

Eesti Pank

ESTONIAN ECONOMY AND MONETARY POLICY

3/2016

The Estonian Economy and Monetary Policy is an Eesti Pank review released four times a year that summarises the main recent events in the global and Estonian economies. Twice a year, in June and December, the review also contains the forecast for the Estonian economy for the current year and the next two calendar years.

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SUMMARY

The economy of the European Union and that of the euro area have been moving in the direction of more certain growth in recent years, though growth in the second quarter was again slower than in previous quarters and uncertainty about the future was increased by the referendum in the United Kingdom in June, in which the voters chose to leave the European Union. Although it is not yet clear what form cooperation between the United Kingdom and the European Union will take in future, the referendum result led to a sudden surge in volatility in stock markets and was also reflected in a drop in the value of the pound sterling. At the start of September the European Central Bank lowered its outlook for growth in the United Kingdom in response to the referendum result, and did the same for the growth forecast for the euro area, mainly because of weak external demand.

Revised data put growth in the Estonian economy at 0.8% in the second quarter, leaving it below its long-term potential. Growth was broadly based though, as value added grew in most sectors and the main obstacle to achieving potential growth was the decline in value added in energy, mining and real estate activities. All three are capital-intensive industries where labour costs are a very small part of total costs, meaning the connection to the labour market is weak. The better progress in the other, more labour-intensive, sectors explains at least partially why the number of people in employment and the average wage have increased even as overall figures for economic growth have been low. The increase in unfilled positions in the second quarter also shows that the upward pressure on domestic wages caused by labour shortages has probably not yet faded.

Although the unit labour cost based real effective exchange rate of the euro has appreciated for Estonia, exporting companies consider their competitiveness in the European Union market and further afield to be stronger than in the beginning of the year. This is in line with a revitalisation of Estonian trade in the second quarter, as around 4% more goods and

services were exported than a year earlier. Imports grew by even more at the same time, but the current account remained in surplus even so. The second quarter also saw an increase in fixed capital formation, which was earlier indicated by data for imports of capital goods and VAT declarations. Alongside increased household investment in housing, corporate investment also grew, which is a necessary condition for the economy to grow faster. Increased corporate investment makes it more likely that the persistent gap of recent years between economic growth and wage growth will be closed through increased labour productivity rather than through a sharp braking of wage growth.

Having fallen for more than two years, prices rose in August and took consumer price inflation back into positive territory. However, the price level has been rising steadily on a monthly basis since the start of the year, and in a little over half a year consumer prices have climbed by around 2%. Price pressures have remained weak despite rapidly rising wage costs and increasing demand. This is partly because profit margins have been slimmed, and partly because the oil price has been low and prices have risen only slowly for imported commodities. The consequence of the fall in prices in the meantime was that consumer prices were at a similar level in August this year to where they were at the start of 2013. During this time the average gross wage increased by 20% however, meaning that the average purchasing power of residents increased by about one fifth in three years, which has resulted in fast growth in retail sales and in private consumption.

Strong growth in wage income and consumption has boosted tax revenues. Tax revenues have also been raised by higher excise rates for alcohol, tobacco and fuels. In the first half of the year, general government income exceeded expenditure and for the year as a whole the budget should remain in surplus. Growth in general government spending has been seriously limited by a reduction in investment, but the cut in the numbers employed by government institutions in an effort to keep the size of the public sector the same relative to a shrinking population has also had an impact.

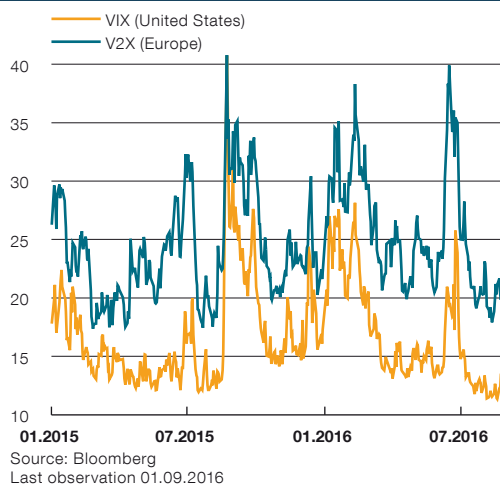
THE EXTERNAL ENVIRONMENT

THE GLOBAL ECONOMY

The second quarter of 2016 saw increasing uncertainty in the development of the global economy as several negative risks realised.

One of these was the outcome of the Brexit referendum in the United Kingdom in June, which saw the country vote to leave the European Union. This came as something of a surprise to financial markets, leading to increased volatility in stock markets (see Figure 1). The price of oil also started to fall again in July, having risen in the first quarter. Increased uncertainty will affect investment activity and consumption going forward. The IMF¹ has reduced its outlook for global growth in the World Economic Outlook (WEO) by 0.1 percentage point from April to 3.1% for 2016 (see Table 1). Global economic growth is affected negatively above all by the worse outlook for growth in advanced economies. Geopolitical tensions continue to pose risks to global growth too.

Figure 1. Stock market volatility indexes in the USA and Europe



several member states and by fiscal policy challenges. Unsurprisingly the outlook for growth has been lowered the most for the United Kingdom.

Table 1. GDP growth in different regions in 2005 - 2016 (change, %)*

	2010	2011	2012	2013	2014	2015	2016 Q1	2016 Q2	2016
World	5.4	4.2	3.4	3.3	3.4	3.1			3.1
Advanced economies	3.1	1.7	1.2	1.1	1.8	1.9			1.8
Emerging markets and developing economies	7.5	6.3	5.2	5.0	4.6	4.0			4.1
Euro area	2.1	1.5	-0.9	-0.3	1.1	2.0	1.7 (0.5)	1.6 (0.3)	1.6
United States	2.5	1.6	2.2	1.5	2.4	2.4	1.6 (0.2)	1.2 (0.3)	2.2
China	10.6	9.5	7.8	7.7	7.3	6.9	6.7 (1.2)	6.7 (1.8)	6.6
Japan	4.7	-0.5	1.7	1.4	0.0	0.5	0.1 (0.5)	0.8 (0.2)	0.3
United Kingdom	1.5	2.0	1.2	2.2	2.9	2.2	2.0 (0.4)	2.2 (0.6)	1.7

* GDP at constant prices; quarterly growth over the last quarter of the same year is shown in brackets, 2016 is WEO forecast
Sources: World Economic Outlook Update, July 2016, Eurostat, National Statistics

The rate of growth in advanced economies remained slower than markets expected in the second quarter, mainly because of weak external demand.

Growth was again based mainly on domestic demand. Economic activity in the USA was a little weaker than expected, leading the IMF to adjust growth for 2016 for the USA slightly downwards in its WEO. Growth in the euro area meanwhile has been reassessed upwards because of stronger domestic demand and increased investment, though there is quite a lot of uncertainty about the future because of the impact of Brexit. Growth in the euro area is also threatened by problems in the banking sectors of

As inflation remains low in advanced economies and the risks to growth have increased, central banks in the United Kingdom and Japan have increased their monetary policy stimulus further or cut interest rates.

Growth in the US economy stood at a quarterly 0.3% in the second quarter, which was just ahead of the 0.2% posted in the first quarter. The strongest driver was private consumption, with net exports also contributing. Industrial production increased with support mainly from manufacturing and mining. At the same time, the purchasing managers index²

¹ World Economic Outlook Update, IMF, July 2016.

² The Markit US Manufacturing PMI.

was down slightly in August as new orders were reduced and recruitment plans scaled back. The consumer confidence indicator³ also weakened slightly in August. Exports have increased a little in recent months, but this is restricted by weak external demand, especially from Asia and Canada. The labour market remains strong in the USA, with unemployment low at 4.9% and wage growth picking up a little in the summer. However, inflation has not received enough support from the labour market, because yearly growth in consumer prices slowed in July to 0.8%, primarily because of falls in energy and food prices and housing costs. The strong labour market is the main reason why the probability has increased of the US Federal Reserve raising its monetary policy interest rates further this year.

Growth slowed in the Japanese economy in the second quarter to a quarterly 0.2%, having been 0.5% in the first quarter. This was mainly because of the negative impact from exports. The exporting sector, especially the production of cars and electronics, has been hurt by the strong yen and the scandal around car emissions. Growth was lifted by domestic demand and investment in housing. A business survey in August⁴ showed that confidence had fallen in manufacturing to a record low level though, reaching a point last seen in April 2013. Deflation continued for a fifth month as falling transport and housing costs pulled core inflation down to -0.4% in July. Unemployment was already low in Japan and it fell further to 3% in July and the rate of wage growth picked up a little. The Japanese government published a new support programme for the economy worth 28 trillion yen in August to supplement the decision taken by the Japanese central bank in July to enhance its asset purchase programme⁵.

Growth accelerated in the second quarter in the United Kingdom to a quarterly 0.6% from 0.4% in the first quarter. Household spending increased faster than expected and rapid growth continued in retail sales in July. Investment growth also had a positive impact on the economy, with

3 Surveys of Consumers, University of Michigan.

4 The Reuters Tankan.

5 Purchase volumes were increased for both the stock index (ETF) and the US dollar lending programme.

investment in the construction sector accounting for a large part of it, but trade had a negative impact on economic growth. Household confidence⁶ did fall after the Brexit vote, but recovered a little in August and currently remains above its historical average. However, households often react to changes in the economy with a lag, so it may take some time before households start to limit their spending. The July survey of economic agents by the Bank of England found that uncertainty had indeed increased for companies, and recruitment and investment plans have been scaled back somewhat. The labour market in the United Kingdom remains strong, with unemployment low at 4.9% and employment high by historical standards at 74.5%. Inflation picked up a little in July as consumer prices were up 0.6% over the year because of higher prices for transport and for hotel and restaurant services. The Bank of England cut its monetary policy interest rates at the start of August from 0.5% to 0.25%, and increased its asset purchase programme so as to give support to the economy.

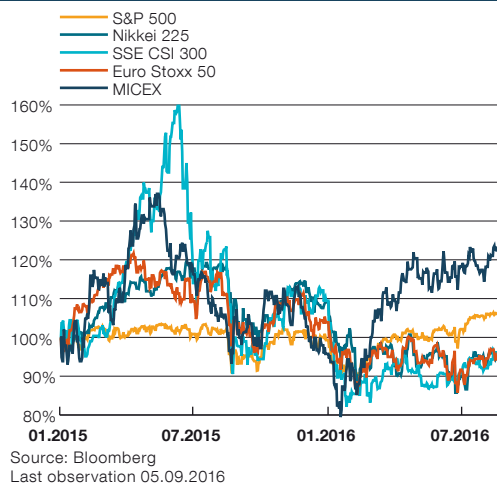
Growth in emerging economies so far in 2016 has been in line with expectations, or in some countries such as China, Russia and Brazil even ahead of expectations, mainly because of government stimulus. The Chinese economy grew by a quarterly 1.8% in the second quarter, which was more than markets expected and significantly more than the 1.2% recorded in the first quarter. Growth in China has remained slower than in earlier years, largely because of structural changes in the economy. Slower growth in China affects global industrial output volumes negatively too. Chinese growth has picked up in recent months though, primarily on the back of major infrastructure investments, but it is debatable how sustainable the Chinese policy of supporting financial leverage in the real estate sector is. A higher oil price has supported economic activity in Russia and other oil exporting countries this year, but the risks from political tensions remain significant in those regions.

Global stock indexes fell quite steeply in June after the referendum in the United Kingdom, but they recovered rapidly afterwards. Interest rates on the sovereign bonds of advanced

6 GfK Consumer Confidence Index.

economies fell to record lows however, while several leading stock indexes, such as the Dow Jones and the S&P 500, climbed to record highs (see Figure 2). Optimism passed on into the stock markets of Europe and Asia, mainly in response to hints from central banks of further stimulus to come, though shares were also helped by better corporate results for the second quarter than expected, especially in the USA. The European banking sector suffered a blow after the Brexit vote, especially in Italy and in member states where the latest stress tests had revealed problems at banks. Interest rates on sovereign bonds mostly fell in July and August, but the change was generally more modest than that in June. Interest rates remained negative for several countries however, including for the ten-year German Bund, and rates on bonds for peripheral countries have also fallen quite notably.

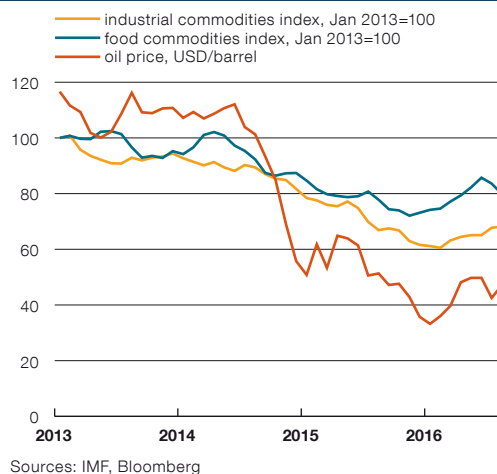
Figure 2. World stock indexes (03.01.2015 = 100%)



The main development in commodities markets in the second quarter was the drop in the oil price. It remains higher than it was at the end of last year though.

