EUROSÜSTEEM

ESTONIAN ECONOMY AND MONETARY POLICY

2/2014

Eesti Pank

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The Estonian Economy and Monetary Policy is an Eesti Pank review that contains analysis of the main recent events in the Estonian economy and the forecast for the current calendar year and the next two. The Eesti Pank economic forecast is produced jointly by experts from the central bank's Economics and Research Department and Financial Stability Department. The Eesti Pank forecast is a part of the joint forecast for the euro area produced by the euro area central banks and the European Central Bank, which uses common assumptions about the external environment. The assumptions about the external environment cover the interest rates in the euro area money markets, the exchange rate of the euro, and commodity prices. The economic forecasts produced at the same time by the other central banks of the euro area are used for the assumptions for demand and prices in Estonia's trading partners during the forecast horizon. The external environment forecast assumptions are based on information available as at 19.11.2014, and the data on the Estonian economy available as at 14.11.2014. The Eesti Pank forecasts are compiled using EMMA, the macro-model of the Estonian economy developed and regularly updated by Eesti Pank

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ECONOMIC FORECAST 2014-2016

SUMMARY

The Estonian economy in 2014 was oriented more towards the domestic market, which offset the weakness that has dragged on in foreign markets. Export growth was still strong even so, as the growth in exported goods and services exceeded the growth in demand for imports in destination countries. Although the Estonian economy grew more slowly in the third quarter, data indicate a slight improvement in economic activity as growth has picked up in industrial production volumes, and expectations for output have become more optimistic. The assessment by companies and households of the economic environment also improved in the autumn even though the state of the global economy is worse than had been expected and geopolitical tensions have increased, raising uncertainty.

The world economy has not recovered at the expected rate this year and recent forecasts by various institutions, including the International Monetary Fund, the European Commission and the European Central Bank, have adjusted growth in the years ahead downwards. Growth levelled off in the euro area in the first half of this year, but the reduced need for consolidation, an accommodative monetary policy, lower credit restrictions, lower commodity prices, and a depreciation of the euro against other currencies will all support its recovery. The acceleration in growth will be very slow, which will limit Estonia's capacity to increase exports. The outlook for exports would improve if companies were to expand more actively into markets with higher growth.

The choice of destination market gained importance this summer because of the introduction of trade sanctions. Although the impact of sanctions on Estonian exports and total output has been mild so far, it has encouraged the search for new markets and export opportunities for the goods that are subject to sanctions. Adding new target destinations and diversifying markets would support growth, because although Estonia has managed to maintain and even increase its market share in traditional markets, world trade will mainly pick up in markets that are not traditional for Estonian companies in the coming years.

Finding new markets would help to counterbalance the uncertainty about the recovery in demand that has been around for some time now and has restrained investment activity among companies. Companies have invested carefully and this attitude has not been changed by the intensive use of current production capacity. As production capital is not being taken on at the speed expected earlier, the potential growth in the years to come will be lower than in the previous forecast. The conditions for an acceleration of growth in investment remain good, as corporate balance sheets have improved, the debt burden has fallen significantly, and interest rates on loans are low. Investments are needed, particularly in increasing efficiency, for companies to be able to cope with an ever more expensive labour force.

Growth in wages and employment has raised the purchasing power of households and the purchasing power of employees with low wages has increased the most. The average wage has grown more slowly this year as companies reacted to their profitability being eaten away by higher wage costs. Slower wage growth has had a limited impact on real household purchasing power as consumer price growth slowed at the same time and prices have fallen since June. Growth in average wages will accelerate in the coming years together with the increase in economic activity.

Consumer prices fell year-on-year in June for the first time since the start of 2010. Four years ago the fall in prices was caused by the underuse of production capacity because of the crisis and by the lack of demand, and prices fell across a wide range of goods and services, but this year the fall in prices has mainly been driven by cheaper energy and food. The largest fall in consumer prices came in August and price levels will start to increase gradually in the coming quarters, though inflation will still remain subdued throughout the next two years. Although the prices of domestically produced goods and services will rise quickly as labour becomes more expensive, the rise in inflation will be restrained by the weakness of the price pressures coming from imported goods and services.

Despite the weak economic conjuncture, the rapid growth in wages and household consumption have brought the government more in tax revenues this year than was forecast, which has improved the state finances. The budget will still be in deficit in 2014 and several tax changes and increases in social transfers will deepen the budget deficit in 2015. Though the nominal budget deficit will remain small in the years ahead, the structural deficit and the need for consolidation that it could provoke may make tax rises or spending cuts necessary.

The risks to the Estonian economy from labour costs and real estate prices are smaller than they were six months ago. The growth in unit labour costs slowed in the first half of the year, but by less than was earlier forecast. The calming of the real estate market has been more remarkable, as the annual growth in real estate prices clearly slowed by the autumn and the average transaction price was below its peak of the first quarter. The main sources of risks are still any possible shock to foreign demand and the uncertainty caused by geopolitical circumstances. However, if uncertainty declines faster than expected it could lead to stronger growth in investment and consumption, which would boost economic growth higher than forecast. If the risks around the outlook for economic growth in Estonia are realised, the total impact will be to reduce growth.

This forecast contains six boxes of background information. The first as usual reviews the latest trends in the monetary policy of the euro area, the second considers the effect on the Estonian economy so far of the sanctions imposed this summer, the third summarises the technical impact on the forecast for the Estonian economy of the GDP revision released in September, the fourth decomposes the sources of productivity growth at the company level, the fifth analyses the causes of the increase in the share of labour costs in recent years, and the sixth looks at the causes of the lower inflation this year in terms of the Phillips curve.

THE EXTERNAL ENVIRONMENT

The outlook for growth in the world economy is worse than it was in the June forecast and global economic growth is proving slower than was expected in 2014. Growth in global trade has mainly fallen because trade flows have dried up in emerging economies, most noticeably in Asia, where the growth of Chinese import demand has declined together with GDP.

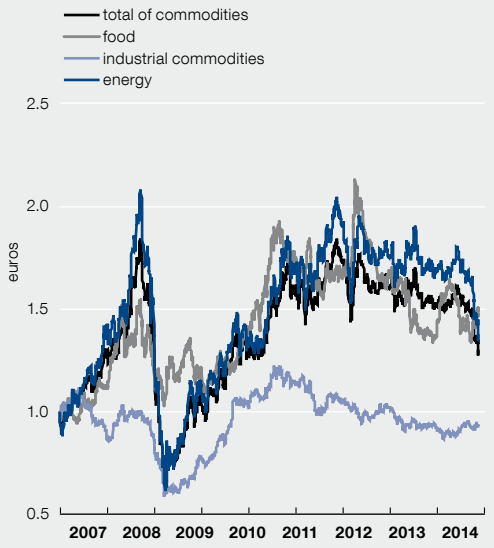
The weak economic environment has led to expansive monetary policy and low base interest rates in major countries. The US Federal Reserve decided in October to end its asset purchases as planned, and interest rates are likely to rise earlier in the USA than in other economic areas. At the same time, markets are expecting that the looser monetary policy in the euro area and Japan will remain in place for a long time yet.

Economic activity will improve next year, but the speed of recovery will vary between regions, with a good outlook for growth in the USA but slower growth in Japan and the euro area. The relatively strong economic position of the USA and the expansionary monetary policy in the euro area and Japan could at the same time support a faster recovery in the global economy. The main risk to global growth is that geopolitical tensions may worsen, which could reduce both growth in world trade and corporate and consumer confidence by more than expected.

Demand in Estonia's trading partners has grown less quickly than was forecast in June and growth will continue to be slower throughout the forecast horizon. Weaker growth in external demand this year has mainly resulted from recession in Finland and from Russia's economic weakness and conflict with Ukraine. The impact on Estonia's main trading partners of the sanctions imposed because of the conflict has been relatively modest so far, but geopolitical tensions and weak global demand have lowered the growth forecasts for those countries. The lower expectations for external demand growth are also reflected in a decline in confidence in Estonia's main trading partners, and only in Sweden has confidence remained fairly buoyant. External demand will start to grow faster for Estonia as the economies of trading partners improve in 2015 and growth will hit 4.2% by 2016.

Price pressures for commodities have remained low due to the heterogeneous growth in the global economy (see Figure 1). The assumed oil price is considerably lower than that used in the June forecast at 88.5 US dollars per barrel in 2016. This fall in oil prices has been driven by weakness in demand and an absence of any significant reduction in oil production despite tensions in the Middle East and Ukraine. There is also confidence in the market in OPEC's capacity to balance any possible disruptions

Figure 1. Commodity price indices* (January 2007=1)



Source: HWWI
* last observation 14.11.2014

to oil production caused by a worsening of the geopolitical tensions. Rising output in the USA and the lifting of the export ban on Libya have also supported the supply of oil. A good harvest this year means that prices for food commodities will grow more slowly in the near future. The weaker outlook for growth in China has pushed metal prices down but a modest recovery in metal prices is expected during the forecast horizon with support from recovering global demand.

The euro exchange rate has depreciated mainly because of the increase in economic activity in the USA, and whereas the euro was appreciating against the US dollar in the first half of the year, since May it has weakened steadily. The forecast assumes that the exchange rate will remain at its last fixed level, leaving the euro significantly lower against the dollar than was assumed in the June forecast throughout the forecast horizon. The 3-month EURIBOR, the European short-term interbank interest rate, is expected by markets

Table 1. External assumptions in the forecast

					June 2014 projection		
	2013	2014	2015	2016	2014	2015	2016
Foreign demand growth (%)*	1.6	0.7	2.3	4.2	2.3	4.2	4.9
Oil price (USD/barrel)	108.8	101.2	85.6	88.5	107.2	102.2	98.2
Interest rate (3-month EURIBOR, %)	0.22	0.21	0.08	0.14	0.26	0.25	0.43
USD/EUR exchange rate	1.33	1.33	1.25	1.25	1.38	1.38	1.38

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

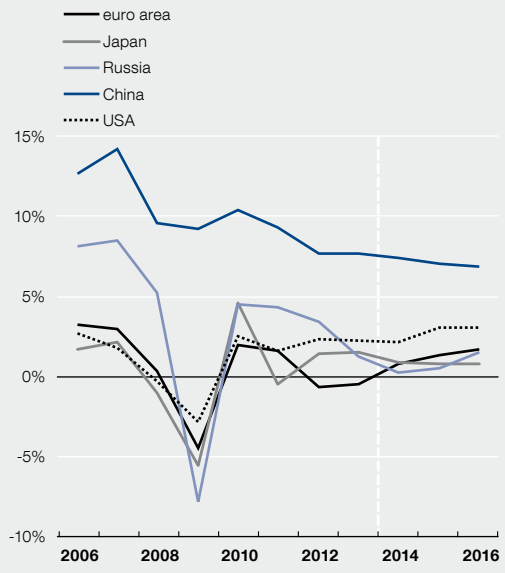
to rise more slowly than was earlier assumed, with the rate reaching 0.1% by 2016, which is 0.3 percentage point lower than in the June forecast (see Table 1).

