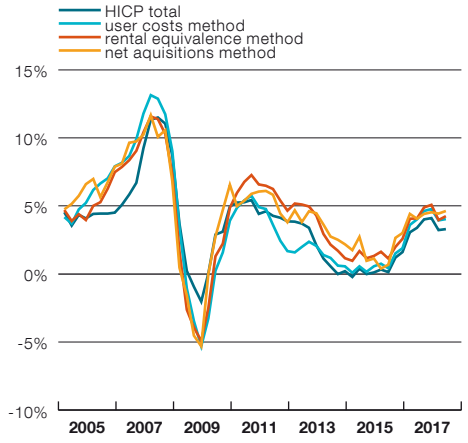
The second method is the user costs method, which accounts for the direct and indirect costs of using housing and subtracts potential revenues. Apartment owners pay back their housing loan and the interest on it, but depreciation is also a significant source of costs for them. This method can give the opposite results to what may be expected, as capital gains may be larger than cost increases at times when real estate prices are rising rapidly and this then has a negative impact on HICP inflation.

The interest costs on housing loans for Estonian households grew quickly during the economic boom, when the stock of housing loans was increasing by up to 70% a year. The growth in the loan stock has slowed this decade, but interest rates are also now lower.

The third method for including real estate prices in the HICP calculation is the net acquisition approach, which considers the purchasing prices of real estate. The calculation only considers new apartments, the fees for the purchase, and the cost of capital repairs. This method is considered to be the best match for the definition of the consumer price index as it reflects the actual monetary spending by households on housing. As real estate prices and the prices of repairs to housing in Estonia have been much more volatile than in many other countries, adding them to the consumer basket would impact the consumer price index significantly.

Adding real estate prices to the HICP would make inflation in Estonia higher (see Figure B8.2). Depending on the method chosen, average inflation in 2005-2018 would be raised by 0.2-0.7 percentage point[14]. The differences were the largest in the previous decade when real estate prices were very volatile, but in recent years too, real estate prices and rents have risen notably faster than the price of the consumer basket as a whole.

Figure B8.2. Impact of real estate prices on HICP, annual growth



Sources: Statistics Estonia, Eesti Pank

14 All three methods produce indirect calculations and assume that the share of owner-occupied housing in the consumer basket will be 10%.

GENERAL GOVERNMENT FINANCES

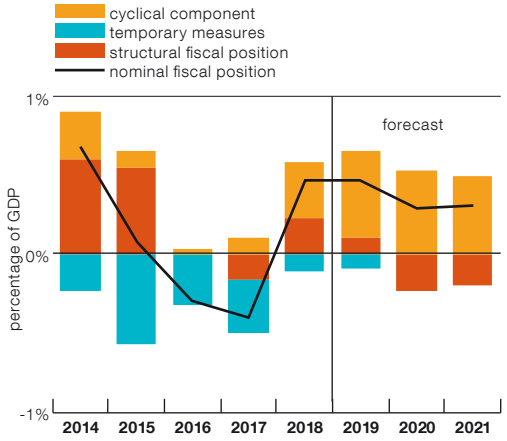
The nominal fiscal position of the general government will remain in moderate surplus throughout the forecast horizon. Although the cyclical position of the economy is weakening, tax receipts will be very good in future and the budget will remain in surplus mainly through the cyclical part of tax revenues. The budget will be in structural surplus in 2018-2019, and then a little way in deficit. In total the general government budget will remain close to structural balance (see Figure 38).

It must be remembered when assessing the fiscal policy stance that the structural position for 2019 may turn out to be weaker than this estimate. This is because the large inflow of transfers from the European Union budget will support spending growth without having a negative impact on the nominal position. The budget balance will be affected by European Union subsidies but only through the co-funding of projects by Estonia. In addition, experience in 2018 shows that tax income will be increased at the start of the forecast horizon by the transition to a lower income tax rate for companies paying out regular dividends, the pre-payment of income tax by banks, and the reform of personal income tax. A part of this increase will be temporary though.

General government spending will continue to grow rapidly at the start of the forecast horizon. Although it was decided in the state budget for 2019 that the growth in general government spending will be slower than it was in 2018, it will still be close to the average for the years since the economic crisis at 7%. The growth in spending will again be supported by large transfers from the European Union budget, and the lagged impact of fast wage growth on indexing of social benefits and wages will rise in some areas. Later on, foreign support will have less of an impact and the growth in total general government spending will slow. The rate of growth in general government spending in 2021 will largely depend on how smooth the transition is to the new European Union budget period.

The expenditure forecast for the state for 2020-2021 is based on some quite uncertain assumptions. One of the first tasks for the new government formed after the Riigikogu elections of March 2019 will be to put together a budget strategy for the next four years, and so spending priorities could change substantially.

Figure 38. General government fiscal position



Sources: Statistics Estonia, Eesti Pank

The tax burden remains relatively stable. The structure of GDP is more tax-rich than its long-term average, and the combined impact of several years of rising excises and the reform of corporate and personal income tax led to a sharp rise in tax revenues in 2018. Preliminary estimates find the ratio of tax revenue to GDP increased to 34%. Part of this increase was temporary in nature and the tax intensity of GDP will be a little lower in future. At the same time the average tax rate for individuals will start to rise again slightly as the tax-free income threshold is not indexed and wages are forecast to rise fast. In total the tax burden in Estonia will fall by the end of the forecast horizon to close to its level of 2017 and will remain below the average for the euro area. The dynamics of the tax burden will of course depend on the decisions of the new government.

Estonian public finances remain in good shape next to the average for the euro area. The debt is very small and is practically covered by reserves. Some weakening of the general government fiscal position in the years ahead will have little impact on the long-term sustainability of Estonian public finances. It is important to bear

in mind that the private sector does not need any support from the government at this stage of the economic cycle. Rapid growth at the same time in general government spending may lead not to better infrastructure and a stronger public sector but to unwanted higher prices for certain goods and services. The ability of the government to smooth the economic cycle should be held back for when the economy is clearly running at below its potential level.