The oil price fell partly in response to the uncertainty in the markets that followed the Brexit vote, but it also came under pressure from increases in reserves in the US oil sector and from reduced demand from China. Oil production by OPEC hit an eight-year high at the same time. Among precious metals, gold and silver saw prices continue to rise in the summer months. Risk aversion among investors led them to invest more in silver, with the result that the price of silver rose by 17% in a month from June to July. Prices of industrial metals have also mainly been rising, but prices for agricultural produce, primarily cereals, have been pushed down by overproduction (see Figure 3).

Figure 3. Commodity price indexes, USD



THE EURO AREA

The euro area economy grew in the second quarter by 0.3% and by 1.6% over the year. Growth was slower than in the first quarter, when it had exceeded expectations at 0.5%. Euro area growth continued to be underpinned in the first half of the year by domestic demand, and the contribution of net exports to yearly growth remained negative. However, quarterly growth was given a positive boost by net exports in the second quarter, which helped to prevent growth slowing more sharply from the previous quarter. Export growth in the second

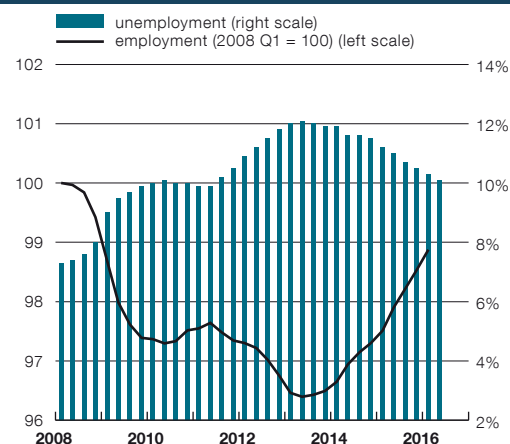
quarter was supported by improved competitiveness in the euro area among other things due to the earlier depreciation of the euro. The latest activity indexes suggest that moderate economic growth continued in the third quarter. The increase in uncertainty occasioned by the decision of the United Kingdom to leave the European Union has not had a significant negative impact on sentiment indexes in the euro area. The Markit purchasing managers index (PMI) was a little lower in August than in July at 52.9 points, but it remained above 50, indicating continued growth. The opinions given for the index did reflect some increase in pessimism about the future (see Box 1 on European politics). Activity indexes for the first two months of the third quarter imply that growth will continue in the euro area at a similar rate to that of the second quarter.

Labour markets in the euro area continued to improve. The unemployment rate fell in May to 10.1%, and remained at the same level in June and July. The share in unemployment of the long-term unemployed, who have been out of work for over 12 months, remained above 49% in the first quarter, but has still fallen over the past year. There is still a lot of variation between labour markets across the countries of the euro area, as the lowest unemployment rates are close to 4% in countries like Germany and Malta, while the highest rates reach or even pass 20% in countries like Greece and Spain. Employment increased by 0.3% in the first quarter, and yearly growth was 1.4%. Yearly growth in employment was positive in all the countries of the euro area. The number of people in employment in the first quarter stayed at 1.1% below the level seen before the economic crisis (see Figure 4). With unemployment rates high and inflation low, wage growth has continued to be slow, and it slowed further in the first quarter, from a yearly 1.3% in the previous quarter to 1.2%. Business surveys indicate that wage growth is not expected to accelerate significantly in the near future.

Increasing employment and low energy prices boosted purchasing power and so private consumption, which was again the main factor driving economic growth in the first quarter. Private consumption in the first quarter was 0.6% above consumption in the previous quarter. Consumption growth was a little below expectations in the second quarter though, as it slid to 0.2%. Retail sales were on average up 1.5% over the year in the second quarter. Growth in retail sales has slowed from what it was in the second half of last year, but still remains stronger than in recent years. The consumer sentiment survey of the European Commission showed some decline in consumer confidence in the second half of summer, but the confidence index remained above its long-term average even so. The purchasing managers index calculated from the sales indicators of the three largest countries in the euro area climbed in August to its highest level of the past ten months. This rise was driven by increased activity in the retail sector in France and Germany.

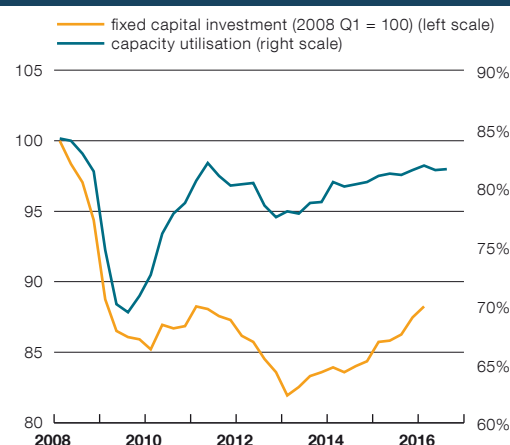
The contribution of investment to economic growth remained positive in the first half of this year, but growth in investment slowed in the second quarter. Investment was encouraged

Figure 4. Employment and unemployment in the euro area



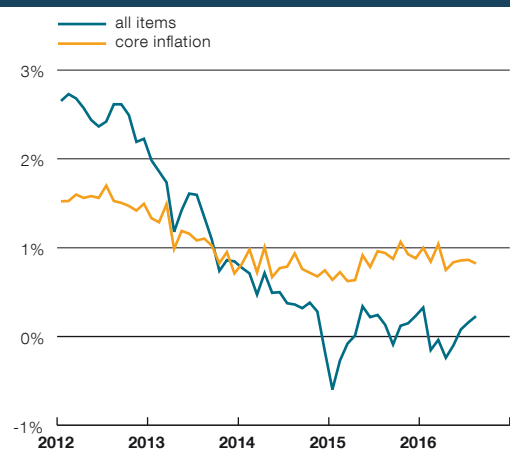
Source: Eurostat

Figure 5. Investment in the euro area



Sources: Eurostat, European Commission

Figure 6. Euro area inflation



Source: Eurostat

by low interest rates and the production capacity utilisation rate, which stood above its historical average because demand grew while investment activity has been modest since the crisis. Fixed capital formation increased by 0.4% over the first quarter, and by a yearly 2.5%. Increased uncertainty in the second quarter about the future for the European Union and the poorer outlook for the external environment put a brake on investment growth, and yearly growth dropped to 2.4%. Investment in the second quarter was some 12% below where it was in the first quarter of 2008, before the crisis hit (see Figure 5).

Inflation remained close to zero in the euro area in the first half of the year. Consumer price inflation was 0.2% in both July and August (see Figure 6). Inflation continued to be pulled down

mainly by falling energy prices, while food price inflation was a little above where it started the year. With the more volatile components of inflation, the prices of energy and food, excluded, core inflation has been at 0.8% and 0.9% in recent months. The price expectations for the next 12 months revealed by the consumer sentiment surveys were down a little in the second half of summer, though the share of consumers expecting prices to rise was larger than at the start of the year even so. The long-term inflation expectations in surveys of professional forecasters remain stable at 1.8%. In contrast, financial derivatives that reflect inflation are clearly down on the start of the year, and the five-year inflation expectations for the next five years revealed by inflation swaps were at all-time record lows in July (see Box 2 for more on the euro area monetary policy environment).

BOX 1: THE UNCERTAINTY STEMMING FROM POLITICAL RISKS WILL AFFECT THE EUROPEAN UNION IN THE NEAR FUTURE

The decision of the United Kingdom to leave the European Union shook Europe and created a lot of uncertainty. The initial bitterness in Brussels and other European Union capitals was replaced by a sense of acceptance over the summer. The new British prime minister Theresa May has confirmed that the decision to exit the European Union is irreversible, but the exit negotiations will not start in 2016. There is a great deal of uncertainty in the European Union following the decision, partly because it is not known exactly how the exiting process will unfold and what form of cooperation and partnership there may be in the future, and partly because the departure of the United Kingdom will seriously affect the European Union itself, as Eurosceptic opinion in Europe has highlighted several significant political risks.

Eurosceptic parties are also calling for referendums to be held in other European Union member states. Marine Le Pen, leader of the anti-immigrant Front National in France and candidate for the national presidency next spring, has moved to broaden her appeal by promising a similar referendum on European Union membership to that in the United Kingdom. The right-wing Freedom Party in the Netherlands and the Northern League in Italy have also promised to hold referendums if they win parliamentary elections. However, it is still unlikely that further referendums on European Union membership will be held as organising them is a complicated political and legal process that requires parliamentary approval, wide popular support, and, in most countries, a change to the constitution. Although there are more and more Eurosceptic people, the majority of citizens still remain pro-European, as the largest share have a neutral or positive image of the European Union and as many as eight out of ten Europeans favour the free movement of labour within the European Union⁷. Even as Euroscepticism has increased, support for the euro has remained relatively stable in euro area member states⁸. Despite this, the questioning

7 The Eurobarometer sentiment survey of July 2016 showed 72% of European Union citizens had a neutral or positive image of the Union, half of those surveyed have a positive view of the European Union's future, and eight Europeans out of ten support the free movement of labour inside the European Union. Popular support for the euro has also been relatively stable, remaining between 53% and 82% in euro area member states.

8 The Eurobarometer put support for the single currency at 72% among citizens of countries in the euro area in July 2016.

of European Union membership has increased public uncertainty. Political uncertainty also restricts the outlook for economic growth, as confidence is needed for investments to be made.

Increased support for extremist parties may lead to fragmentation within parliaments and to political stalemate. Elections in countries in Southern Europe have been particularly notable as populist parties with radical left or right-wing views have crossed the parliamentary threshold. This has made it harder to create governing coalitions. Parties in Spain for example have not managed to form a government following general elections in December 2015 and June 2016. This has meant a lost year for efforts to improve the living standards of Spanish citizens, because the provisional government does not have a mandate to change the budget or take any decisions on reforms.

Reforming economies is difficult for the traditional centrist parties of Europe. Weak economic growth and fiscal choices in the preceding decades mean there is no way to boost the welfare of citizens rapidly. Growth is held down in Europe above all by structural problems like restrictions on labour markets and the business environment that need structural reforms if they are to be fixed. It is hard to gain public support for key reforms though, and restructuring may lead people to turn on the government behind it. An example of this is the referendum that will be held this October in Italy on the constitution⁹, but which is likely to be used by many people as a way of declaring their lack of confidence in a government that has become unpopular because of the migration and banking crises. The Italian prime minister Matteo Renzi, who had higher popular support a year ago, has promised to resign if the reform is rejected. If the reform is rejected in the referendum, the consequent weak economic development may lead to increased political instability in the country. Early elections would favour parties that have been gaining in popularity, notably the populist Five Star Movement and the Eurosceptic and anti-immigrant Northern League. The political views of these parties could put Italy's finances into serious difficulties, and its relations with the European Union could deteriorate.

The heads of state and government of the European Union are searching for solutions to reduce these political risks. In response to the terrorist attacks that have shaken Europe, weak post-crisis economies and continuing high unemployment in some member states, there is a desire to make the European Union more secure, to limit illegal immigration, and to improve its economic position. These are the areas where European Union citizens want to see the most progress. A survey carried out in member states¹⁰ reports that the biggest problems facing the European Union are seen to be immigration and terrorism, but a vast majority of those surveyed consider that European Union efforts so far in these areas have been insufficient. Nevertheless, political factors do not favour rapid agreement and instant solutions at the moment, as presidential elections are coming up in France next year, and federal elections in Germany.

⁹ The reform would significantly increase the legislative power of the lower chamber in order to speed up law-making.

¹⁰ Europeans in 2016: Perceptions and expectations, fight against terrorism and radicalisation (June 2016).

BOX 2: THE MONETARY POLICY ENVIRONMENT OF THE EURO AREA

The objective of the Eurosystem monetary policy is to maintain price stability in the euro area. Price stability is defined by the Governing Council of the European Central Bank as inflation in the euro area of below, but close to, 2% over the medium term. The September forecast by experts from the European Central Bank finds that inflation will remain low in the euro area for

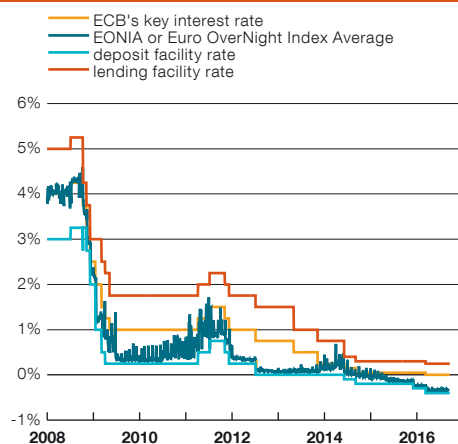
some time yet, but will rise to 1.6% in 2018¹¹. Higher inflation is supported by monetary policy measures and by an expected recovery in economic activity.