Major countries and the euro area

The American economy has recovered strongly after the decline in the first quarter and the outlook for growth remains solid throughout the forecast horizon. Growth in the third quarter was broad-based with contributions from government and household consumption, exports, and non-residential fixed investment. Economic activity is supported by the reduced need for fiscal consolidation and an accommodative monetary policy, and the labour market will see improvement as employment rises and unemployment falls. Improving confidence will encourage higher household consumption and corporate investment will be supported by recovering domestic and foreign demand. The International Monetary Fund forecasts that the American economy will grow by 2.2% in 2014 and by 3.1% in 2015. Although growth estimates have been revised downwards from the June forecast, growth will accelerate more strongly next year. Despite the recovery in the labour market, inflation remains low and there has been no change in long-term inflation expectations.

The Chinese economy grew at its slowest rate for five years in the third quarter of 2014. The deceleration was caused by domestic demand responding to modest growth in credit and investment, and the slowdown in investment

Figure 2. Output growth of larger economies



Source: IMF WEO, October 2014

growth was mainly caused by a slowdown in the real estate sector. On top of this, the Chinese government is seeking to rebalance the economy and to make growth less dependent on exports. The International Monetary Fund expects that growth in the Chinese economy will slip to 7.4% in 2014 and fall further in the coming years. Inflation has fallen notably since the start of this year and will remain well below the government inflation target of 3.5% for 2014. Sluggish growth and low inflation have led the People's Bank of China to loosen monetary policy somewhat, by cutting the base rate by 0.4 percentage point in November to 5.6%.

The economy of the United Kingdom grew strongly in the first three quarters, although the growth decelerated a little in the third quarter. Growth is being driven by domestic demand, which is mainly based on household consumption and gross fixed capital formation. Manufacturing and services also contributed to growth in the third quarter, but net exports made a negative contribution. The growth of exports is restrained by the appreciation of the pound and the weakness of economic activity in the euro area, which led the Bank of England to lower its growth forecasts for 2014 and 2015. The new forecast is for growth of 2.9% this year and 2.6% next year. The Bank of England also cut its inflation forecast for 2014 and 2015, meaning that the rise in key interest rates planned for the start of next year may be postponed.

The Japanese economy declined in the first three quarters of the year, and although exports, government consumption and public investment all increased to an extent in the third quarter, it was not enough to offset weak private consumption. Private consumption has been constrained by a rise in value added tax, which has reduced the purchasing power of consumers. A weak yen and increasing demand in the USA and Asia have supported growth in exports. Growth in the economy is still being held back by the need for fiscal consolidation and the economy will grow very slowly in 2015 and 2016. To revive economic activity, the Bank of Japan decided to expand its asset purchase programme.

Growth in the euro area slowed in the first half of the year because of weakness in external and domestic demand. Growth accelerated very slowly from the second quarter to the third but it is still hindered by the large public sector debts and the ongoing need for fiscal consolidation, though the need for consolidation has diminished lately. Geopolitical tensions have increased, which makes the outlook for exports uncertain and has delayed investment decisions. Economic activity in Germany has declined considerably, and the government has had to lower its growth forecast for this year and next. The economy in Italy remains weak and has shrunk this year, with slow growth to come next year. The Spanish economy will exit recession this year however, thanks to domestic demand, and growth will pick up strongly in the next two years. The depreciation of the euro could help exports in the euro area to recover. Inflation will remain low, mainly because of sharp falls in prices of energy and food and the weak demand in the euro area will keep inflation well below the target of the European Central Bank throughout the forecast horizon.

The Baltic states

Growth slowed in Latvia in the third quarter but will accelerate for this year as a whole. The main base for growth has been consumption built on real growth in household incomes, and in the first half of this year construction also contributed strongly to economic growth. Manufacturing has so far remained relatively weak, but that is mainly because the metalworking industry has been struggling, but metal production should recover as new investments are coming. The recovery in the external environment will lead to faster growth in exports and investment in 2015 and 2016 and so to an acceleration in economic growth. Unemployment will continue to fall and inflation will remain low this year, though it will accelerate significantly next year when the electricity market opens.

Growth in Lithuania has been fast, and the main driver of growth this year has been domestic demand, which has been boosted by household consumption and investment. Household consumption is being supported by rapid wage

growth and low inflation and investments are being driven by high levels of activity in construction. Large scale public investments are planned throughout the forecast horizon, partly through projects funded by the European Union, though growth in exports will be restrained by the poor state of domestic oil refining and fertiliser production because of weak foreign demand. As the external environment improves, the contribution of exports to economic growth will probably increase. Rising employment and falling unemployment are improving the labour market, and the Lithuanian economy will be given additional confidence by the country's accession to the euro area in 2015. Accession may put some upward pressure on consumer prices, but low energy prices will ease inflation pressures in the near future.

Finland and Sweden

The Finnish economy is very probably in recession for the third consecutive year in 2014 and the outlook is again weak. Economic activity is restrained by structural problems, making it hard for Finland to offset the decline in electronics and forestry and to regain competitiveness. Domestic demand will remain low going forwards and private consumption will be hindered by higher unemployment and only modest wage rises. Confidence indicators confirm that the economic environment will remain weak. Exports will recover in 2015 and 2016 to a certain degree with support from investment and economic activity in the main trading partners, but Finnish exports will continue to lose global market share. Growth will improve slowly in 2015 and 2016.

The Swedish economy is doing well and economic activity will improve in 2015 and 2016 with the main support for growth coming from domestic consumption and residential investment. Household consumption is supported by low interest rates, rising incomes and rapid employment growth, while unemployment continues to fall. An improvement in foreign demand will boost export growth. Inflation in Sweden is moving close to zero or even deflation, but the central bank aims to keep inflation at 2%. The bank cut its benchmark interest rate to 0.0% in October and says it will remain there until inflation clearly picks up. The challenge for the Swedish central bank is to find a balance between low inflation and rising household debt.

Russia

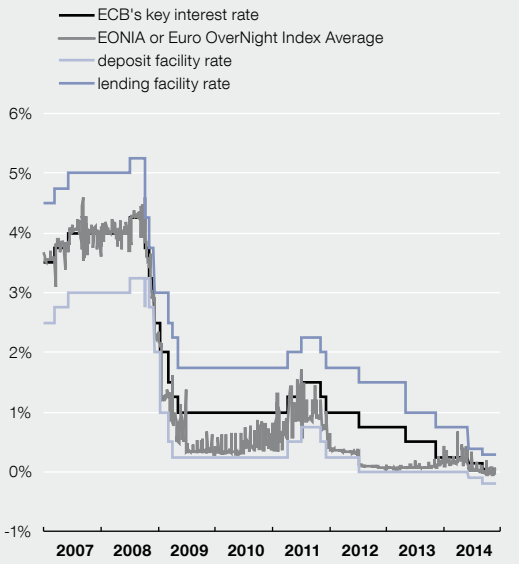
Growth in Russia was low even before the conflict with Ukraine, and the outlook for the economy has now worsened due to the sanctions imposed because of that conflict. The Central Bank of the Russian Federation considers that the economy could fall into stagnation in 2015 and the lack of confidence in the economy is reflected in large capital outflows, which will remain high next year too. Investment is falling and the private consumption that has driven growth so far is constrained by falling real disposable incomes. The rapid depreciation of the rouble and the import ban on food products have caused inflation to reach its highest level for three years in the second half of 2014. To halt the fall in the rouble and the rise in inflation, the Russian central bank raised benchmark interest rates in October by 150 basis points to 9.5%. In addition, the bank completed the transition to an inflation targeting regime, but since the rouble exchange rate was allowed to float freely in November, the rouble has continued to fall.

Box 1: The monetary policy environment in the euro area

The monetary policy environment of the euro area remained favourable in the second half of 2014. The Governing Council of the European Central Bank cut monetary policy interest rates in September to their lowest levels under the economic and monetary union, with the interest rate on the main refinancing operations at 0.05%, the interest rate on the deposit facility at -0.20%, and the interest rate on the lending facility at 0.30% (see Figure B1.1). The forward guidance from the Governing Council of the European Central Bank has, however, stated that key interest rates will remain low for an extended period of time and that monetary policy is in line with the price stability aim of keeping inflation rates below but close to 2% over the medium term.

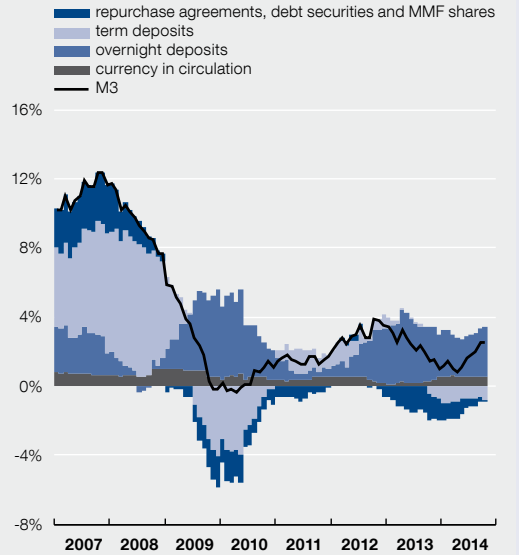
The Harmonised Index of Consumer Prices for the euro area grew ever more slowly in the second half of 2014, remaining below 1% and reaching 0.3% in November, and it was negative in October in two member states. Inflation was mainly lower because of lower energy and food prices, though in recent months it has been boosted by the depreciation of the euro, which has fallen by 11% against the US dollar from the peak it reached in May. Inflation has also been brought down by innovations in communication services, which have helped tighten competition and have increased the quality and speed of services. The Governing Council of the European Central Bank observes the risks to price stability closely, particularly the speed of economic recovery, developments in the exchange rate and in energy prices, including the impact of geopolitical tensions, and the transmission of monetary policy measures into the economy. The

Figure B1.1. Eurosystem key interest rates and EONIA*



Source: European Central Bank
* last observation 30/11/2014

Figure B1.2. Euro area annual money growth*



Source: European Central Bank
* last observation October 2014

December macroeconomic projections by experts from the Eurosystem find that inflation will remain low in the euro area for some time yet, but will rise to 1.3% in 2016, reaching 1.4% in the fourth quarter[1]. A survey by the European Central Bank in the fourth quarter showed that professional forecasters expect long-term inflation for the euro area to be 1.8% in 2019[2]. Instruments that reflect inflation expectations have fallen, particularly for the short term, but also for the long term to an extent.

Low inflation, weak demand in the euro area, the search for yield in the market, and the reduction of leverage of banks and the non-financial sector have all contributed to restraining the recovery in growth of the money supply. The broad monetary aggregate M3 has been supported at the same time by growth in deposits in the non-financial sector, increases in the net foreign assets of monetary financial institutions and monetary policy measures taken by the European Central Bank. The annual growth rate of M3 accelerated from 0.8% in April to 2.5% in October (see Figure B1.2). Annual growth in household and corporate deposits has picked up slightly in the second half of 2014. The interest rates for non-financial sector deposits remain low at below 2% and have fallen by 140 basis points from 2012. Annual growth in lending to the non-financial sector in the euro area has remained negative throughout 2014 though the rate has closed from -1.8% in April to -1.1% in October. Growth in lending to households has remained close to zero and the decline in the corporate loan stock slowed from -2.8% in April to -1.8% in October. However, the latest Bank Lending Survey of the euro area shows that the lending conditions to the non-financial sector have started to be loosened[3] and demand for credit has started to grow. The improvement has been slower in southern Europe. The positive impact of cuts in the monetary policy interest rates for the euro area together with the use of various monetary policy measures has gradually been passed into the loan interest rates of the non-financial sector, and the loan rates on mortgages and on corporate loans, especially those for between 250,000 and 1 million euros, are 80-90 basis point lower than in 2012.