The Governing Council of the European Central Bank held monetary policy interest rates at their lowest levels under the economic and monetary union in the third quarter of 2016, 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 package of monetary policy measures from the Eurosystem is large and varied. It is intended to help in meeting the goal of price stability at a time of low interest rates and in supporting the functioning of the monetary policy transmission channels, by easing financing conditions and revitalising the supply of credit. The volume of monthly purchases under the expanded asset purchase programme¹² is 80 billion euros. It is planned that the purchases will be made until March 2017, but if necessary they will continue until a lasting correction in inflation is apparent that is in line with the inflation goal of the European Central Bank. The expected effect of the non-standard measures on the economy of the euro area and on inflation will be seen in the medium term because monetary policy passes through into the economy with a lag. The Governing Council of the European Central Bank has emphasised its readiness to introduce additional measures if necessary to maintain a supportive monetary policy stance and to cope with the risks to the sustainability of economic growth and inflation.

The total effect of the asset purchase programmes and the targeted longer-term refinancing operations¹³ was that the consolidated balance sheet of the Eurosystem at the start of September stood at 3 trillion euros, which is 40% more than in autumn 2014. The portfolio of covered bonds first bought in autumn 2014 stood at 193 billion euros on 16 September 2016, and the portfolio of asset-backed securities purchases stood at 20 billion euros. The portfolio bought under the public sector asset-purchase programme (PSPP), started in March 2015, stood at 1 trillion euros on 16 September, of which at the end of August 2.6 billion euros was purchases by Eesti Pank, including 63 million euros of bonds of AS Elering¹⁴. The Eurosystem has bought 26 billion euros of corporate bonds since June this year (see Figure B2.2). The first stage of the longer-term targeted lending saw the Eurosystem supply the credit institutions of the euro area with total loans of 432 billion euros. The first operation under the new TLTRO II, with even more favourable

Figure B2.1. Eurosystem key interest rates and EONIA



Source: European Central Bank
Last observation 18.09.2016

¹¹ [European Central Bank press conference, 8 September 2016.](#)

¹² The expanded asset purchase programme (APP) has four parts: covered bonds (CBPP3), asset backed securities (ABSPP), public sector securities (PSPP), and the corporate bond (CSPP) portfolio.

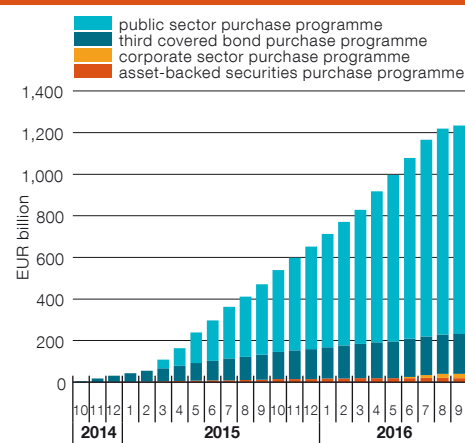
¹³ Targeted longer-term refinancing operation (TLTRO) loans to credit institutions are intended for onward lending to the real sector, though not for housing loans. In the first phase, from September 2014 to June 2016, the Eurosystem made loans once a quarter at the applicable ECB base interest rate. The second round of lending operations from June 2016 until March 2017 sees four-year loans issued once a quarter. If the lending portfolio of a bank to the private sector increases between February 2016 and January 2018, the loans granted under TLTRO II will have a discount interest rate that in the best case will be the deposit facility rate of ECB at the moment of the transaction. For more see pp 24-28 of the ECB bulletin 3/2016.

¹⁴ Since June 2016, AS Elering has been qualified for the purchase of corporate bonds, meaning that Eesti Pank no longer buys those bonds, but the Finnish central bank does so instead under the principle of shared market areas. Eesti Pank continues to buy its portfolio of public sector bonds only from pan-European institutions and agencies.

lending conditions, took place on 22 June, when loans of 399 billion euros were issued. Several borrowers used the money from that to pay back their loans under TLTRO I. Not all financial institutions considered the extremely favourable lending conditions as necessary, as they had sufficient alternative sources of funding.

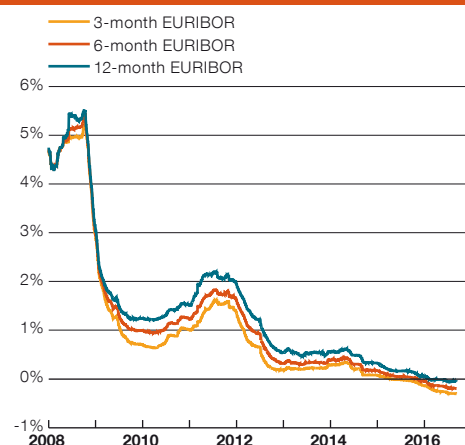
Yearly growth of the money supply in the euro area remained stable in the second quarter of 2016 and was supported primarily by the comprehensive package of accommodative measures taken by the Eurosystem. The average yearly growth in the broad money aggregate (M3) was 4.8% and yearly growth in the narrower aggregate (M1) was 9.2%. In July these figures were 4.8% and 8.4%. The yearly growth in the stock of household deposits was half a percentage point faster than in the first quarter, and growth in corporate deposits was one percentage point faster. With interest rates in general low, the rate on the term deposits of the private sector was also low at around 0.4%. Yearly growth in the stock of loans to the private sector has accelerated since the second half of 2015, with growth in the stock of housing loans holding at 2% in the past nine months, while the stock of loans to companies has started to increase gradually for the first time since early 2012, with growth reaching 1.9% in July. Interest rates on loans are also staying at historically record lows, and interest rates for corporate loans have particularly fallen in recent quarters. The spreads between interest rates for euro area countries facing problems and other member states have narrowed significantly in the past year. Such changes indicate that monetary policy measures have had a positive effect on private sector lending channels. The latest Bank Lending Survey for the euro area shows that the lending conditions to the private sector have loosened further¹⁵ and demand for credit is growing. Although the situation varies between countries, euro area credit institutions generally expect that these trends will continue in the coming quarters. They find that the credit market for companies in particular will improve further. This has been facilitated by the reduction in the costs of funding for banks due to the monetary policy measures that have been taken. Banks equally report that the credit supply has been encouraged by stronger competition and lower risk assessments.

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



Source: European Central Bank
Last observation 16.09.2016

Figure B2.3. Euro area money market interest rates



Source: Bloomberg
Last observation 18.09.2016

¹⁵ See <http://www.ecb.europa.eu/stats/money/surveys/lend/html/index.en.html>. 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.

The accommodative monetary policy in the euro area has helped short-term money market interest rates to fall to their lowest ever levels, and they are now negative. The expectations for short-term interest rates that are revealed by financial instruments remain low, and this also affects long-term interest rates. EONIA¹⁶ was quite stable in the third quarter at between -0.31% and -0.35%, holding just above the interest rate on the standing deposit facility. In the middle of September the three-month EURIBOR¹⁷ was at -0.30%, the six-month EURIBOR was at -0.20%, and the 12-month EURIBOR was at -0.05%, and all of them were down four basis points from the end of May (see Figure B2.3). The money market yield curve as shown by the gap in the 1 and 12-month EURIBORs was the same as in May at 30 basis points.

16 Euro OverNight Index Average for overnight lending between banks in the euro area.

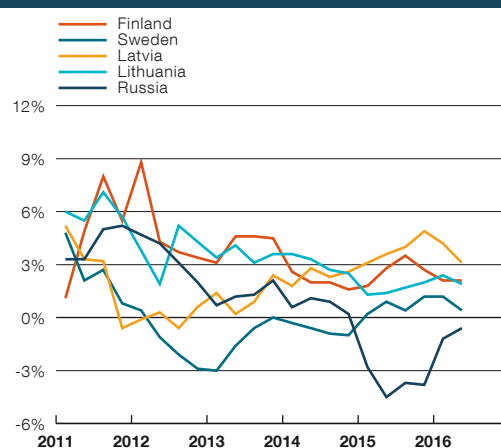
17 The Euro Interbank Offered Rate for lending between banks across Europe.

ESTONIA'S MAIN TRADING PARTNERS

There have been no major changes in the economic development in Estonia's main trading partners in recent months. Growth in the main trading partners is largely based on household consumption, which is supported by employment growth and low price levels. External trading activity mainly improved in those countries in the second quarter of this year, as it did in Estonia, though low prices for exports kept goods exports in decline. There was also strong growth in investment in Sweden and Finland in the second quarter. The good rate of growth was maintained in the second quarter in the Swedish economy, and growth in the Finnish economy also remained positive. The other Baltic economies were stable in the first half of the year, and the decline in the Russian economy slowed. Economic activity still remains relatively weak in Russia and that has a direct effect on Estonia and on the current position and outlook for the foreign trade and industrial output of our main trading partners.

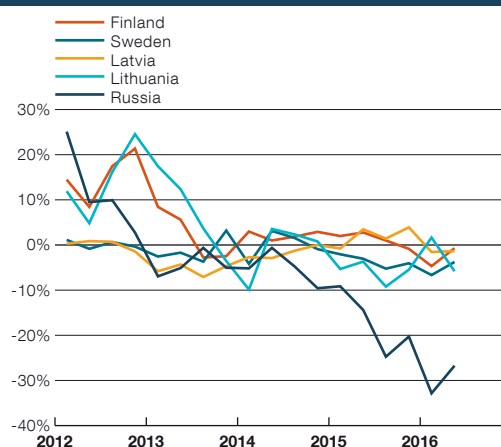
Yearly growth in the Latvian economy was the same in the second quarter as in the first at 2.1% (see Figure 7). Seasonally adjusted GDP grew quite noticeably faster in the second quarter at a quarterly 0.6%. The main driver of economic growth was consumption rooted in growth in the purchasing power of households. The decline in goods exports that had started in the fourth quarter of 2015 slowed to a minimal level in the second quarter (see Figure 8), but the slide in goods exports in July was steeper again. However, manufacturing grew in the first seven months of the year, with the production of wood,

Figure 7. Yearly growth rate of GDP in trading partners



Source: Eurostat

Figure 8. Yearly export growth of trading partners in euros



Source: Reuters

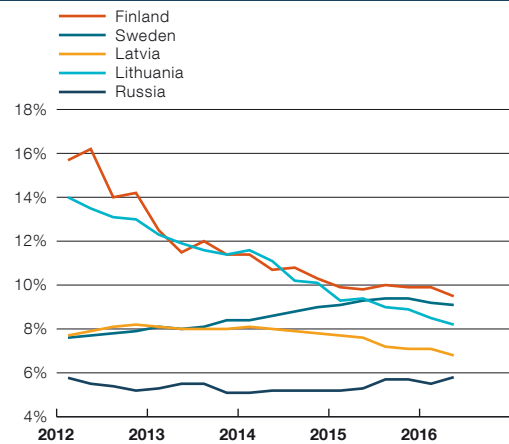
metal and electronics making the main contributions. Output volumes in the construction sector in the first half of the year were some 20% lower than a year earlier, and investment was down

again in the second quarter, partly because financial assistance from the European Union funds was little used. Although employment fell a long way in the construction sector in the first half of the year, overall employment improved as employment was up in other sectors, and unemployment continued to decrease in the second quarter (see Figure 9). Latvia managed to exit from six months of deflation in July, but consumer prices in August were at the same level as a year earlier (see Figure 10). Although prices of goods are falling, prices of services continue to rise in response to domestic demand and rising administrative prices.

Growth in the Lithuanian economy slowed to 1.9% in the second quarter. Seasonally adjusted GDP growth was also significantly slower in the second quarter than in the first. Growth is mainly based on rising household incomes and private consumption, while the sharp contraction in oil refining reduced the output volume of manufacturing and the value of goods exports over the year in the second quarter. Exports of goods and services also saw a quarterly reduction in the second quarter, and the construction sector remained in decline for a fifth consecutive quarter. There was also a decline in the value of goods exports in July in both yearly and monthly comparison. Improvements continued in the labour market in the second quarter, as unemployment fell further and the employment rate climbed to a record high of 69.5%. Although prices for services have risen steadily, price pressures have been weak in Lithuania because of low commodities prices. Inflation was 0.8% in Lithuania in August, and the consumer basket was cheaper in monthly terms.

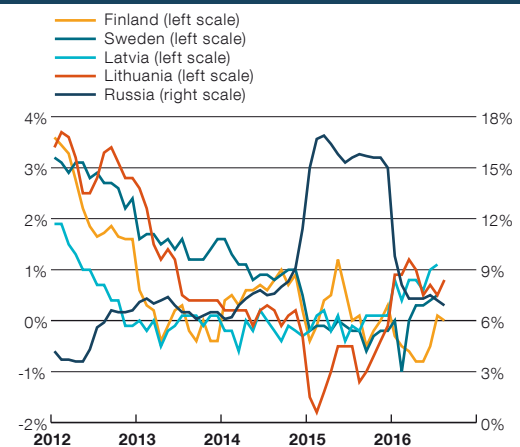
The Finnish economy continued its gradual recovery. The first estimate reports that the economy grew by 0.4% over the year in the second quarter. In quarterly terms however, seasonally adjusted GDP was at the same level in the second quarter as in the first. Growth was based mainly on domestic demand as investment and household consumption showed both yearly and quarterly growth in the second quarter. The relatively strong domestic demand helped growth in imports exceed that in exports, with the result that net exports made a negative

Figure 9. Unemployment rate in trading partners



Sources: Eurostat, OECD

Figure 10. CPI inflation in trading partners



Source: Eurostat

contribution to economic growth in the second quarter. Preliminary statistics from the Finnish Customs suggests that the weakness in external trade continued in July as the value of goods exported was down 13% over the year and the sum for the first seven months of the year was lower than the sum for the same months of the previous year. The situation in industry improved in the second quarter however, and the rate of growth in industry rose further in July. There was significant growth in peat production, while manufacturing has increased substantially over the year in recent months on the back of production of metals, chemicals, electronics and food. The labour market is also improving, as unemployment fell in July to its lowest level of the past two years. Consumer prices exited deflation at

the start of the year, and yearly growth in prices picked up in July to 0.5%, partly because vehicle tax and prices for health services rose.

Growth slowed in the Swedish economy in the second quarter. The estimate of the statistical office put yearly growth lower at 3.1% (see Figure 7). Seasonally adjusted GDP was 0.3% higher in the second quarter than in the first, which is the weakest result of the past three years. The economy has been supported by the accommodative monetary policy of the Swedish central bank, which has encouraged household consumption and investment in housing. The value of exports was lower in the first half of the year than in the first half of the previous year as export prices fell, though the volume of exports increased over the year, mainly with support from car manufacturing. It was mainly passenger car production that led the rise over the year in manufacturing output volumes in the first seven months of the year. Yearly growth in consumer prices accelerated in July to 1.1%, its highest level of the past four years. Despite higher inflation, the Swedish central bank kept its repo rate at -0.50% at the start of September, and announced that the risks stemming from low interest rates and the high debt levels of households would need to be managed with macroprudential and fiscal policy measures.

The decline in Russia's economy eased further. The flash estimate from the Russian Statistics Service showed the contraction of the economy to have slowed to 0.6% in the second quarter over the year. An improvement in economic activity was supported in the second quarter by a cheaper rouble and growth in the industrial sector due to import replacement. However, industrial companies again produced less in July than they did in the same month of the previous year. Although the value of exports fell substantially in the first half of the year, there was growth over the year in export volumes of several key export articles, such as crude oil, gas, wood and cereals. The construction sector continued to decline sharply though, and household consumption remains weak because of the low purchasing power of the population. The purchasing power of households is constrained by the fall in real incomes. The oil price has remained relatively stable in recent months, and in consequence the exchange rate of the rouble has become less volatile. The yearly growth in consumer prices slowed to 6.9% in August, and in monthly terms, prices were at the same level as in the previous month. The Russian central bank left the one-week repo rate used as the base interest rate at 10.5% at the end of July, but it announced that a cut in base interest rates may be expected if inflation pressures continue to ease.

THE ESTONIAN ECONOMIC ENVIRONMENT

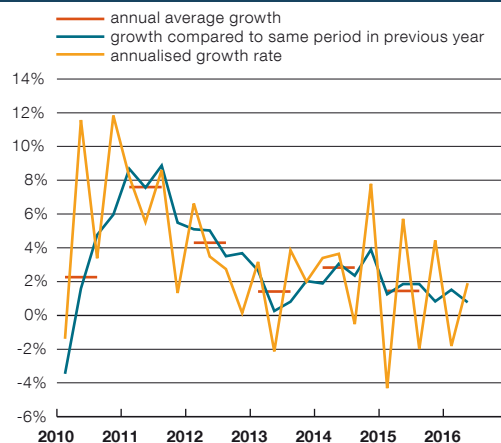
ECONOMIC ACTIVITY

The economy grew by a yearly 0.8% in the second quarter of 2016 and a quarterly 0.5%, which gives an annualised rate of around 2% (see Figure 11). Growth in the economy was based mainly on domestic demand, as growth in investment increased and private consumption remained strong. Export growth also surpassed GDP growth, though increased demand for imports meant that the contribution of net exports to growth was negative. Growth in the second quarter was quite modest, but not all branches of the economy faced problems by any means, and with some exceptions, growth in the economy was broadly based across sectors.

The most positive impact on economic growth came from the information and communications sector, but growth was held back by the real estate sector and by those connected to oil shale (see Figure 12). The value added of the energy sector dropped 28%, and that of mining 27%. Value added growth from all the other sectors apart from real estate and oil shale was 2.8%. Despite the problems in the oil shale industry, total value added increased in seasonally adjusted quarterly comparison by more than 1%. For comparison, the quarterly growth in value added in 2011–2015 averaged 0.6%. Driving in opposition to the fairly strong growth in value added were net production taxes, which slowed growth in quarterly comparison and made a negative contribution partly because of the redistribution of tax receipts between quarters in consequence of the dynamics of rises in excise taxes.

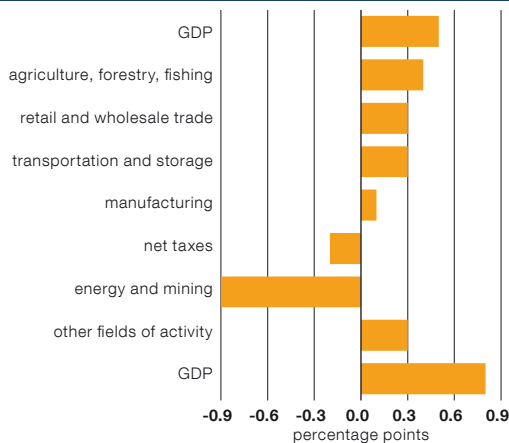
Despite slow growth, companies and households continued to have fairly optimistic expectations about the outlook for the economy over the summer months. This is indicated by the economic sentiment index, which remained only a little below its historical average, and even passed it in the first months of the third quarter (see Figure 13). Confidence strengthened in manufacturing in July and August, mainly because of expectations for increased production. This indicates that industrial companies

Figure 11. GDP growth



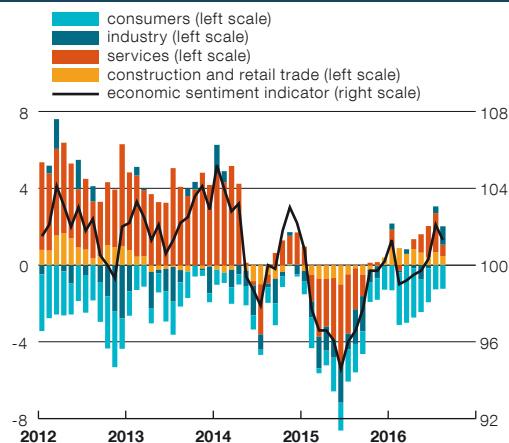
Source: Statistics Estonia

Figure 12. Contributions to GDP growth by industries in 2016 Q2



Source: Statistics Estonia

Figure 13. Economic sentiment indicator and economic confidence by sector



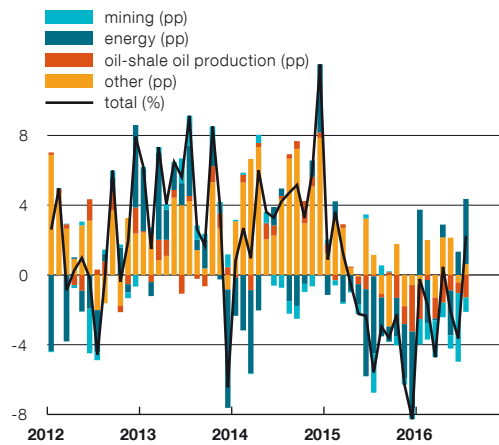
Source: European Commission

expect the economic climate to improve in the months ahead even though the assessment of current production was lower in August than it has generally been in recent months. Confidence indicators do not yet reflect any impact from the Brexit vote (see Box 3 on the economic impact of Brexit on Estonia).

The volume of industrial output seasonally and calendar adjusted was at the same level in the second quarter as in the first quarter, mainly because of reduced output from the oil shale sector. The output of the energy sector was 3% lower than in the first quarter, that of oil production was down 6%, and that of the chemical industry 17%. There was a fall in yearly terms in industrial output adjusted for the number of working days (see Figure 14). The volume of oil shale mined in June was half its usual level, but industrial output in July seasonally and calendar adjusted was 4.6% higher than in June. The growth came mainly from those branches where output was low in the second quarter, with mining output increasing by almost two thirds for example. One reason for the volatility in output volumes this year was the change in the electricity market that followed the addition of a new undersea cable between Sweden and Lithuania in February. The temporary drop in oil shale mining may have been due to the stocks that had been built up in the sector in 2015.

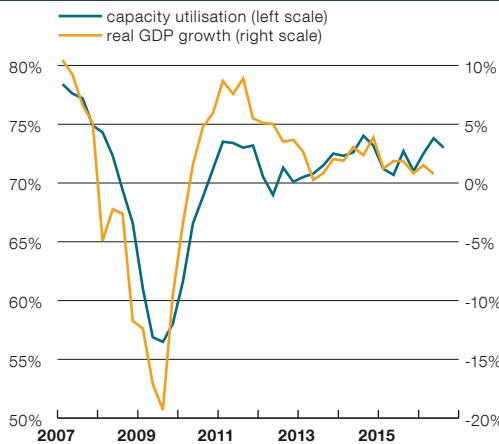
Like in earlier years, the fall in profits was exacerbated in the second quarter because profits shrank mainly in capital-intensive sectors. For the same reason, the fall in profits has affected a relatively small part of the population. On top of this, a large part of one of the sectors that saw the largest fall in profits, the energy sector, is owned by the state, and so a fall in profits there affects most people only years later through the state budget. Company profits continued to decline in the second quarter at the rate of 5.6% over the year. The source of the fall was mainly the oil production, energy, and transportation and storage sectors, and those three sectors saw profits fall by 67% over the year. Profits in other sectors grew by an average of 11%. The fall in profits in manufacturing sectors was affected most by oil processing, though wood and metal processing also had a notable

Figure 14. Yearly industrial production growth



Sources: Statistics Estonia, Eesti Pank

Figure 15. Capacity utilisation



Sources: European Commission, Statistics Estonia

impact. The fall in profits in transportation and storage was broadly based. The main pull on the total figure in the direction of growth came from various branches of wholesale and from the IT sector.

Despite slow economic growth, the spare production capacity in the industrial sector indicates that the volume of output is close to its potential level. At the start of the third quarter the level of capacity utilisation in the industrial sector was 73% (see Figure 15), which is close to the historical average level for utilisation given the structure of the sector. Like it has in other advanced countries, economic growth in Estonia has come mainly from more intensive use of the labour force, though productivity

growth has been low or even negative. Box 4 discusses how growth in corporate productivity has come mainly from investment, while making work smarter has been left in the background. Changes in the structure of employment have

acted as a brake on productivity growth in recent years though, as employment has increased most in sectors with low productivity. At the same time however, low productivity sectors are precisely those where work has become smarter over time.

BOX 3: THE ECONOMIC IMPACT OF BREXIT ON ESTONIA

The departure of the United Kingdom from the European Union will affect the Estonian economy, but how it will do so will depend on the agreement reached in the exit negotiations. Whatever the result of the negotiations, confidence has already fallen after the referendum, both in the United Kingdom and in the rest of the European Union, and there have been wide movements in share prices and increased trading activity. The referendum result pushed the pound sterling down by around one tenth against other major currencies, and the exchange rate has not recovered yet.

Brexit can affect the Estonian economy through various channels, the most important of which are trade, the movement of labour, investment and Estonia's payments to the European Union. The most direct of these connections between Estonia and the United Kingdom is trade. In 2015, 688 million euros of goods and services were exported from Estonia to the United Kingdom, equivalent to around 3% of GDP. Some 3.5% of all Estonia's export production was destined for the United Kingdom. As the United Kingdom is only in eleventh place among the main export destination markets for Estonia, restrictions on access to that market for Estonian exports and thus on economic growth in Estonia would have a fairly small, but still perceptible, impact. To put that in context, exports of Estonian origin heading for the United Kingdom now exceed those to Russia since Russia introduced sanctions and trade restrictions.

Alongside the direct trading relations with the United Kingdom are indirect effects that pass through other partner countries. The United Kingdom is an important partner for Sweden, Finland, Latvia and Lithuania, as well as Estonia, meaning that the negative effect of Brexit could also limit Estonian exports to those countries. It is not only the new set of rules regulating trade between the United Kingdom and the European Union that needs to be considered, as so does the reduction in purchasing power in the United Kingdom if the exchange rate of the pound does not rebound for a long time.

Brexit could also have an economic impact on European Union countries through limits on the movement of labour. There would be practically no direct macroeconomic impact on Estonia, as it is estimated that only 10,000–15,000 people from Estonia live in the United Kingdom. The labour income earned there adds less than 10 million euros a year to Estonian domestic demand, which is 0.05% of GDP. At the same time there could be a cross-border impact if those who emigrated from Latvia and Lithuania return to those countries, as it is estimated by migration surveys in the United Kingdom that over 100,000 people from each have moved to live there. Such a return would give a boost to the economies in Latvia and Lithuania, though it is probable that many people would migrate to other European Union countries.

Neither is Brexit likely to have a significant impact on the Estonian economy through direct investment. Investment from the United Kingdom in Estonia accounts for only 2% of inward foreign investment, and is mainly in financial services and real estate. Estonian investment in the United Kingdom is even smaller at about 0.4% of Estonian investment abroad.