The European Central Bank extended its non-standard monetary policy measures significantly in June and September to support the monetary policy transmission mechanism and the supply of credit to the non-financial sector at a time when monetary policy interest rates are at the lower bound. There has also been concern that economic growth has been lower than was expected in the second quarter, inflation is very low and short-term inflation expectations have fallen sharply. The new measures indicated to financial markets that monetary policy in the euro area will remain accommodative for an extended period of time, which stands in contrast to the move towards a tightening of monetary policy conditions that has been seen in the USA.

1 See ECB press conference, 4 December 2014.

2 See https://www.ecb.europa.eu/stats/prices/indic/forecast/html/table_3_2014q4.en.html.

3 See http://www.ecb.europa.eu/stats/money/surveys/lend/html/index.en.html. A change in lending conditions is 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 conditions such as margins or collateral demands, and those banks that said they have loosened their terms. A negative net rate means that a majority of banks have eased their lending terms.

The Governing Council of the European Central Bank decided in June to start offering credit institutions targeted longer-term refinancing operations (TLTRO) from September 2014 to June 2016, which are primarily intended for further lending onwards to non-financial companies in the private sector. In the first round in September, 83 billion euros in loans was issued to 255 counterparties representing 738 credit institutions directly or indirectly. At the start of September the European Central Bank decided it needed to increase its direct control over the growth of the monetary base and set up asset purchase programmes to run for at least two years. Purchases of covered bonds (CBPP) started in October, and the portfolio stood at 17.8 billion euros on 28 November. The purchase programme of simple and transparent asset-backed securities (ABSPP) started in November, and on 28 November the portfolio stood at 368 million euros. These measures should encourage banks to issue securities that are suitable for purchase and in order to provide more lending to the non-financial sector. The Governing Council believes that the package of measures will have a sizeable impact on the Eurosystem's balance sheet, which is intended to move towards the dimensions it had at the beginning of 2012. It is not possible to predict the size of the balance sheet with any accuracy, because it is not known how much liquidity the banks will inject into the real economy or how well the capital markets for asset purchases will function. The main aim of an accommodative monetary policy is to drive the inflation rate close to 2% using many various transmission channels and to keep inflation expectations anchored. Euro area credit institutions have continued to repay their loans under the three-year longer-term refinancing operations[4] as maturities approach and other, cheaper, sources of funds have been used instead. On 28 November the banks had paid back 714 billion euros, or 70% of the loans they had taken. The Governing Council of the European Central Bank confirmed that if the economic or financial environment worsens, it is unanimously prepared to use additional non-standard monetary policy instruments to cope effectively with the risks from inflation remaining low over the long term.

The lowering of the key interest rates in June and September in the euro area and the new monetary policy measures have affected short-term money market rates[5], which have fallen to their lowest ever levels. Expectations for short-term interest rates remain low partly because of growth in excess liquidity[6] resulting from monetary policy measures, which also affects long-term interest rates. Between June and November, EONIA[7] fluctuated between –0.05% and 0.07%, apart from high rates for technical reasons on the last days of each month, and it remained below the interest rate on the main refinancing operations of the European Central Bank. In November the short-term money market interest rates were more than 20

4 These operations lent out a total of 1.02 trillion euros to credit institutions of the euro area, with 489 billion euros in December 2011 and 530 billion in February 2012. Borrowers have the right to pay the loans back after one to three years.

5 Interest rates fixed for up to one year.

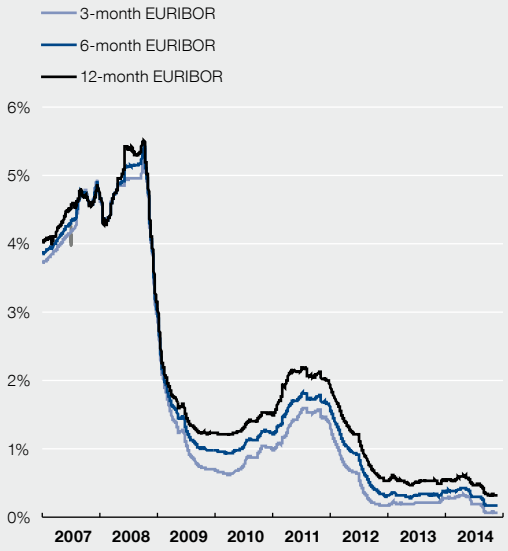
6 Liquidity beyond the need for liquidity in the banking system of the euro area. This comes from autonomous factors such as government deposits and reserve requirements: permanent facilities (the deposit facility - overnight loans) + excess reserves (the current account balance - minimum reserve requirement).

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

basis points down on the levels of the start of the year and the end of May, with the three-month EURIBOR[8] at 0.08%, the six-month EURIBOR at 0.18%, and the twelve-month EURIBOR at 0.34% (see Figure B1.3). The main fall in EURIBOR came after the meeting of the Governing Council of the European Central Bank in September. Trading by banks on the overnight market has remained active, but the market for liquidity in the euro area is still fractured. The money market yield curve as shown by the gap in the one-month and twelve-month EURIBOR was close to 30 basis points in November, as it had been in May.

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

Figure B1.3. Euro area money market interest rates*



Source: Bloomberg
* last observation 30.11.2014

ECONOMIC ACTIVITY

The Estonian economy grew by 1.4% over the year in the first half of 2014. Growth was held back in the first quarter by various temporary factors like a fall in the value added of the energy industry because of the warm winter, and a drop in construction caused by a reduction in public sector investment. The decline in transport and storage caused by the fall in the oil transit trade also continued. Annual growth picked up in the second quarter mainly because the effect from the temporary factors diminished.

Growth in demand was primarily supported in the first half of this year by household consumption, which increased by 3.6% over the year. Rises in real incomes and consumption were helped this year by rising wages and high levels of employment, and also by low inflation and falling prices from June. GDP growth has been restricted by the weakness in the external environment, as demand growth in the main trading partners has been weak. GDP growth in 2014 will in the end be faster than it was in 2013, but at 1.9% it is still slower than long-term potential.

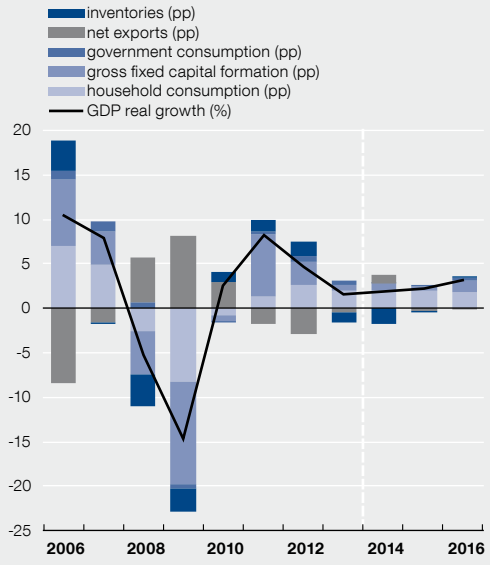
Estonian GDP growth will increase during the years covered by the forecast though, reaching 2.1% in 2015 and 3.3% in 2016 (see Figure 3). The revival of growth will draw on returning external demand alongside demand from households. Although the data available so far indicate only weak growth in demand in Estonia's trading partners in 2014, an increase in growth in those economies is forecast for the coming years, and so also a strengthening in demand. Investment will join household consumption and external demand in supporting demand growth throughout the forecast horizon, having been held back before now by uncertainty about the recovery in growth.

The contribution of industrial production to growth in the years of the forecast will increase on the back of foreign demand. Value added from manufacturing increased in the first half of 2014 by only 0.3%, but higher output volumes indicate that the contribution to growth from manufacturing increased in the second half of the year. The main growth in manufacturing output in the third quarter came from production of machinery and equipment, including computers, electronics and optical devices, which has earlier been responsible for the high volatility in growth in manufacturing. Output fell in mining and the energy industry.

Rises in the Estonian wage level may have reduced the price competitiveness of the exporting sector, which may start to limit growth in manufacturing, but the evidence for this is contradictory. It is more profitable for companies with low productivity to move production to countries with cheaper labour, and this has been seen in some individual factory closures. The closure of less productive branches is a natural part of business and does not cause problems for an economy if the companies that are exiting are replaced by jobs with higher productivity and higher wages. The European Commission's survey of manufacturing companies reveals that companies have a positive opinion of their competitiveness, which means that there are more companies whose competitiveness has improved than there are companies whose competitiveness has fallen. The share of companies able to increase their competitiveness has still fallen in recent years.

Value added fell in construction both in 2013 and in the first quarter of 2014. This was a consequence of lower investment from the public sector and of the economic difficulties in Finland, which is a major target market for Estonian construction companies. Orders for construction from the public sector will remain smaller than the peak

Figure 3. GDP growth by expenditure method



Sources: Statistics Estonia, Eesti Pank

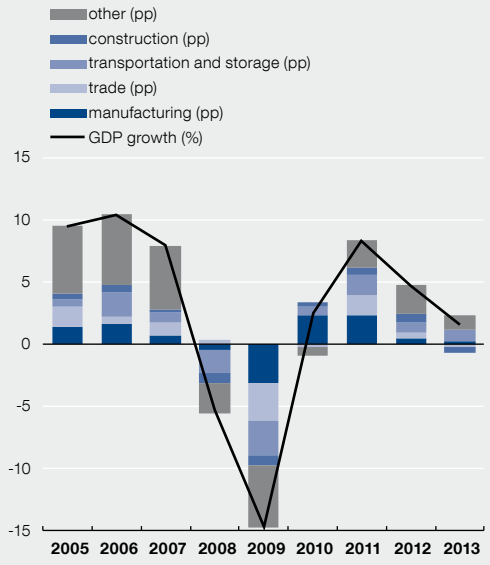
reached in 2012 throughout the forecast horizon, as investments made with help from EU funds will shrink and it is planned that less will be spent on construction during the new European Union budget period than before. Growth in construction will come from the gradual revival of demand in the private sector during the years of the forecast.

Services have played an important part in the growth in the economy in 2014, and also in 2013, when private sector services outside of finance, real estate and transport and storage added 0.8 percentage point to growth. Information and communication had the biggest effect among business services, adding 0.6 percentage point, and this was the second biggest contributor after trade, which had been lifted by household demand. In Figure 4 the developments in services are mainly shown by the contribution of other sectors. Services will increase their share of employment in the years of the forecast,

but as the growth in productivity in services will remain below growth in the economy, the share in the economy should not change significantly. Growth in services will be aided by higher domestic demand and a revival in the external environment.