The United Kingdom is a net payer into the European Union, paying more into the Union's budget than it receives from it. The balance of payments of the European Union institutions shows that residents of the United Kingdom paid a total of 30 billion euros into the European Union institutions in 2015, not including the institutions of the monetary union, and received 15 billion euros back. If the United Kingdom's net payment of 15 billion euros, which is the amount paid in minus the amount received back, were divided among the other member states on a GNI basis, in the way that part of the European Union membership fee is calculated, Estonia would have had to pay 28 million euros, or 18%, more in 2015 if the division of payments had remained the same, this being equivalent to 0.15% of GDP.

In total it can be said that the impact of Brexit on Estonia through direct economic connections would generally be quite small, but a fuller assessment of the impact can only be given once the outcome of the negotiations on the form of cooperation between the United Kingdom and the European Union becomes clear in various areas.

BOX 4. THE IMPACT OF CAPITAL INTENSITY AND SMARTNESS ON LABOUR PRODUCTIVITY

Economic growth can be divided into two components. The first is employment growth and the second is labour productivity growth, which is how much the amount produced by each worker increases. Economic growth in Estonia in recent years has mainly come from employment growth, but productivity per person employed has either grown slowly or even declined, depending on the year. Growth of this sort is not sustainable, as the unused labour resources will become exhausted, and so raising living standards needs productivity to be raised. This box considers the sources of productivity growth, dividing productivity into the two components of capital intensity, and the smartness of work.

Capital intensity is defined as fixed assets per worker. Smartness of work is a conditional term that is used here to mean total factor productivity (TFP), which is the part of productivity that cannot be explained by changes in capital intensity. The smart part may arise from more intelligent workers, better machinery, better organisation of production, more efficient use of machinery, cleverer sales work and so forth. The methodology used measures smartness indirectly and thus does not suggest anything about the education of those doing the work or the technological level of the tools used. It is important only how much value the work in question creates in relation to the time and capital invested in it. In principle, well-organised low-skilled work can also be smart.

Data from the annual reports of companies are used in the calculations, aggregated by sector for the years 2005-2014. To eliminate the effect of inflation, the price indexes from the system of national accounts are used for fixed capital formation and value added across sectors.

During the period under observation, productivity in the whole economy increased by 18%, and the data used here show that growth in corporate productivity was close to that at 19%. The decomposition illustrated that labour productivity growth came from an increased capital intensity, while the smartness of work declined (see Figure B4.1). In other words, there was investment in raising productivity, but the potential created was not used efficiently enough. The quite substantial decrease in the estimated smartness of work in business services may have arisen because working space has become more expensive and comfortably fitted out over the years,

but the work that has been done there has not essentially changed. Equally, the effect noted here could partly arise because the data used for fixed assets in the calculation come from the balance sheets of companies, which may have understated the value of the fixed assets at the start of the period, meaning the growth in capital intensity may be underestimated here. On the other hand, the statistics for the national accounts from Statistics Estonia indicate even faster growth in corporate fixed assets in this period. The time series used in the Eesti Pank macro model showed the effect of smartness on productivity growth in this period to be small but still positive.

One cause of the reduction in smartness was the economic crisis that erupted in 2008, one consequence of which was that part of the production capacity in the industrial sector was left unused. This is also indicated by the negative correlation between growth in smartness and in the capital intensity within sectors, as the reduction in output caused by the crisis led the number of workers to be cut, increasing the imputed amount of fixed assets per worker. The under-use of equipment led to a fall in total factor productivity though. A somewhat worse trend is also apparent in that the growth in total factor productivity was more negative in sectors where fixed assets increased faster than the average during the period under observation. This means that there was over-investment or expansion in some areas, which led to equipment being used inefficiently.

Work in areas with lower labour productivity than the average has become smarter

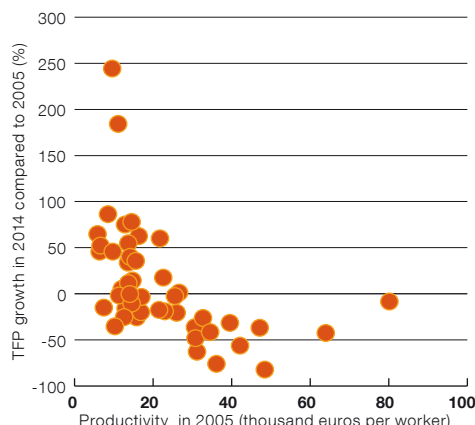
Smartness increased primarily in areas with low labour productivity (see Figure B4.2), which shows that the efficiency, and probably the complexity, of work has increased there, making it possible for them to continue production while the advantage of cheap labour is disappearing. The biggest positive impact on the growth in the smartness component came from wood processing, and production of computers, electronics and optical equipment. The retail sales and wholesale trade sector affected the smartness component the most among domestic market oriented activities (see Figure B4.3). The contribution of the services sector to growth in smartness was generally negative. The largest negative contributions came from transport and storage and from real estate. The decline in smartness in transport and storage occurred mainly in 2007 and 2008 when transit to Russia contracted sharply.

Figure B4.1. Sources of productivity growth in firms



Sources: Statistics Estonia, Eesti Pank calculations

Figure B4.2. TFP growth by industry



Sources: Statistics Estonia, Eesti Pank calculations

Growth in productivity was low in the final years observed. The sector-based approach indicates that low productivity was partly due to the concentration of increased employment in areas with low productivity. The effect of the structure of employment throughout the period observed was small though, as the share of employment increased more in areas with high productivity during the years of the economic crisis. The bigger growth in areas with low productivity in 2012–2014 may have been due to the economic cycle as employment recovered in areas that had suffered during the crisis that started in 2008.

Growth in the smartness component slowed in 2013 and 2014 in the construction sector, where output declined as demand fell. This was probably because of the reduction in the use of the Structural Funds of the European Union and investment of funds from emissions quotas. There was also a large negative effect in transport and storage, which was hit by the reduction in trade with Russia.

Capital intensity has primarily increased since the crisis in sectors focused on the domestic market. The contribution of increased capital intensity to productivity growth in 2012–2014 in those sectors where exports make up a larger part of turnover than the average was very small. In sectors focused on the domestic market however, growth in capital intensity affected growth in corporate productivity in the same years by an average of one percentage point a year.

To test how much of a role in the estimated reduction in smartness could be played by a change in the intensity of work due to the economic cycle, statistics for hours worked in companies are used. Two indicators for the level of capacity utilisation are also used, one showing the relation of working hours per employee to the average for the sector in the whole period, and the other showing the relation of working hours in the sector in the period to the number of working hours in the annual average in the period. Productivity per hour worked has grown more smoothly than productivity per worker, and capacity utilisation indicators make the contribution of capital smoother. However, the data for hours worked do not significantly affect the conclusions drawn for the whole sample.

Description of the methodology

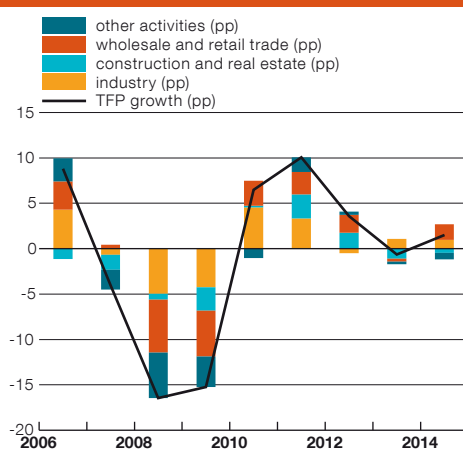
The decomposition of productivity is derived from a Cobb-Douglas production function for sectors, where value added Y_i in the i^{th} sector is expressed as:

$$Y_i = A_i K_i^{\alpha_i} L_i^{1-\alpha_i}, \quad (1)$$

where K_i is the fixed assets, L_i is the number of employees, A_i is total factor productivity, or smartness, and α_i is capital income as a share of factor costs. It is assumed that α_i is constant over time. A similar expression can be used to describe productivity, where y_i expresses productivity for the sector

$$y_i = \frac{Y_i}{L_i} = A_i k_i^{\alpha_i}, \text{ where } k_i = \frac{K_i}{L_i}. \quad (2)$$

Figure B4.3. Contributions to TFP growth by activities



Sources: Statistics Estonia, Eesti Pank calculations

A time index t . should be added for the next expression. Average productivity in the economy $y_{M,t}$ is the productivity of the sector weighted for the share of the sector in employment over all F sectors in time period t .

$$y_{M,t} = \sum_{i=1}^F w_{i,t} y_{i,t}, \text{ where } w_{i,t} = \frac{L_{i,t}}{L_{M,t}} \quad (3)$$

The expression for aggregate productivity growth in period t compared to that in period $t - u$ can be written so that effects of smartness, capital intensity and structural changes in the economy on productivity growth are distinguished.

$$\begin{aligned} \frac{y_{M,t}}{y_{M,t-u}} - 1 = & \quad (4) \\ = & \sum_{i=1}^F (A_{i,t} - A_{i,t-u}) \frac{k_{i,t}^{\alpha_i} w_{i,t} + k_{i,t-u}^{\alpha_i} w_{i,t-u}}{2y_{M,t-u}} + \dots \text{..is the effect of smartness} \\ + & \sum_{i=1}^F (k_{i,t}^{\alpha_i} - k_{i,t-u}^{\alpha_i}) \frac{(w_{i,t} + w_{i,t-u})(A_{i,t} + A_{i,t-u})}{4y_{M,t-u}} + \dots \text{..is the effect of capital intensity} \\ + & \sum_{i=1}^F (w_{i,t} - w_{i,t-u}) \frac{(k_{i,t}^{\alpha_i} + k_{i,t-u}^{\alpha_i})(A_{i,t} + A_{i,t-u})}{4y_{M,t-u}} \dots \text{.. is the effect of structural changes in the economy.} \end{aligned}$$

DOMESTIC DEMAND

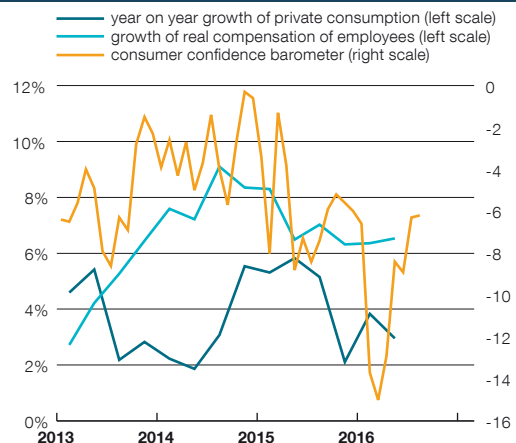
Economic growth in the second quarter was based on domestic demand. Yearly growth in domestic demand picked up from 3.6% in the first quarter to 4.9% in the second, and received roughly equal contributions from private consumption, fixed capital formation and increases in inventories.

Growth in household consumption did slow slightly in the second quarter of 2016, but rising incomes helped put it at 3.0% over the year (see Figure 17). Growth in private consumption was quite broadly based, with households increasing their spending most on food and transport. Alongside the continuing real growth in incomes, the share of non-discretionary spending¹⁸ in household consumption has shrunk.

The expectations of retail companies for sales in the coming months remain quite positive, and the consumer confidence indicator, which fell at the start of the year after some large-scale redundancies, had climbed back to its level of last year by the middle of this year. The growth in the turnover volumes of retail companies slowed quite sharply in July, however. This can partly be explained by the high reference

18 Non-discretionary spending is spending on food, non-alcoholic drinks and housing, including electricity, water, gas, and other heating.

Figure 17. Private consumption



Sources: Statistics Estonia, Tax and Customs Board, Estonian Institute of Economic Research

base, as July 2015 stood out for a much higher rise in turnover volumes than was seen during the rest of the year. The turnover volume index for retail companies has in any case fluctuated a great deal in earlier years, and so continuing rapid growth in incomes suggests that a further moderate increase in private consumption should be expected in the third quarter.

Household consumption has also been supported by increased take-up of consumer loans. Both the volume of new consumption loans and the stock of such loans were on

average 7% larger in the second quarter and in July than a year previously (see Figure 18). The biggest growth has been in car leases and the yearly growth in new leases has remained in double figures.

Household investment, a large part of which is spending on new housing, has increased.

Household investment in the second quarter of 2016 was 39% more than a year earlier. The supply of new residential space from the construction and real estate market is backing up the desire of private individuals to acquire such property. In the second quarter, 60% more residential space received usage permits in Estonia than a year before, with almost twice as much residential space becoming available in Tallinn as a year earlier. Prices for sales and purchase transactions for apartments rose slightly faster in the summer months, but growth remains relatively moderate, at 4% over the year in Tallinn in August, and 6% in Estonia as a whole (see Figure 19).

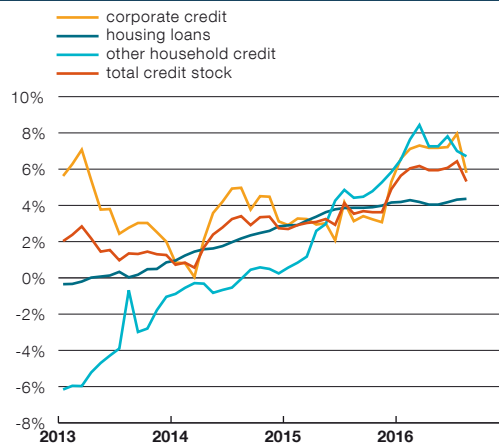
As the real estate market has been lively, so demand for new housing loans also increased,

and it was around 10% more in the summer months than a year before. The yearly growth in the stock of housing loans was 4.4% in July, and in total household loan liabilities it was 4.8%. As growth in household incomes remains faster than growth in household consumption and investment, monetary savings in the form of deposits and cash have again grown slightly faster than loan liabilities. Household deposits were again up around 7% over the year in the second quarter and in July.

Investment by companies in fixed assets was 5.5% more in the second quarter of 2016 than a year previously.

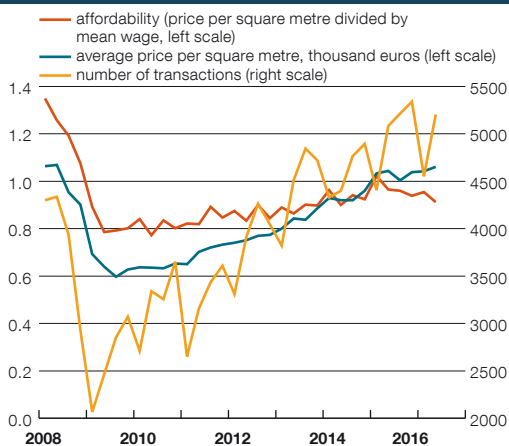
This gives hope that the trough that corporate investment activity had been in for a couple of years has most likely been exited. Investment increased the most in transport vehicles. The confidence of construction companies remains high, with support from companies specialising in buildings, and the assessment by industrial companies of their own position improved in the first months of the third quarter, which could indicate, together with increasing imports of capital goods, that the desire of companies to invest is continuing to pick up.

Figure 18. Yearly credit stock growth



Source: Eesti Pank

Figure 19. Transactions with apartments



Sources: Land Board, Statistics Estonia

Increased investment, favourable interest rates, and good access to credit have together increased borrowing activity among companies.

Yearly growth in the stock of loans and leases taken from banks operating in Estonia was around 6% at the end of July. As borrowing from abroad by companies has not increased at the same rate, total corporate debt liabilities were 2.5% larger in the second quarter than a year earlier. Corporate borrowing grew in the first half of 2016 in particular however, and the yearly growth in debt liabilities implied by the past two quarters was around 7%. Borrowing activity has increased in most areas, but particularly in the real estate and primary sectors. Credit growth continues to be supported by very low base

interest rates and by the relatively strong competition in the corporate loan market, which has kept interest margins low (see Figure 20).

Growth of 5.4% in fixed capital formation was led by increases in investment activity in companies and households (see Figure 21). The government reduced its fixed capital formation by about one fifth over the year though. The reduction in general government investment was felt mainly in the construction sector, where infrastructure construction volumes were also one fifth smaller than a year previously.

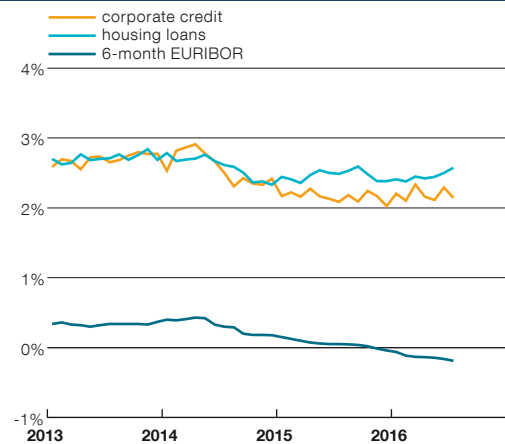
EXTERNAL BALANCE AND COMPETITIVENESS

Estonian trade with the rest of the world increased markedly in the second quarter. Data from the balance of payments show that exports of goods and services were 3.6% more than a year earlier, while imports increased by 5.9%. Such large figures for growth were last seen at the end of 2014.

Foreign trade statistics show that exports of goods were up 1.4% in the second quarter, while the balance of payments put the growth at 3%¹⁹. Growth was led by exports of machinery and equipment and of furniture (see Figure 22). Faster growth was restrained by exports of mineral products, which were down by a total of 35%. The geographical spread saw exports increase to Sweden and Lithuania, while exports to Latvia continued the decline that started in the fourth quarter of 2014, and were down 11.5% in the second quarter of this year. This is partly because exports of mineral products have fallen, but exports of food products, and machinery and equipment to Latvia have also decreased this year. Exports to Russia also shrank. Imports of goods were up by 5% in the second quarter, or by 6% according to the balance of payments, as imports of machinery and equipment and of transport vehicles expanded. The growth in imports of capital goods was slower than in the preceding quarters, but at 11% it still shows that investment activity is on the rise. Imports of consumer goods have also picked up, growing for

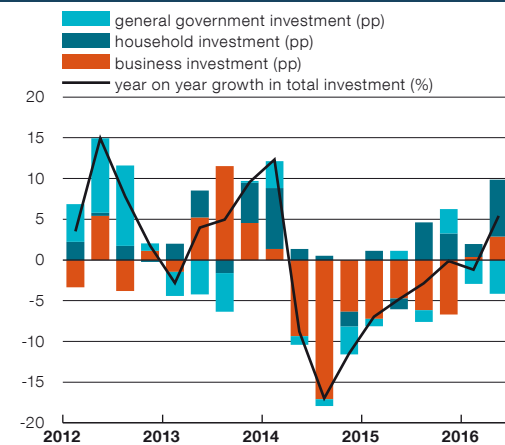
¹⁹ Differences in how exports and imports of goods are recorded in foreign trade statistics and in the balance of trade are described in the methodology for the accounts of the balance of payments. http://statistika.eestipank.ee/failid/mbo/kv_mb2_eng.html.

Figure 20. Bank lending rates



Sources: Eesti Pank, European Central Bank

Figure 21. Gross fixed capital formation



Sources: Statistics Estonia, Eesti Pank

the third quarter in a row and at an increasing rate. Exports of goods were down 6% in July, with the decline being felt in all the major groups of goods.

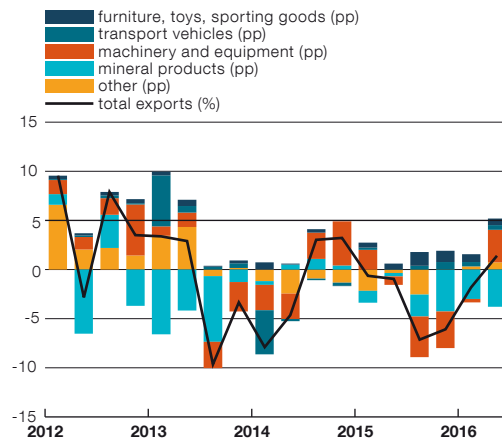
Services exports continued to grow, and yearly growth climbed as high as 5% in the second quarter. Exports increased in travel, telecommunications, construction, manufacturing and other business services. There was a fall for the fifth consecutive quarter in exports of transport services, though this time it did not have such a significant impact on overall exports of services. Among the countries where Estonia exports, Russia has seen a clear reduction in its share of Estonia's services exports in recent quarters, while the USA has become an ever more important partner. Imports of services increased

by 6%, and like with exports, the growth was broadly based. The largest contribution came from imports of business services.

The surplus on the current account of the balance of payments was 104 million euros in the second quarter, or 2% of the GDP of the period (see Figure 23), which is about half what it was in the same quarter last year. This was because of larger deficits on both the goods and income accounts. One factor driving the growth in the deficit on the income account was the income tax paid to the Estonian state in the second quarter of 2015 on extraordinary dividends paid out, as this made the reference base lower than usual. However, the current account has on average been close to balance in the second quarter for the past five years, and in this context the surplus is quite significant. The Estonian economy as a whole was a net lender. Revised data for GDP show that Estonia's net international investment position fell to -42% of GDP in the first quarter, but climbed back to -40% in the second. Direct investment in equity and share capital increased, having previously fallen for two quarters. The flash estimate of the balance of payments shows that the surplus on the current account was a little smaller in July than a year earlier, mainly because the deficit on the goods account was larger (see Box 5 on the contributions of institutional sectors to the balance of the current account).

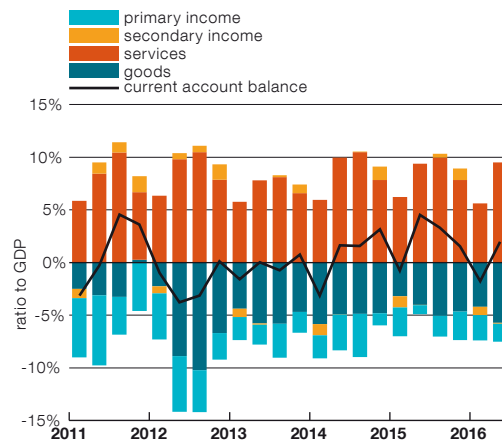
Assessments of competitiveness in the industry survey of industrial sentiment improved at the start of the third quarter. Companies considered their own competitiveness in both the European Union and elsewhere to be better than in the beginning of the year. Current orders for exports were again seen as insufficient, but optimism remains and an improvement is expected in future. The nominal effective exchange rate was around 3% higher than a year before in the second quarter, but it was down slightly on the start of the year (see Figure 24). The real effective exchange rate based on unit labour cost indexes was 1.9% higher in the first quarter than at the same time a year earlier.

Figure 22. Year on year growth in goods exports by groups



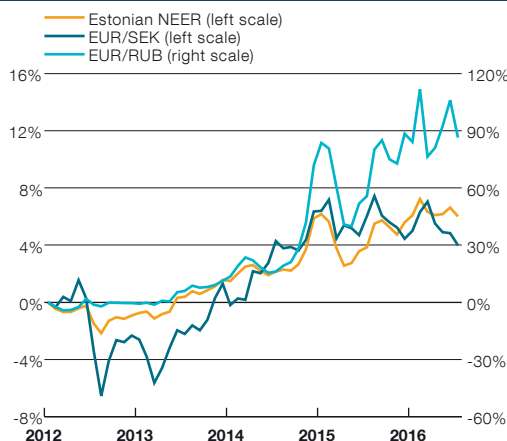
Source: Statistics Estonia

Figure 23. Current account



Sources: Statistics Estonia, Eesti Pank

Figure 24. Change in the euro exchange rate and NEER (January 2012 = 0)

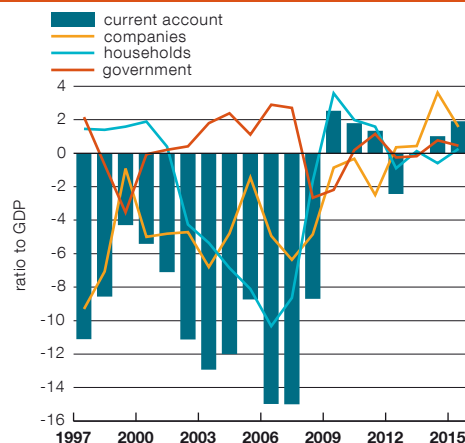


Sources: Reuters, Eesti Pank

BOX 5: THE CONTRIBUTION OF INSTITUTIONAL SECTORS TO THE DYNAMICS OF THE CURRENT ACCOUNT

Before the economic crisis, the Estonian current account was consistently in deficit (see Figure B5.1). With independence regained, the structure of the economy changed, and modern infrastructure had to be built practically from scratch. The deficit on the goods account grew sharply, and this brought the whole current account into deficit. This time can be seen as one of unavoidable investment being made for the development of a transition economy. At the start of the 2000s, the economy started to grow and the secure economic environment, both in neighbouring countries and globally, boosted the confidence of companies and encouraged investment. The deficit on the goods account deepened further and investment was financed with easily accessible credit, and the current account deficit stretched to 15% of GDP in 2007. In the second half of 2008 Estonia was hit by the economic crisis, and this was reflected in the dynamics of the current account. Imports of goods and services dropped by around one third in 2009 while corporate investment dropped by 45%, and the current account moved into surplus for the first time in 15 years. The positive balance narrowed in the years of exit from the crisis, and in 2012 the deficit returned at a couple of per cent of GDP. Since then the balance has moved back into surplus, and in 2015 it was around 2% of GDP.

Figure B5.1. Current account and net savings of institutional sectors



Sources: Statistics Estonia, Eesti Pank

The current account can also be interpreted as net saving in the economy. This means that analysing the savings and investment behaviour of various institutional sectors makes it possible to identify their contribution to the dynamics of the current account. The trend that most clearly affects the current account during this period is visible for companies. Before the crisis, investments by companies were clearly more than their savings, and so their contribution to the current account balance was negative. At first the large investments were made necessary by the general need to restructure the economy, but in the early 2000s the boom in construction started to pick up momentum and investment in the real estate sector grew by an average of one third each year. Investment increased as a share of GDP during the eight years before the crisis by around five percentage points and reached 25% at the peak of the boom. The corporate savings rate rose at the same time by a couple of percentage points less. During the crisis there was a sudden fall in both corporate investment and corporate saving. The fall only lasted for two years, but in that time investment dropped by 11 percentage points of GDP and saving by six. In the years after the crisis corporate investment was raised mainly through funding from the European Union, though it never returned to the heights it had hit. Since 2012 the corporate saving rate has been consistently higher than investment, and the contribution of companies to the dynamics of the current account has been positive.