The impact of the conflict between Russia and Ukraine on the Estonian economy has so far been small. After Russia annexed Crimea, expectations for manufacturing output fell for those countries where a significant share of exports go to Russia. Assessments by companies of orders and stocks of finished products indicate that demand has not fallen noticeably and at the end of summer expectations for output recovered. Although production volumes were not really reduced by the conflict, companies may have delayed investment and expansion plans because of the increased uncertainty.

Figure 4. Contributions to ouptut growth by sectors



Source: Statistics Estonia

Russian trade sanctions in the form of an import ban on food products mainly affect food production and agriculture, but to a lesser extent they also affect wholesale and transport. This was seen in the production volumes of dairy products, which were 7% smaller in September than before the sanctions were introduced in July. The sanctions have had a bigger impact on turnover however, as lower demand has led to a fall in prices, but this impact has remained small for the economy as a whole. The impact of the Russian sanctions is described in more detail in Box 2.

As the Estonian economy will grow at below potential output growth at the start of the forecast period, the size of the economy will be below its balanced long-term level throughout the forecast horizon and the output gap will be negative. The shrinking labour force means that unemployment is probably already below its equilibrium level, and this has accelerated wage growth. More efficient use of production inputs will lead to a gradual closing of the negative output gap during the forecast period. There is still room for hours worked per employee to increase (see Figure 5), and labour productivity will rise from its cyclical low.

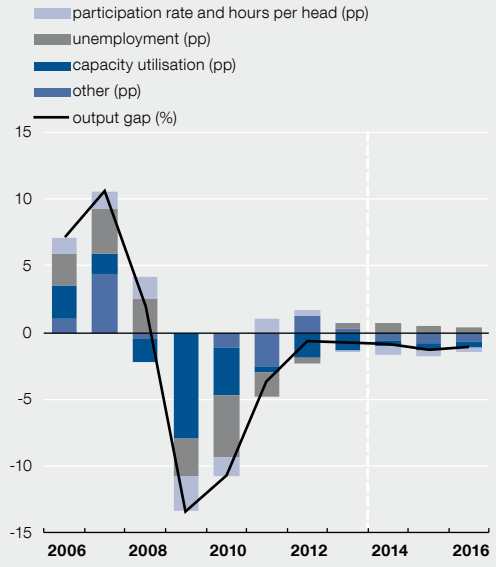
Potential growth in Estonia will be noticeably lower in future than it was before the crisis of 2008. The first reason for this is that Estonia is catching up with richer countries, so that while Estonia's GDP at purchasing power parity was 45% of the European Union average in 2000, it had reached 73% of the average in 2013. As it becomes ever harder for companies to grow by adopting new technology, growth in technology and productivity has slowed for some time in Estonia. A second reason is that the shrinking population and emigration have led to a reduction in the contribution of labour to potential output, and a third is that potential growth has been limited since the crisis of 2008 by changes

in the structure of the economy as a result of external factors and by low growth in the rest of the world. This is seen for example in the fall in the transit of Russian oil through Estonia, which will probably not recover. Weak growth in foreign demand has made companies more careful in their expansion plans than they were before the crisis, and the supply side of the economy has grown slowly as a result.

Improvement in the economic environment will make expansion plans more optimistic and so potential growth will increase with support from capital growth and technological development. The potential growth of the Estonian economy is forecast to be 3–4% in the coming years (see Figure 6). This rate is in line with the convergence that has been seen so far in Estonia's relative income level, and takes account of the negative impact of the shrinking of the labour force on economic growth.

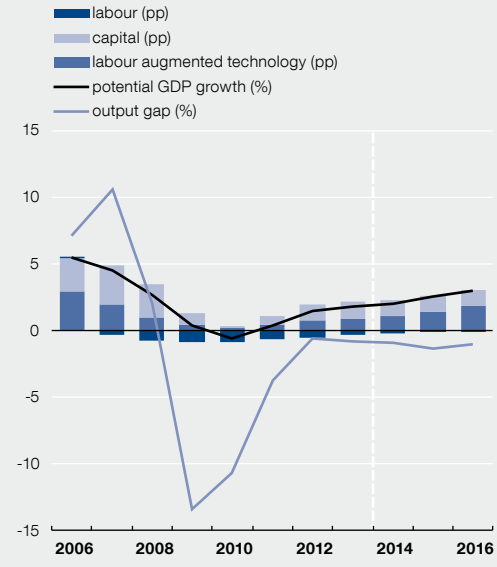
The forecast for the main macroeconomic indicators for Estonia is shown in Table 2, and a comparison of the forecasts for growth and inflation with those of other institutions is shown in Table 3. Box 3 discusses the technical effect of the revision of GDP on the forecast for economic growth for 2014.

Figure 5. Decomposition of the ouput gap



Sources: Statistics Estonia, Eesti Pank, European Commission

Figure 6. Potential growth and the output gap



Sources: Statistics Estonia, Eesti Pank

Table 2. Economic forecast by key indicators*

					Difference from previous forecast		
	2013	2014	2015	2016	2013	2014	2015
Nominal GDP (EUR bn)	18.74	19.52	20.44	21.64	0.33	-0.01	-0.15
GDP, volume change (%)	1.6	1.9	2.1	3.3	1.2	-1.8	-0.3
Private consumption expenditures, volume change (%)	3.8	3.8	3.9	3.6	1.5	-0.1	-0.2
Government consumption expenditures, volume change (%)	2.8	0.5	0.3	1.2	0.8	-0.6	-1.0
Fixed capital formation, volume change (%)	2.5	2.8	1.7	4.7	4.8	-5.9	-0.5
Exports, volume change (%)	2.6	3.1	2.6	4.3	0.9	-0.9	-0.2
Imports, volume change (%)	3.1	2.1	3.1	4.7	1.3	-0.7	0.1
Productivity per employee, change (%)	0.4	2.0	2.7	4.0	0.0	-1.5	0.0
CPI, change (%)	2.8	-0.1	0.8	2.1	-0.9	-1.6	-0.6
HICP, change (%)	3.2	0.6	1.1	2.4	-0.7	-1.7	-0.6
GDP deflator, change (%)	4.5	2.2	2.5	2.5	-1.2	-0.1	-0.4
Current account (% of GDP)	-1.4	-0.3	-0.7	-1.1	0.4	1.1	0.6
Unemployment rate (%)	8.6	7.7	7.9	7.7	-0.8	-0.6	-0.6
Domestic employment, change (%)	1.2	-0.1	-0.5	-0.7	1.2	-0.2	-0.3
Real compensation per employee, change (%)	4.0	6.3	4.1	3.6	0.9	0.9	-0.4
Average gross wage, change (%)	7.8	5.4	5.4	6.0	-0.6	-0.8	-0.7
Private sector debt, outstanding amount change (%)	1.3	4.0	3.8	4.4	2.2	0.8	0.3
Gross external debt (% of GDP)	93.6	97.6	93.8	89.6	15.4	14.7	13.4
Budget balance (% of GDP)	-0.5	-0.3	-0.6	-0.4	0.3	0.2	-0.1

* GDP and its components are chain-linked
Sources: Statistics Estonia, Eesti Pank

Table 3. Estonian economic forecasts by other institutions

	GDP real growth, %			CPI Inflation, %		
	2014	2015	2016	2014	2015	2016
Eesti Pank	1.9	2.1	3.3	-0.1 (0.6*)	0.8 (1.1*)	2.1 (2.4*)
Ministry of Finance	0.5	2.5	3.5	0.3 (0.8*)	1.9 (2.3*)	2.5 (2.8*)
European Commission	1.9	2.0	2.7	0.7*	1.6*	2.2*
IMF	1.2	2.5	3.5	0.8*	1.4*	2.1*
OECD	2.0	2.4	3.4	0.5*	0.9*	1.7*
Consensus Forecast	1.6	2.6		0.2	1.6	
SEB	1.2	1.3	2.8	0.1*	1.6*	1.9*
Swedbank	2.0	2.5	3.0	0.0	1.3	2.0
Nordea	0.7	2.7	3.5	0.4	2.0	2.5

* HICP
Sources: Eesti Pank, December forecast, 10.12.2014; MoF, Summer 2014 forecast, 01.09.2014; European Commission, Economic Forecast Autumn 2014, 04.11.2014; IMF, WEO, October 2014, 07.10.2014; OECD, Economic Outlook, November 2014, 25.11.2014; Eastern Europe Consensus Forecasts, November 2014; SEB, Eastern European Outlook, October 2014, 08.10.2014; Swedbank Economic Outlook, 06.11.2014; Nordea economic forecast, 03.09.2014

Box 2: The impact of Russian trade sanctions on the Estonian economy

The Russian embargo on the import of food products had a major impact on some individual subsectors, but the impact on the economy as a whole has been small. The ban on imports applies to Estonian exports of dairy produce, meat, fish, and fruit and vegetables to Russia. The value of the goods exported from Estonia to Russia in 2013 to which the sanctions now apply was 76 million euros, and 65 million euros of that was produced in Estonia. The sanctions also affect the Estonian economy through international product chains, such as Estonian exports of raw milk to Lithuania, one of whose main markets for dairy products is Russia. The value of the

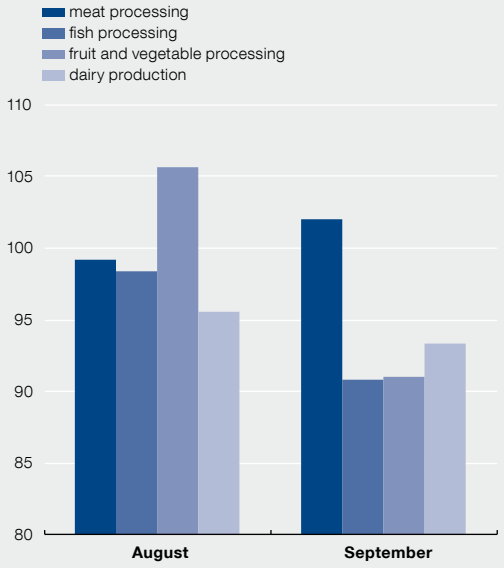
goods exported from Estonia to Lithuania in 2013 that are now subject to sanctions was 59 million euros. Immediately after the sanctions were imposed, the possible impact on the Estonian economy was estimated at 0.2-0.3% of GDP.

Data published so far for exports in August and September show that the impact of the sanctions has been about what it was first estimated at. Seasonally adjusted annualised exports of goods subject to sanctions fell by between 75 and 120 million euros, depending which method of adjustment is used and how detailed the data are.

Exports from the goods under sanctions were 13.5% smaller in September than in July, before the sanctions were introduced, with dairy products losing the most and falling by a quarter. Not all of this fall can be attributed to Russian sanctions, as part of it came from lower milk prices, which were already falling before the restrictions came in.

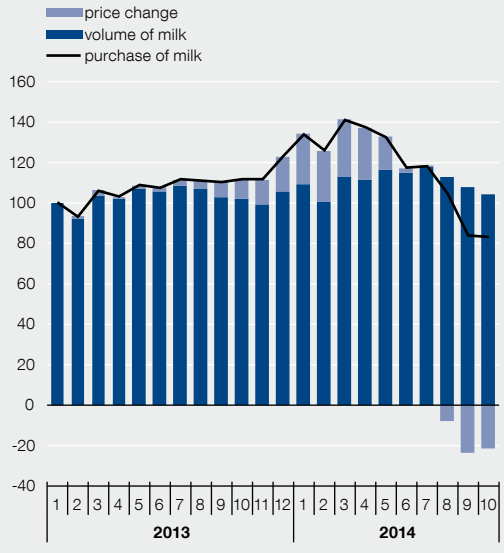
Output in the industries affected fell markedly, but the impact on industry as a whole was small. Dairy production was around 7% lower than in July once seasonal factors and price changes are taken into account (see Figure B2.1), while production from processing of fish and fruit and vegetables was down around 9%. Sanctions have not reduced output from meat processing, because Russia had already imposed restrictions on imports of meat at the start of the year, and so it increased by 2% from July to September. As the changes in these food processing industries in the two months were not much different from the normal short-term fluctuations in the industry, it is not possible to identify the impact of the sanctions statistically. The fall in the produc-

Figure B2.1. Production in sectors affected by Russian sanctions (July 2014 = 100)



Source: Statistics Estonia

Figure B2.2. Purchase of milk, January 2013=100



Source: Statistics Estonia

tion volumes in the industries directly affected by sanctions was less than 0.3% of total manufacturing output.

The data released so far show that the sanctions had a larger impact in agriculture than in industry. This is shown by the turnover of purchases of milk, which were 6.2 million euros smaller in September than in July. However the monthly exports of goods subject to sanctions fell by less, declining by 5.4 million euros, with exports of dairy products accounting for 4.6 million euros of that. With only two months of data, it is of course too early to say whether the impact of sanctions on raw milk producers is disproportionately larger than that on other parts of the production chain, or whether it is a temporary change caused by seasonal production factors, changes in stocks or measurement error. Purchases of milk in Estonia were 8.5% smaller by volume in September than in July, and the purchase price was 22% lower. The volume was mainly reduced by seasonal factors and it fell by 5% in the same months last year, but the milk purchase price has been falling in monthly terms since April. By volume, 36% less milk was exported to Lithuania, and the price paid in Lithuania fell by 30%. Despite the fall in August and September, milk purchases were up 4% on last year in September, but the fall in price meant that 24% less income was earned (see Figure B2.2).

Box 3: The effect of GDP revisions on the forecast for economic growth

On 8 September Statistics Estonia published revised statistics for the national accounts that reflected additional data and methodological changes. At the same time it started using ESA 2010, the new European System for National and Regional Accounts[9]. Following the revision, GDP at current prices for 2000–2013 increased by 0.2–2.3% for each year, averaging 1% over the whole period. Real annual growth changed for those years by between –1.1 and 0.1 percentage points and quarterly growth by between –1.5 and 0.9. As the change in GDP came mainly from the regular review of the data and the addition of new data sources, the figures for GDP growth are now more consistent with other figures, including average gross wages and private consumption. Statistics Estonia also adjusted private consumption growth to be faster.

Statistical revision of GDP is the most important factor in changing the forecast for economic growth from what it was in the June forecast[10]. The new data show that the economy grew by 0.3% in the first quarter, while the statistics available when the June forecast was produced showed a fall of 1.2% in GDP (see Figure B3.1). The technical impact of the change in the first quarter on growth for the whole year 2014 is as much as 1.5 percentage points. The growth forecast for this year is also affected by the carry-over effect from the statistical revision of the

9 For more on the revision see http://www.stat.ee/79711.

10 On 23 September, Eesti Pank published a technical update to the June forecast to take account of the statistical revision of GDP (see http://www.eestipank.ee/en/press/eesti-pank-raised-its-forecast-economic-growth-year-and-lowered-its-forecast-next-year-23092014).

data for 2013[11]. The earlier figure of 0.8% for growth last year was changed to 1.6%, and the upward correction of growth in the fourth quarter raised growth for this year technically by 0.6 percentage point. The effect of this change was reduced by a downward correction to growth in the second quarter of last year. The review of the dynamics of growth for 2013 added a total of 0.4 percentage point to the growth forecast for 2014, and the correction of GDP growth for last year and the first quarter of this together raised the growth forecast for this year by 1.9 percentage points. Economic growth for 2014 has increased by less in this forecast because both export demand and domestic demand have been worse than expected in the second half of the year especially in fixed capital formation.

Figure B3.1. GDP revision

Source: Statistics Estonia

As only the GDP statistics for the first quarter were known at the time the June forecast was written, revision of those statistics will not affect the forecast for growth in 2015 through the carry-over effect. The forecast for 2015 and 2016 is different from what was expected in June because the assumptions about the external environment have changed and data received since then have been more negative than was expected.

11 The carry-over effect is the name for the contribution of quarterly growth in one year to annual growth the next, which arises because annual GDP growth is equal to the weighted sum of quarterly growth (see K.-H. Tödter (2010) How useful is the carry-over effect for short-term economic forecasting? Deutsche Bundesbank Discussion Paper Series 1: Economic Studies).

DOMESTIC DEMAND

Private consumption

Consumer confidence has remained high and domestic demand has been increasing since last year, mostly because of private consumption, while companies are being more cautious in their investment plans. The general government will also inhibit domestic demand, because capital expenditures will fall in the coming years. Corporate investment will increase because of the need to increase production capital and domestic demand growth will accelerate together with external demand growth by the end of the forecast horizon.

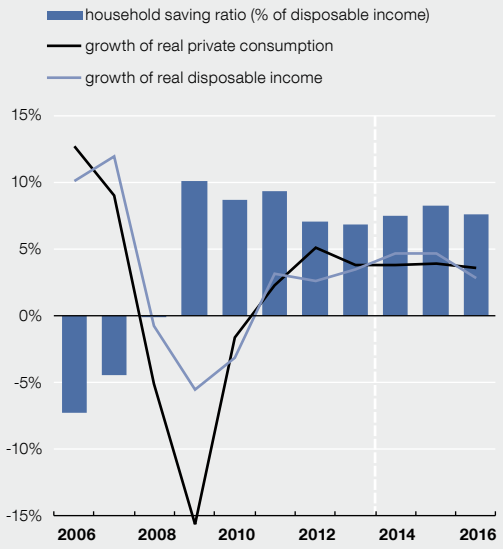
The purchasing power and confidence of Estonian households has improved and so private consumption will remain the main factor supporting economic growth in 2014. As the labour market reacts to changes in the economy with a lag, incomes have continued to rise quickly this year. Low inflation has raised real growth in purchasing power, and according to a survey by the Estonian Institute of Economic Research, Estonian consumers are optimistic about the future. This environment has made it possible for households to increase their consumption

substantially. Consumption grew faster in the first half of this year than the economy did, and did so on a broad base with higher spending on durables and expendables and on services. Monthly data for the retail trade indicate that growth will continue in the second half of the year, and private consumption is forecast to increase by 3.8% for the year as a whole (see Figure 7).

Consumption by Estonian households has grown steadily and households have increased their savings as inflation has fallen. The sharp fall in energy prices at the start of this year has reduced the compulsory expenditure of households, and for example housing expenditure decreased 8% annually in the second quarter. Spending increases were also limited by falling food inflation. The temporary increase in purchasing power caused by low inflation and deflation did not lead to any acceleration of consumption growth as a part of the income growth was saved. The household savings rate is forecast to rise this year to 7.5% of disposable income.

The effect of the factors encouraging consumption growth will remain in the coming years and consumption is expected to grow fast throughout the forecast horizon. Wage growth has slowed this year, but is forecast to pick up in the coming years together with a general increase in economic activity. This will not lead to any slowing in consumption growth for households next year, as disposable income will increase as the income tax rate is lowered and the basic exemption limit raised. Income growth will also be supported by social transfers from the government, particularly a rise in pensions and in child support benefits. In this the government's fiscal measures will offset the slower growth in wages, and so private consumption growth will in fact increase slightly next year and is forecast to reach 3.9%. Private consumption will continue to grow slightly faster than the economy throughout the forecast horizon.

Figure 7. Private consumption



Sources: Statistics Estonia, Eesti Pank

Investment

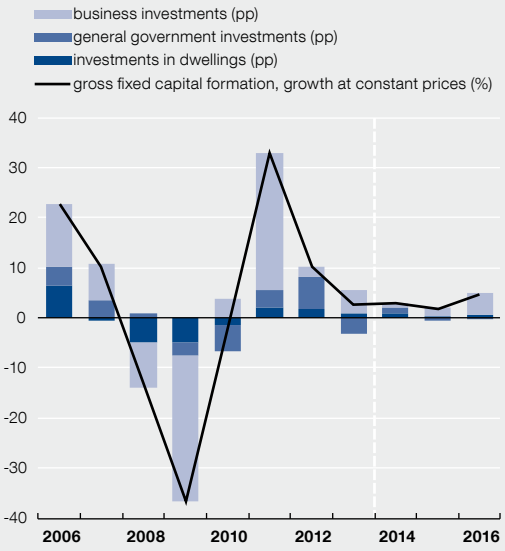
Uncertainty about the future and modest expectations for output are restraining a more rapid recovery in investment growth. Although the share of investment has increased in the economy since the crisis, reaching 27% of GDP in the first half of this year, it is still lower than before the boom. The fall in investment share has come principally from the business sector. This is partly a long-term effect, as the expected growth of Estonia's economy is below what it was in the previous decade, and so the expected return on investment and the need for investment is lower. At the same time there is a short-term impact on investment growth from the weak economic climate and the increased uncertainty, to which can be added the reduction in capital spending by the general government. Fixed capital formation is forecast to increase by 2.8% in 2014, 1.7% in 2015, and 4.7% in 2016, and investment will remain at about 27% of GDP (see Figure 8).

Although corporate investment growth will remain modest in the near future, it will become more broadly based. Growth in corporate investment has been very volatile in recent times and from 2012 until the start of this year investments mostly grew because of investment projects in the energy industry. Total investment by the corporate sector fell in the second quarter of the year as these large projects came to an end, though investment growth was broadly based across other economic activities. A similar change in the structure of investment will be seen in the coming quarters. The fall in imports of capital goods in the second and third quarters indicates that investments in machinery and equipment will not increase this year. There has been some revival in construction though, as confidence and expectations have both been on the rise since the summer in that sector. The weak economic climate and the reduction in investment projects in the energy industry mean that growth in corporate investment is forecast at 1.2 % for this year, but it will start to pick up in the coming years.

Corporate fixed capital formation will increase in 2015–2016 together with production expectations. Production capacity utilisation in industry is at close to 75%, which is as high as the average before the boom, and if the economy continues to grow then companies will need more fixed capital. Interest rates on financing for investments are still low and credit conditions haven't changed. Therefore, growth in corporate investment is forecast to accelerate to 6.7% in 2016.

Investment in dwellings has grown more slowly and growth will remain moderate throughout the forecast horizon. Rapid price rises in recent years have reduced the affordability of dwellings, and growth in household investment decelerated in the second quarter of this year. However, the conditions are good for moderate growth

Figure 8. Gross fixed capital formation



Sources: Statistics Estonia, Eesti Pank

to recover as an increase in the supply of real estate will lower price pressures and continuing wage growth will see demand for new living space recover. Growth in investment in dwellings is forecast to slow temporarily in 2015 and then to pick up again and accelerate to 4.2% in 2016.