The behaviour of households was somewhat different to that of companies during this period. In the middle of the 1990s, consumers were very careful and were just recovering their savings. The national economy and banking system were still in an early stage, and there was not a lot of credit available, meaning that there was a lack of investment opportunities for households. At the end

of the 1990s the first opportunities started to appear, and by that time a critical mass of savings had probably been built up. Household net savings remained at 1-2% of GDP before the turn of the millennium. The rapid and stable economic growth in the early 2000s led to a consumption boom for households, which peaked with the real estate boom of 2006–2007. The savings rate was negative, meaning that more was consumed than was earned. On top of this, investment, mainly in housing, was running at twice its average rate at the height of the boom. Household net savings exceeded –10% of GDP in 2006, as credit fuelled a large part of consumption, investment and living costs. The correction during the crisis was very sharp as banks tightened their lending conditions and new loans were not issued lightly. Investment fell by half as a ratio to GDP, and in 2009 the household saving rate surpassed investment by 4% of GDP. Saving then fell again, but this time stably, and from 2012 household net savings have been close to zero.

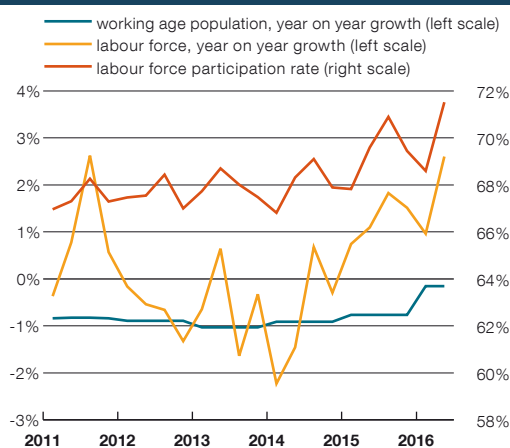
The role of the government should be to provide smoothing over the economic cycle, meaning that governments can save when the economy is growing so that they can spend in more difficult times. In the first half of the 2000s this applied for Estonia. The investments of companies and households brought the economy into bloom and the government built up its reserves at the same time. The government's net savings in 2006 were around 3% of GDP. During the years of the crisis the government supported economic growth, and its investment exceeded saving by some 2% of GDP. This balanced out the overly cautious investment behaviour of households. Since 2012 government saving and investment have been largely in balance, and in recent years more has been saved than invested.

THE LABOUR MARKET

The Estonian population increased by 0.2% in 2015, having fallen prior to that ever since independence was regained. For the first time Statistics Estonia took unregistered migration into account in its population assessment. The population was increased not only by migration, but also by statistical correction. The natural rate of population change remained negative, but less so than in the preceding year because of an increase of around 400 in the number of births. The working age population aged 15–74 shrank by 0.16% in 2015.

In the second quarter of 2016, 71.5% of people of working age participated in the labour force, which was almost two percentage points more than a year earlier (see Figure 25). The amount of labour in the economy was 2.6% more than a year before thanks to the high participation rate. The largest contribution to the participation rate came from women and men aged over 50. The group that shrank most was those who were inactive due to retirement or for health reasons.

Figure 25. Labour supply



Source: Statistics Estonia

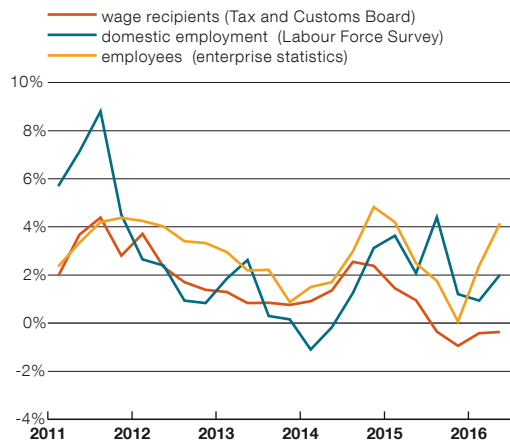
The number of people added to the labour market increased both employment and unemployment. Most statistical surveys showed growth in employment in the first and second quarters of 2016. Data from the labour force survey show that growth in employment in companies and institutions based in Estonia increased from 0.9% in the first quarter of 2016 to

2% in the second quarter (see Figure 26). Because there was a rise in the number of Estonian residents working abroad, overall employment growth was a little faster than that. Like the labour force survey, the enterprise statistics showed rapid growth in employment in the private sector, of as much as 4.1% in the second quarter. The number of people receiving declared wages was 0.4% lower than a year earlier according to the data of the Tax and Customs Board however, with the number of waged employees at companies registered in the commercial register down 0.1% in the second quarter, and the number in government institutions down 2.9%.

The unemployment rate remained at 6.5% in the second quarter of 2016, which is about as high as in the previous quarter and a year before (see Figure 27). Since the end of 2014 the number of people unemployed has ranged between 42,000 and 46,000, except in the outlying third quarter of 2015. There has been a notable shortening of the average duration of unemployment however. The number of long-term unemployed was 28% lower than a year before, while the number of short-term unemployed rose by 25%. The share of the unemployed who were long-term unemployed reached 30%, which is a little higher than the 24% recorded in the first quarter, but a lot lower than a year previously. The number of registered unemployed fell in monthly terms in the first half of 2016, but then started to rise again in June and July. This was because more people who were partly able to work registered as unemployed following the introduction of the work capacity reform from 1 July 2016.

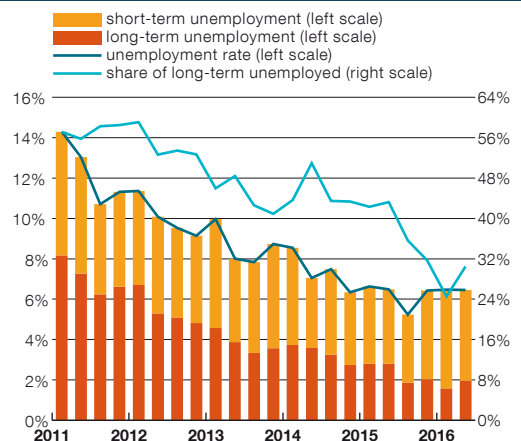
Average gross monthly wages rose by 8.1% in the first quarter of 2016 and by 7.6% in the second quarter (see Figure 28). Wage growth was supported in both quarters by bonuses, and in the past year and a half it has been aided by a shift in the structure of employment by sector. Wage growth was slowed in 2014 under the influence of the registration of workers, as employment increased in sectors where wages were below the average. These sectors have again had a declining share in employment since 2015 however, and so the structural effect has been positive.

Figure 26. Year on year growth in employment



Sources: Statistics Estonia, Tax and Customs Board

Figure 27. Unemployment



Sources: Statistics Estonia, Töötukassa, Eesti Pank

The sector where wage growth has been faster than the average has been the service sector. The rapid growth in some areas, such as accommodation and catering, and real estate, may be related to the efforts made by the Tax and Customs Board to reduce wages that are left undeclared. Wage growth was below average in non-manufacturing industrial sectors, which have been experiencing difficulties due to low energy prices and the fall in trade with Russia.

Data from the Tax and Customs Board on the average declared wage in 2016 did not show growth getting any faster (see Figure 28). This is partly due to differences in how different measures of wages are defined. The average gross

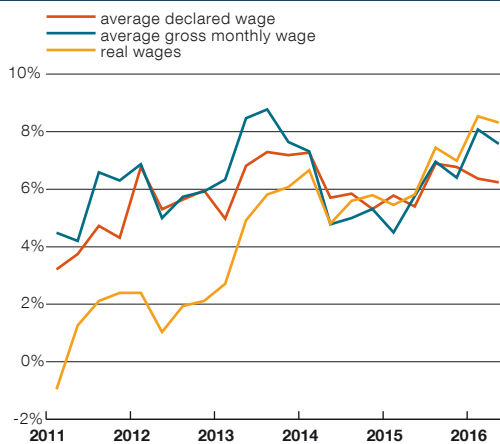
monthly wage is adjusted for full-time equivalent work, but the data from the Tax and Customs Board do not differentiate between payments for part-time and full-time work. This means that if part-time work is increasing, the growth rate of the average wage paid out may fall behind that of the full-time equivalent monthly wage.

The difference between the growth rates for net and gross monthly wages has been small this year, because there has not been any major change to the taxation of labour, the only change being a rise in the tax-free minimum income from 154 euros to 170. If the majority of wages are negotiated as net wages, then the measure of wages started rising faster from the middle of 2015, and continued to do so at the start of 2016. In other words it could be that companies had to raise gross wages in 2016 so that the net amount received by employees would grow as fast as it did in the previous year.

The number of vacancies increased in the second quarter of 2016 by 12.5%, and the vacancy rate rose to 1.7%, indicating that tension remains in the labour market. The biggest contribution to growth came from accommodation and catering, and administration and auxiliary activities. The number of vacancies in manufacturing fell meanwhile. The movement of labour has also increased, and in the first quarter of 2016 the number of people hired was up by almost one fifth, having fallen for around a year prior to that, while at the same time there was a rise in the number leaving work at the initiative of the employee. This indicates that people were changing job more than they were before.

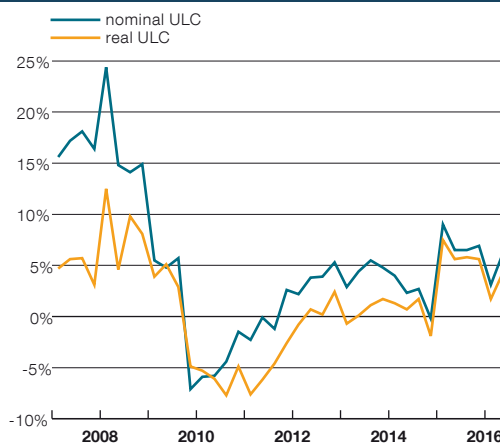
After showing temporary growth in the first quarter, productivity returned to its decline in the second quarter. The effect of this was to increase growth in unit labour costs (see Figure 29). The payroll rose by 6.9% in the first quarter of 2016 and by 6.3% in the second quarter, which is slower than in 2015. Growth in compensation per employee was far behind the growth in the average wage. The time series for GDP was corrected at the same time as the GDP data for the second quarter of 2016 were released. The revised estimate puts

Figure 28. Yearly change in average wages



Sources: Statistics Estonia, Tax and Customs Board

Figure 29. Unit labour cost growth



Source: Statistics Estonia

compensation for employees at 3% lower than was previously estimated in 2014 and labour income one percentage point lower as a share of GDP. This meant that the growth in labour costs was not faster than that in labour productivity in 2014 by as much as had been earlier understood. The assessment of the payroll for 2015 was changed little by the revision, and so growth in labour income increased sharply in 2015.

PRICES

The consumer price index continued its slide in the second quarter, but in August consumer prices rose for the first time in more than two years. Prices stopped falling partly because the impact of the prolonged drop in energy prices

started to fade, and partly because higher excise rises pushed up prices of alcohol and tobacco (see Figure 30). Additional price pressures were caused in the summer months by individual seasonal items, notably vegetables and clothing and footwear, though the impact from this could weaken in the months ahead.

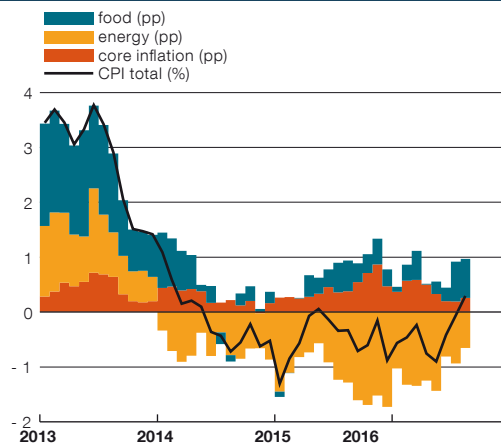
The price levels of imported energy and goods are low, though the lowest point has probably already been passed in commodities markets. Prices for both crude oil and agricultural produce have risen from their low level of the start of the year, but this has not yet affected the Estonian consumer price index significantly.

Economic activity remained weak in the second quarter and did not induce additional demand-side price pressures. GDP growth slowed in the second quarter, while unit labour costs rose because wages continued rising quickly, though firm mark-ups have fallen consistently. Consumers' inflation expectations are currently low, making it harder for companies to raise prices.

There was a notable change in the composition of the consumer price index in the second quarter, as rising food prices started to drive inflation upwards, while core inflation was being slowed by services. The rise in food prices over the year exceeded 2% in August, though prices for agricultural produce on the single European market remain low. Food prices rose because of the combined impact of the rise in excise on alcohol at the start of this year and higher excises on tobacco since July. Their total effect on growth in consumer prices was 0.6 percentage point in August. Additionally, fruit and vegetable prices rose unusually fast in the summer months. Prices for garden produce have generally fallen in the summer in recent years because of seasonal factors. Among processed foods, milk and dairy products have seen prices continue to fall, and the downward trend in prices has not yet ended.