General government investment will be held back during the years of the forecast by a temporary fall in European Union transfers. Fixed capital formation by the general government was 7.6% higher in the first quarter of 2014 than a year earlier because of one large project, but the growth dropped off again in the next quarter. General government investment will not increase particularly this year and in the coming years it is more likely to decline. The use of external support will increase slightly next year because the projects of the last budget period will come to an end, but the investments using income from sales of emissions quotas will decrease. The government is planning to use more of its own funds for

investment in 2016, but not enough to offset the temporary reduction in structural funds from the European Union. Larger scale use of funds from the new budget period of the European Union will probably start after the forecast horizon[12].

Inventories

Inventories have not changed significantly as a share of GDP in recent years and the contribution of change in inventories to economic growth will remain modest throughout the forecast period. Inventories increased in 2013 mainly because the turnover of the trade sector increased and so trading companies needed to stock more merchandise purchased for resale. The inventories of the trade sector did not change in the first half of this year as a share of GDP, but manufacturing companies increased their stocks of raw materials. This will continue throughout the years of the forecast because the recovery in external demand will lead manufacturing to increase its share of the economy and inventories will grow as general economic activity revives.

EXTERNAL BALANCE AND COMPETITIVENESS

Estonia's current account had a surplus of 43 million euros in the second quarter of 2014, which was worth 0.9% of the GDP of the quarter. Foreign demand grew unevenly across different markets, and at current prices exports of goods were down 2.5% over the year in the second quarter. Imports of capital goods fell by 3.3%, which was more than exports, because of the reduction in investment activity. This reduced the deficit on the goods account in the second quarter of the year by 0.8 percentage point from a year earlier.

Exports and imports of services continued to grow, with exports of services increasing by 8.6% over the year in the second quarter, and imports by 1.5%. This increased the surplus on the services account by more than one quarter from where it was a year ago. The main sources of the growth in the services surplus were transport services, other business services and tourism services. The surplus on the services account was almost 1.8 times the size of the deficit on the goods account, meaning that the positive balance of goods and services together increased. The current account was negatively affected at the same time by an increase in the deficit on the income accounts. The net outflow of primary income increased mainly because of growth in the income earned in Estonia by foreign direct investors. The causes of the net outflow of secondary income were the smaller take-up of support from the European Union, and increased contributions to the European Union budget.

The positive development of net exports at current prices was supported partly in the second quarter by favourable trading conditions. Export prices for goods and services rose by 0.2% over the year but import prices fell by 1.2%. Adjusting for price changes, net exports had a positive impact worth 1.2 percentage points on real growth in the economy in the second quarter. Real growth in exports of goods and services and a fall in imports each added around 0.6 percentage point.

Assumptions about real demand growth in Estonia's main trading partners have been adjusted downwards for 2014 and 2015. Activity in Estonia's principal target markets for exports is quieter than was previously forecast and demand for imports will grow weakly there. Assumptions for growth in foreign demand at current prices have been adjusted less. The main

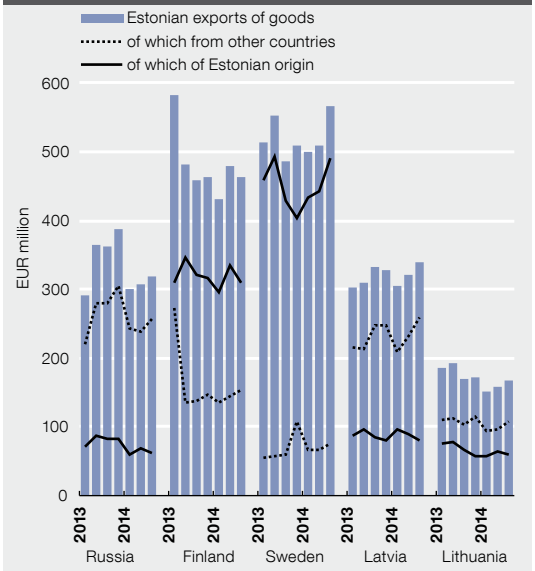
12 Transfers in the previous budget period (2007-2013) also increased sharply in the third fiscal year.

reason for the adjustment was demand in Russia, which will be hindered in the coming quarters by political sanctions, deepening isolation, a rapid depreciation of the rouble and a fall in the price of oil. The political tensions are expected to ease only gradually during the forecast period but the replacement of the Russian market by new markets could improve the outlook for Estonian exports faster.

As the steep depreciation of the Russian rouble reduced the purchasing power of Russian consumers, it led to a fall in competitor's prices in Estonian target markets. Although Estonian export prices did not fall by as much, the transport of goods to Russia was 8.1% smaller in the first nine months of 2014 than a year earlier. The export of goods of Estonian origin was down by 20.5% and exports of goods from other countries were down 4.4%. The data from the first three quarters could be said to show that exports to Russia did not fall because of the sanctions that were introduced in the summer as much as they did because of the depreciation of the rouble since the start of the year, which only worsened slightly during the summer (see Figure 9).

Growth in external demand will start to recover gradually, increasing Estonian exports of goods and services (see Figure 10). Exports of Estonian goods and services at current prices have grown around 1.7 times faster over the past two and a half years than demand in the target markets for exports. This has been aided by rapid growth in volumes and in prices, especially for services. Looking forward, no increase in the market share of exports can be forecast, as growth in Estonian exports at constant prices was lower than growth in external demand for four consecutive quarters from the third quarter of 2013 to the second quarter of 2014. Preliminary data for the third quarter of this year indicate that the market share of exports in the main target markets has

Figure 9. Estonian exports of goods at current prices to main destination countries



Sources: Statistics Estonia, Eesti Pank

Figure 10. External demand growth in the main trading partner countries

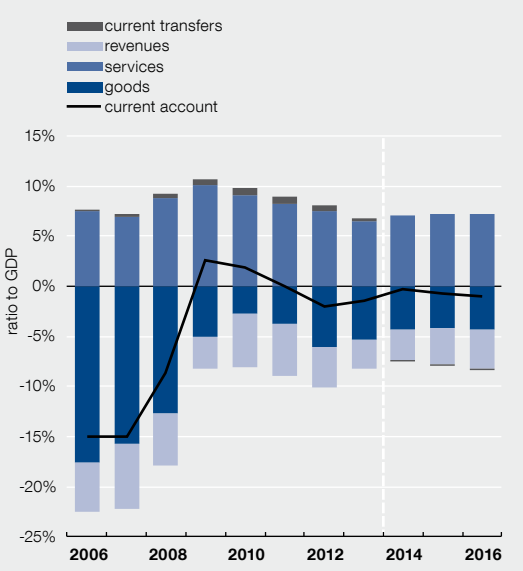
Source: ECB

continued to grow. It is forecast that exports of Estonian goods and services will grow only slightly faster than foreign demand in the coming years. The market share of Estonian exports in the global economy increased by an average of 2.5% a year in 2012-2013. The global market share of Estonian exports in volume of goods and services will not increase during the forecast horizon, as demand will grow in Estonia's target markets more slowly than in the world as a whole.

Slower growth than was previously forecast in exports will lead to a deterioration in the external balance during the years of the forecast. The poor foreign demand unevenly recovering among export markets will above all hinder possible growth in the export of goods, but the export volume growth of goods will still exceed the growth of GDP. Exports of services, which were larger than forecast in the second quarter of the year, will continue to increase slightly faster in nominal terms than exports of goods and the balance of goods and services will remain positive at current prices. Resuming investment activity will increase the growth in imports of capital goods. Imports of goods depend on domestic demand and on developments in exports, and the import content of the domestic demand is forecast to remain at about the same level. The import intensity of total demand will still increase by the end of the forecast horizon with support from accelerating growth in exports and investment.

The forecast expects that net income outflows will increase in the coming years, mainly due to investment income. Because foreigners have larger investments in Estonia than Estonians have abroad, the recovery in profits will push the income account into negative territory. The current account deficit will shrink to 0.3% of GDP in 2014, and will increase slightly in subsequent

Figure 11. Current account



Sources: Statistics Estonia, Eesti Pank

years to close to 1% (see Figure 11). Investment activity will be mild throughout the forecast horizon and this will lower the external debt to GDP ratio. Gross external debt, or the debt of the whole economy, was 18.9 billion euros at the end of the second quarter, or 99% of Estonia's GDP for the year. Gross external debt increased by 1% over the second quarter, mainly because of long-term loans taken by the general government. General government debt accounted for 9% of the gross external debt. Net external debt (debt liabilities minus debt assets) was negative for the seventh consecutive quarter by 1.1 billion euros. Estonia's gross external debt will increase slightly in the next few years but more slowly than nominal GDP, meaning that the external debt to GDP ratio will fall even further over the forecast horizon.

THE LABOUR MARKET

The labour market adjusted partially to the fall in economic activity in the first half of 2014. As expected, the average wage growth slowed as the strong growth in labour costs started to erode the profits of companies. It is forecast that unit labour costs will grow less energetically in the coming years as GDP growth and labour productivity growth both continue to pick up.

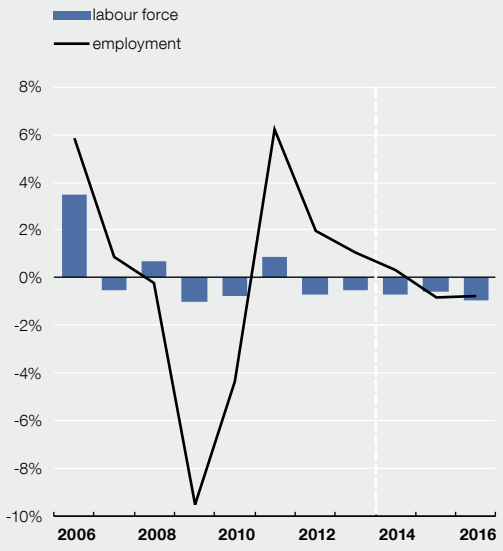
Employment

The Estonian labour force survey shows that as many people were employed in the first three quarters on average as last year. Data from financial statistics of enterprises and tax declarations on the number of employed people receiving a wage show that the number of waged workers increased in the first half of the year. These data are probably affected by the reduction of the role of the shadow economy as employers have had to register all their workers from July and the Tax and Customs Board has increased its checks.

The labour supply is limited by the natural fall in population and by negative net migration, which are bringing the working age population down by around 1% a year. The effect of this will be partially offset until next year by changes in the age structure of the working age population as there will be a rise in the share of working age people in their prime working years, who have a higher participation rate in the labour force. Although the participation rate also rises in the forecast because of the rise in the retirement age, the impact of this is small because it affects only a small percentage of the working age population and the retirement age alone does not determine behaviour in the labour market.

Employment will be the same this year as it was last year, increasing by 0.3%, and it will fall slowly throughout the forecast horizon (see Figure 12).

Figure 12. Labour force and employment growth



Sources: Statistics Estonia, Eesti Pank

At the same time, the employment rate will not change much as employment will decline at a similar rate to the working age population. Faster economic growth is not forecast to lead to an increase in employment or a fall in unemployment, as labour costs have been rising considerably faster than value added in the economy for two years now. Lower profits in the business sector indicate that companies with lower profitability may have difficulties keeping up with wage growth, which could force a reduction in the number of employees. Workers who have lost their jobs at companies with low profitability are not necessarily immediately employable in the jobs being created in companies that are growing.

Demand for labour in sectors that are exposed to foreign competition, especially manufacturing, is affected a great deal by demand in Estonia's main trading partners for Estonian products. Foreign demand is forecast to start recovering, but somewhat more slowly than was forecast in June. Labour productivity in manu-

facturing has grown at below its long-term trend rate throughout the past few years. As wages have risen by a lot, this indicates that there is a great deal of pressure to make production processes more efficient, and companies have invested more in this than they did earlier. This suggests that the recovery in foreign demand will not necessarily lead to an equivalent increase in demand for labour.

Demand for labour in the service sector has been raised in recent years by consistently strong growth in private consumption, which has in turn been supported by strong growth in incomes. Data from the labour force survey show that employment in services grew by 1.1% year-on-year in the first three quarters of 2014. Disposable household income is forecast to increase faster next year temporarily because of a cut in labour taxes and a rise in benefits. This means that slower growth in the average wage will not be accompanied by slower growth in demand for services, and so there will be no fall in demand for labour in the service sector.

General government employment will decline throughout the years of the forecast, which will ensure that public sector's share of employment will not increase as the population shrinks. It is also hard to reconcile the wage expectations of public sector employees with budget restrictions without reducing employee numbers. Data from the Tax and Customs Board show that the number employed in government institutions fell by an average of 0.8% in the first three quarters of this year.

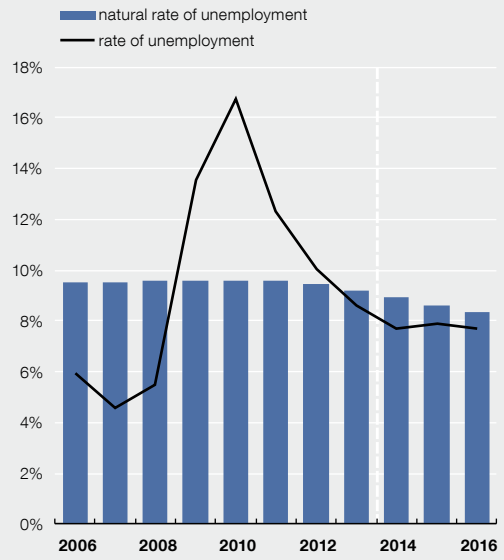
Unemployment

Unemployment fell faster than forecast in the first three quarters of this year and reached a seasonally adjusted 8% in the third quarter and the number registered as unemployed also fell fast during the year. This was probably affected by demand for seasonal workers being higher than usual in the summer months and by structural changes. From May it has no longer been possible for company board members to register themselves as unemployed, and from July it became necessary to register employees from their first day in work.

Rapid growth in the labour share of GDP indicates that unemployment has been below its natural level this year. The long-term unemployed increased as a share of all the unemployed from 40.9% at the end of last year to 43.5% in the third quarter of this year. The large differences in unemployment in different regions and between different education levels, and signals from employers about the difficulty in finding new employees indicate that unemployment is to a large extent structural in nature.

Unemployment is forecast to fall from 8.6% last year to 7.7% this year and will remain at a similar level in 2015–2016 (see Figure 13). As structural

Figure 13. Unemployment



Sources: Statistics Estonia, Eesti Pank

unemployment is reduced by active labour market measures, the gap between the actual and natural unemployment rates will close. The disability pension system reform that will be introduced in 2016 will not yet have had a major impact on unemployment by the end of the forecast horizon because the new rules will only be introduced gradually.

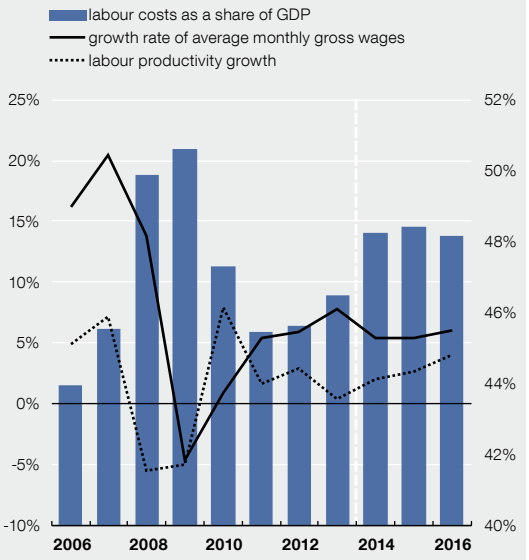
Wages and labour costs

The average gross monthly wage grew markedly more slowly in the second and third quarters of this year, at 4.8% year-on-year in the second quarter and 5.0% in the third. Growth in hourly wages slowed by less, which indicates that the reduction in growth came in bonuses, extra payments and other flexible parts of wages. The payroll grew as fast in terms of GDP in the first half of this year as it did last year, and it continued to increase as a share of value added, which suggests that wages have only partly adjusted so far to slower economic growth.

Average wages will continue to grow more slowly than they did in 2013 throughout the forecast horizon (see Figure 14). As GDP growth is set to be moderate in the years ahead, modest wage growth is needed if profits are to recover in the business sector. Slower growth in wages than before will be offset for households by low consumer price inflation and by a cut in labour taxes next year.

The position of employees in wage negotiations is still bolstered by their ability to go abroad to work. The economy in Finland, the main destination for those who migrate to work, is forecast to grow weakly in the coming years, so demand for labour will not increase and wage growth will remain low. In one way this harms the prospects in Finland for job-seekers from Estonia, but at the same time it may make Finnish companies more interested in recruiting foreign workers with lower reservation wages.

Figure 14. Wages and productivity



Sources: Statistics Estonia, Eesti Pank

Several factors will increase wage pressures during the forecast horizon. The minimum wage will rise by 9.9% in 2015 and it will probably continue to rise at a similar rate in subsequent years. The contribution of the rise in the minimum wage to that in the average wage has been a minor one so far, as the minimum wage is low relative to the average wage and only a small proportion of waged employees are directly affected by it. This will increase during the years of the forecast. Wage rises have already been agreed for education staff next year, as has a rise in the minimum hourly wage for employees in the health sector.

The revised statistics for the national accounts show that the fastest growth of 8.8% over the year in unit labour costs was seen in the first quarter. Unit labour costs grew at a slower 5.6%

in the second quarter, and growth is forecast to remain at about that rate in the second half of the year. Labour productivity will grow faster in the coming years as economic growth recovers, but as wages will at first rise by less than before, unit labour costs will grow more slowly (see Box 4 for analysis of the factors in labour productivity growth). The payroll will not shrink as a share of value added, having increased in recent years, meaning that the position of employees in wage negotiations has improved consistently (see Box 5 for the reasons for the increase in labour costs as a share of GDP).

Box 4: The sources of changes in the labour productivity of Estonian companies

The productivity of Estonian companies rose strongly when the economy was growing rapidly before the crisis that began in 2008, fell during the subsequent recession, and then turned again to start growing more slowly than before the crisis. The reason most commonly given for why growth has been less strong in recent years is that external demand has been weak, but it has also been suggested that the productivity of labour has hit a glass ceiling.

This box looks at the company-level factors behind the changes in the productivity of Estonian labour measured as value added per employee at constant prices. There are three components in the changes to labour productivity: within effects, between effects and covariance effects. The within effect shows how much of the change in labour productivity comes from changes in the productivity of the company while the company's market share doesn't change. So if the market shares of all the companies in a particular industry remain unchanged for two years, then adding the productivity growth of each company within the industry will give the increase in productivity for the whole industry. The between effect shows how resources are moved around between companies. The contribution of this component to the change in productivity of an industry is positive if the companies within that industry with higher productivity increase their market share. The faster the more productive companies within an industry increase their market share and the faster the less productive lose theirs, the larger the positive contribution from the between effect to productivity growth. The covariance effect shows the dynamic reallocation of resources between companies and shows the contribution to changes in productivity from parallel changes in company size and productivity. The contribution of this component to productivity growth is positive if the productivity of companies increases at the same time as their market share.

The productivity for each industry can be decomposed into the three components [13]:

$$\Delta y_{st} = \sum_{i \in C} \theta_{it-k} \Delta \omega_{it} + \sum_{i \in C} (\omega_{i,t-k} - \widehat{\omega_{st-k}}) \Delta \theta_{it} + \sum_{i \in C} \Delta \theta_{it} \, \Delta \omega_{it}$$

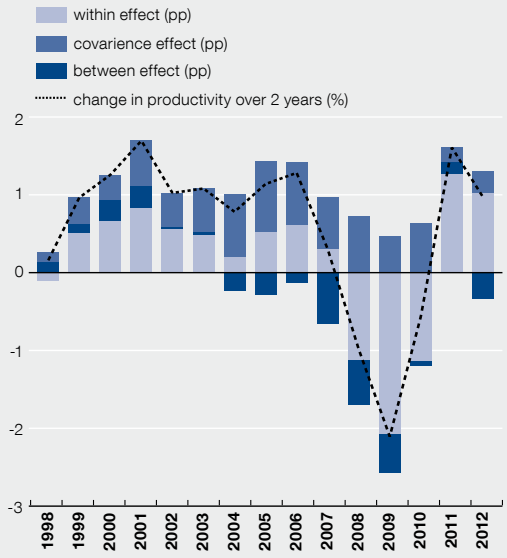
where Δy_{st} shows the change in productivity of the industry over two years, meaning that k=2. θ_{it} is

13 For more details see Foster, L., Haltiwanger, J., Krizan, C., J (2001) Aggregate Productivity Growth: Lessons from Microeconomic Evidence. Dean, E., Harper, M., Hulten, C. (Ed.) New Developments in Productivity Analysis, University of Chicago Press, Chicago, 303–372. Eesti Pank (2014) Estonian Competitiveness Report 2014. Lopez-Garcia et al (2014) Micro-Based Evidence of EU Competitiveness: The CompNet Database, ECB Working Paper No 1634.

the share of company i in the value added of the industry at time t and ω_{it} is the productivity of company i at time t and $\widehat{\omega_{st}}$ is the weighted average productivity of a company in industry s. Industry s is identified using the two-digit NACE code. The analysis covers 55 industries, taking in most of the companies in Estonia and leaving out only the primary sector, financial intermediation and activities that are traditionally in the public sector. C is the stock of continuing companies. As the analysis covers companies that are in operation for two years, not all the changes in the productivity of labour can be put down only to those companies. To simplify the presentation, the results of the whole country together are found as the weighted average effect at industry level from their contribution to value added. To remove the effect of abnormally large changes like a large company changing industry, the largest and smallest 5% of the results for the effect in each industry are removed for each year.