Energy prices continued to be affected in the second quarter by the earlier fall in the oil

Figure 30. CPI growth



Sources: Statistics Estonia, Eesti Pank

Figure 31. Core inflation and its components



Source: Statistics Estonia

price. The fall in prices was broadly based as not only did motor fuels become cheaper, but so did the other main fuel types. In July oil prices on the world market started to move downwards again having risen for half a year. The negative effect of energy prices in yearly terms was smaller in the third quarter and the low reference base for energy prices will boost inflation through the first months of next year. Having fallen in price for several years, energy and food make up a smaller share of the consumer basket, while the shares of services and manufactured goods have increased. Changes in the structure of consumer spending have had a negative effect on inflation, which is discussed in Box 6.

Core inflation, which was held up for a long time by rising services prices, came down noticeably in the summer. At the start of the second quarter core inflation was at 1%, but in June it was down to 0.3% (see Figure 31). Services inflation has been reined in in recent months by slower growth in rents, which is in line with developments in the real estate market. Higher wage costs have created extra costs for companies providing market-based services, and that is probably why

prices have risen for leisure and tourism services. Inflation has been low for transport services, probably because of the low oil price. The other component in core inflation alongside services is manufactured goods, which have seen prices rise more quickly in recent months. Prices for clothes and footwear were higher in summer than a year earlier as sales discounts this year were smaller than those last year.

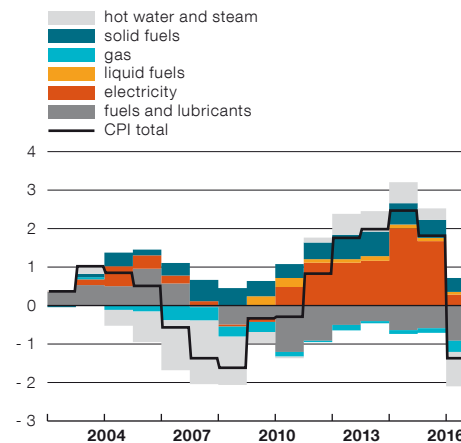
BOX 6: THE IMPACT OF STRUCTURAL CHANGES IN CONSUMER SPENDING ON CONSUMER PRICES

The consumer price index (CPI) measures the price level of goods and services, given the underlying structure of consumption expenditures. The prices of consumables are weighted for their share in the consumer basket. The structure of household consumption expenditures can change over time because of economic factors and because of changes in preferences. Changes in the expenditure weights have had a notable impact on the headline inflation measure in Estonia, as they have made the rise in the price level in the past 15 years around one tenth smaller.

The CPI weights reflect the shares of goods and services in the consumption expenditures, and they are updated annually following the results of the household budget survey. The structure of the consumption spending of Estonian households has changed over the years due to changes in the prices of products as well as in the quantities consumed. As a rule, a rapid rise in the price of one good increases its share in consumption expenditure, but the effect of this is offset at the same time by a reduction in the quantities bought. The share of district heating in the consumer basket dropped sharply until 2008 for example, as the price rose very quickly, at a rate that passed 20% a year (see Figure B6.1). This led consumers to prefer to consume cheaper electricity, the share of which increased even after the jump in price that followed the opening of the electricity market in 2013. The share of motor fuel in the basket has been less elastic to price changes however, and has declined consistently since 2008. There was a major change in the CPI weightings in 2016 as the fall in energy prices on world markets left consumers with more available money to spend on consuming other goods.

If the recent short-term volatility in energy commodities prices is disregarded, the structure of consumption spending in the long term in Estonia has been affected by rising income levels. As the income level has risen in the past 15 years, so the share of non-discretionary spending in the consumer basket has decreased. The share of food products in the Estonian consumer

Figure B6.1. Change of CPI weights from the year 2001



Sources: Statistics Estonia, Eesti Pank

basket is 4.2 percentage points lower than in 2001 at 31%, and the share of energy is down 1.3 percentage points at 13%. At the same time, core inflation, which covers manufactured goods and services, has increased by 5.5 percentage points to 56%. It can be assumed that the same trend will continue in future, given that core inflation makes up over 70% of the consumer basket in the richest countries in the euro area. Table B6.1 shows the change in the CPI for 2001–2016 decomposed into the relative effects of price and weightings. The change in weightings has pulled inflation down by around one tenth over the long term. Although energy and food have risen in price, their share in the consumer basket has shrunk, and so the relative effect of the weightings has been negative. However, inflation has been slowed strongly by manufactured goods, as durables such as electronics and cars have become cheaper while their share in the basket has increased at the same time.

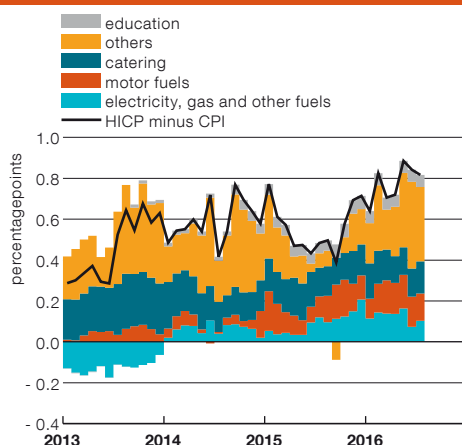
Table B6.1 Impact of CPI weights on inflation

	CPI total	Food	Energy	Non-energy industrial goods	Services
Weight in 2001 (%)	100	34.8	14.9	26.3	24
Weight in 2016 (%)	100	30.6	13.5	28.5	27.4
Cumulative price growth 2001-2016 (%)	50	65.5	88.8	9.7	11.9
Cumulative contribution to price growth 2001-2016 (pp):	50	20.3	13	2.6	13.7
of which change in weights	-5.6	-2.7	-0.4	-3.3	0.9
of which change in prices	55.5	23.1	13.4	5.9	12.7

Sources: Statistics Estonia, Eesti Pank

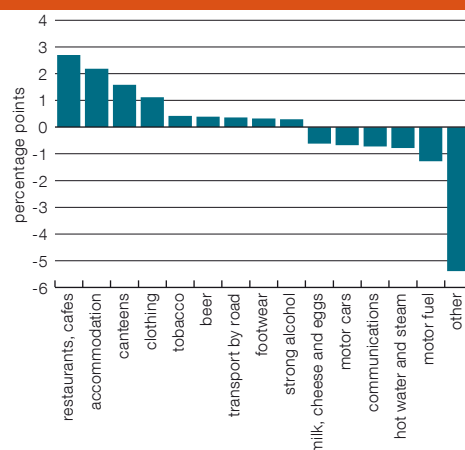
The composition of the consumer basket has had a significant impact on the headline inflation measure in Estonia in international comparison too. The difference between the national CPI and the Harmonised Index of Consumer Prices (HICP) used for comparison with the rest of the euro area widened in June 2016 to a record 0.8 percentage point²⁰. This was again because of the combined impact of price changes and weightings. In contrast to the CPI, the HICP has a larger share of services consumed by tourists and of alcoholic drinks and tobacco products, because

Figure B6.2. Contributions to the difference between HICP and CPI



Sources: Statistics Estonia, Eurostat, Eesti Pank

Figure B6.3. Difference between HICP and CPI weights



Sources: Statistics Estonia, Eurostat, Eesti Pank

²⁰ A disadvantage of national consumer price indexes is that different countries may use different methodologies. This mainly concerns imputed rent prices, though in some countries the consumer price index also covers interest payments and credit card fees.

cross-border trade is so active²¹. The energy component provides a smaller share of the HICP than of the CPI though (see Figure B6.2). Prices have risen relatively rapidly this year for tourism services and alcohol, but energy prices have fallen steadily, and this has stretched the difference between the HICP and the CPI. In 2011–2013 the gap between the two inflation measures was smaller because of rises in energy prices (see Figure B6.3).

21 The measure of HICP inflation has been compiled in the European Union since 1997 with the aim of unifying the compilation of price statistics between countries. The HICP is used to calculate the Maastricht inflation criterion, and is also used as the reference value for price stability in the euro area. The main difference in the weightings of the HICP and the CPI is that the HICP also covers purchases by tourists within the territory of the country. The HICP also only considers direct monetary spending by consumers on goods and services by excluding the prices of imputed rent.

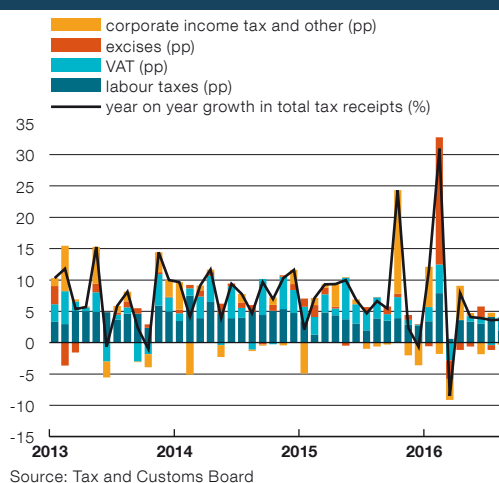
GENERAL GOVERNMENT FINANCING

In the first half of the year government revenues in total were higher than spending, and the budget surplus was 0.2% of the forecast GDP of the year. Tax revenues have been stronger than was expected in the state budget or the Eesti Pank June forecast, and spending has risen more slowly. Seasonality and tax refunds mean that there is usually a budget deficit in the first half of the year, or a smaller surplus than in the second half. This logic suggests that the budget for the year as a whole should remain in surplus, assuming there are no large changes or surprises in store at the end of the year.

Growth in tax revenues slowed in the second quarter after the spurt at the start of the year caused as excise goods were stocked up on, but it remained faster than GDP growth. Rapid wage growth has meant good receipts from labour taxes, but there was also a positive contribution to growth in government revenues from higher excise rates. Although the declared volumes of petrol, diesel and alcohol are substantially below those for last year, the rise in excise rates of 15–20% has more than compensated. Without more precise information on volumes sold it is hard to reach conclusions on whether and how much the rise in excise has changed the behaviour of consumers. The biggest uncertainty is around alcohol, as the stocks built up at the start of the year continue to affect the volumes declared. Taking a time frame that covers both the building up and the running down of stocks, from August to July say, the volume of strong alcohol declared can be seen to fall by around 6%.

In total the state treasury received 6.7% more in taxes in the first eight months of the year

Figure 32. Tax receipts in the state budget



than it did in the same months of the previous year (see Figure 32). On an accrual basis²², and considering all the tax types used in the methodology for the system of national accounts, tax revenues increased by 11.8% in the first quarter and by 3.3% in the second.

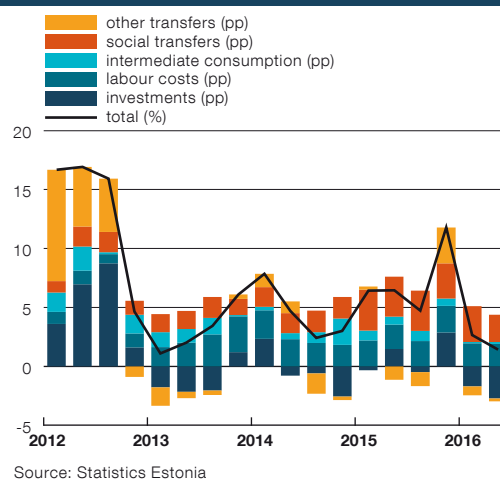
Growth in the total spending of the general government was restricted in both the first and second quarters mainly by a reduction in investment, which was particularly sharp for local governments (see Figure 33). Data from the Riigiraha website, which displays the state finances, show that local governments and their subordinates acquired 37% less in fixed assets in the first half of the year than they did in the first half

22 Accrual accounting means that taxes are recorded under government spending in the period when the economic activity occurs. Among tax revenues are various revenues that by their nature are treated as taxes, such as pollution charges, car registration fees or sales revenue from emissions quotas.

of 2015, while investment by central government and by funds also declined. The reduction in investment can largely be explained by the slow take up of funds from the European Union's Structural Funds. Although a similar amount of project applications had been filed by the start of summer as by the same point in the previous budget period, the actual take up has been much smaller. The reduced investment by the general government is particularly noticeable in the economy in the fall in infrastructure construction volumes.

Growth in current spending continued to slow in the second quarter as government institutions not only limited their spending on administration, but the yearly growth in wages and unemployment insurance benefits also slowed. The yearly growth in the compensation of employees slowed in the second quarter to 6.4% from 6.7% in the first quarter, as growth in the average wage slowed in the local government sector. At the same time, reductions in the numbers of employees in government institutions continued, which is in line with the government plan to keep general government employment

Figure 33. General government expenditure



stable as a share of the population. Yearly growth slowed in social transfers because the number of new recipients of unemployment benefit has been falling since the end of last year²³. In addition, a new lower pension index was introduced from April that led to lower yearly growth in the average pension.

²³ From seasonally adjusted data.