Figure B4.1 shows the contribution of the three components to changes in the productivity of Estonian labour. The results fit in with those of earlier studies[14] in that over the years the biggest contribution to increased labour productivity in the economy as a whole has come from increased labour productivity within companies. The contribution of the components has been different at different stages of the economic cycle. When the economy was growing fast in 2000–2006, the largest part of the change in the productivity of Estonian labour at between 40% and 70% came from the between and covariance effects. The largest part of this was the covariance effect, where the market share of companies with faster productivity growth grew faster. The major contribution from the between and covariance effects is an indicator of major structural changes in those years, and also of efficiency in the economic environment and of the ability of the labour market to reposition employees and bring in new ones. The major contribution from the reallocation of resources to productivity growth was aided by low costs for hiring and firing[15] and also by an efficient business environment where production factors were rapidly redirected from companies with low productivity to companies with high productivity.

Figure B4.1. The contribution of components to changes in the productivity of the Estonian labour force at the company level



Sources: Estonian commercial register, Eesti Pank calculations using the CompNet methodology

14 See for example Bartelsman, E., Haltiwanger, J., Scarpetta, S. (2009) Measuring and Analyzing Cross-Country Differences in Firm Dynamics. Dunne, T., Jensen, J B., Roberts, M. J. (Ed.) Producer Dynamics: New Evidence from Micro Data, University of Chicago Press, Chicago, 15–76.

15 Haltiwanger, J., Scarpetta, S., Schweiger, H. (2014) Cross country differences in job reallocation: The role of industry, firm size and regulations, Labour Economics, 26, 11–25.

When the global crisis hit, the productivity of Estonian labour fell mainly because of internal company effects. This is a sign of the broad negative impact of the crisis on most businesses. Both domestic and external demand fell, leading to a fall in turnover and value added, though at the same time the number of employees was reduced by relatively little and value added per employee fell. The contribution of the between effect had already become negative before the crisis, meaning that the companies within an industry with the highest productivity lost market share. One reason for this may have been the relatively slow growth of exporting companies with high productivity before and during the crisis. The contribution of the covariance effect to the productivity of Estonian labour has always remained positive throughout the period, even during the recession.

The contribution of the reallocation of resources to the changes in labour productivity fell during the 15 years from 1998 to 2012. This is partly to be expected because of Estonia's converging economy, as most companies were still young a decade ago and market shares were regularly redistributed. At the same time it could be a sign of danger that the major growth in productivity from the reallocation of resources came only at the time the economy was growing rapidly and not during the recovery, when less productive companies might have been expected to exit the market. The resource reallocation effect might also have been lessened by the development of the labour market. Although the costs of hiring and firing employees are apparently low in Estonia, this does not necessarily mean that the actual costs of finding employees or of redundancies are really so low. As it is hard to find qualified new staff, redundancies are avoided during temporary difficulties, and finding new employees takes time when demand is growing.

This analysis has not looked at the entry of new companies and the exit of established ones. It is possible that the result of a crisis as deep as that of 2008 was that a lot of the reallocation of resources came from the entry and exit of companies and to a lesser extent from the reallocation between continuing companies.

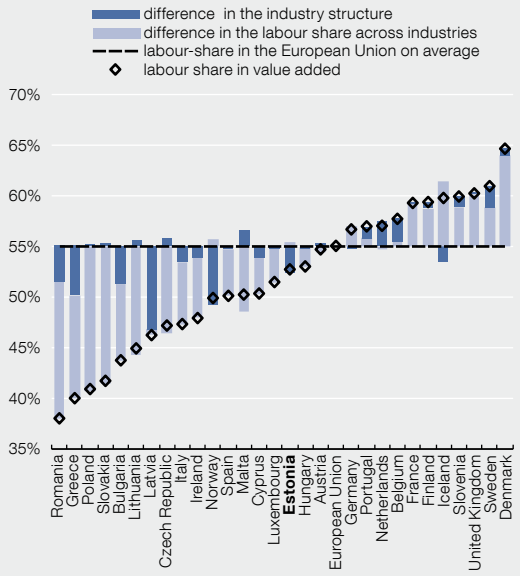
Box 5: The labour intensiveness of the Estonian economy in international comparison

Labour costs[16] have increased rapidly as a share of GDP in Estonia in recent years. Wages rose faster than productivity in 2013 and real unit labour costs rose by 2.2%, so labour costs increased as a share of the economy at the expense of capital income. These trends have continued in 2014 and this poses the question of whether the large share of labour costs is sustainable or will reduce the competitiveness and potential growth of the economy.

Labour costs can change as a share of value added for both structural and cyclical reasons. Labour income usually increases as a share when an economy is shrinking because employment contracts are fixed and wages must be paid as production declines even if the employer

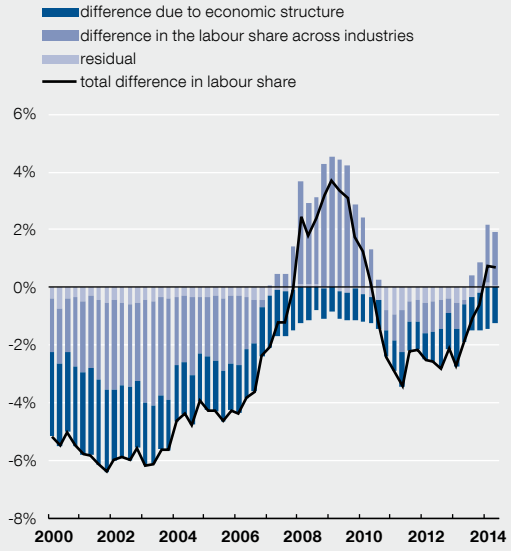
16 Labour costs in this box refer to the payroll for the entire economy, which includes both wages and labour taxes.

Figure B5.1. Differences in the labour share in the EU



Sources: Eurostat, Eesti Pank

Figure B5.2. Difference in labour share of Estonia compared with the European Union average



Sources: Eurostat, Eesti Pank

is making a loss. For structural reasons it could be that labour costs increase as a share when an economy is changing to use human capital resources more intensively, by increasing the prominence of business services for example. However, some changes in the structure of the sectors in an economy may be cyclical rather than permanent, so a credit boom may lead the construction sector to grow, while private companies may fall into difficulties during a recession and so the public sector increases its share. In addition to other factors, wage pressures from the Nordic countries have affected the rise in wage income as a share of the economy, and this is probably a long-term effect.

Labour costs as a share of value added in Estonia have been below the European Union average (see Figure B5.1). This raises the question of whether labour costs have managed to increase proportionally without harming competitiveness. Although the European Commission survey of industrial companies shows that the competitiveness of Estonian companies in foreign markets has remained stable this year, their competitiveness has grown more slowly over a longer term. Over the years there is a clear negative link between improved competitiveness and higher labour costs.

Decomposing the share of labour costs in the whole economy into 64 sectors shows that labour costs in Estonia were mainly below the European Union average in 2011 because of the structure of the economy. The role played in the economy by sectors with a high share of labour costs was smaller in Estonia than the European Union average. The share of labour

costs varies quite a lot across European countries and the differences in the structure of the economies explain only a fairly small part of that. Labour costs are a noticeably smaller share of value added in Latvia and Lithuania than in Estonia but in Finland and Scandinavia they are larger. Their share is above the European Union average in Finland and Sweden mainly because the share of labour costs is generally different within each sector, not because the structure of the economy is different.

Labour costs as a share of value added in Estonia have approached the European Union average (see Figure B5.1). The quarterly GDP by production approach using ten sectors indicates that the change in the structure of the economy has played only a small role in the change in the share of labour income, and the increase in the share of labour income has been broadly based across sectors[17]. The share of labour costs increased in Estonia during the economic crisis faster than the European Union average because of the sectoral effect, which reflects the fall in profits during the steep recession (see Figure B5.2). At the same time the structure of the economy affected the change in the share of labour costs, as the role of the public sector increased, where labour resources are used more intensively than the average.

Labour costs increased very fast as a share of the economy in 2013 and early 2014. This was aided by a broad change in the share of labour costs across sectors, not by a change in the structure of the sectors. The increase in the share of labour costs does not necessarily indicate the economy is using human resources more intensively. The share of labour costs has become bigger in Estonia than the European Union average for similar sectors, which means that profitability has fallen and competitiveness may also have done so.

17 The lack of detail means there is a risk of underestimating the effect of structural changes and the results are not directly comparable with those from the 64 sectors.

INFLATION

Inflation started to decelerate in the second half of 2013 and consumer prices started to fall from June 2014. There were several reasons why prices fell, but the main one was the drop in the price of energy. Lower inflation was mainly due to the fall of oil prices but was also encouraged by cheaper food prices on global markets Core inflation, which covers manufactured goods and services, decelerated steadily as prices of imports dropped.

On the demand side it was weak external demand that held inflation back, but on the supply side there was a rapid rise in labour costs for companies at the same time. As costs to companies have grown faster than prices for three years now, the mark-ups of companies have fallen, doing so by 3.3% this year. The slowing of growth in the GDP deflator in the first half of the year indicates that the ability of companies to pass rising labour costs on into prices has diminished. As a result the GDP deflator will grow more slowly than before throughout the forecast period and will stand at 2.5% (see Figure 15).

Inflation will remain lower than the long-term average in Estonia and will be 0.8% in 2015 and 2.1% in 2016. Consumer prices will start to grow faster in the first half of 2015 as energy prices stop falling and food prices rise slightly from the low reference base. Core inflation will remain low

in the first half of next year as wages growth has moderated and prices continue to fall for education and communications. The forecast for inflation is lower than it was in June mainly because prices of imported energy are expected to be low, and also because of the low forecast for services inflation.

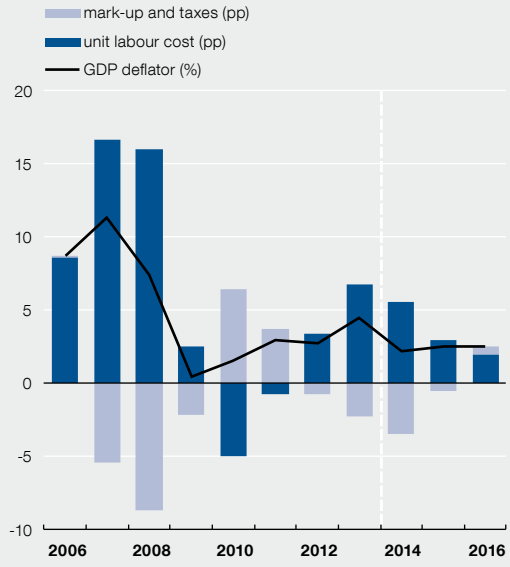
The impact of tax rises and regulated prices on inflation will increase in the coming years. Consumer prices will be raised by 0.2 percentage point this year because of the rise in excise, and the impact will be about 0.5 percentage point per year over the whole of the forecast period (see Figure 16). Inflation has earlier been held up by the opening of the regulated electricity market and the electricity price will continue to rise in the years of the forecast in part because of rises in the state-regulated prices of the distribution networks.

The Harmonised Index of Consumer Prices (HICP) includes consumption by households and also consumption by tourists, which means that core inflation has more weight in the harmonised consumer basket than it has in the national Consumer Price Index (CPI), but the weights of energy and food are smaller. As energy prices have been falling in 2014 while tourism services have again increased rapidly in price, the HICP has risen faster than the CPI. The difference between the HICP and the CPI was its largest ever in the first half of 2014 at 0.6 percentage point but it will narrow over the forecast period.

Food

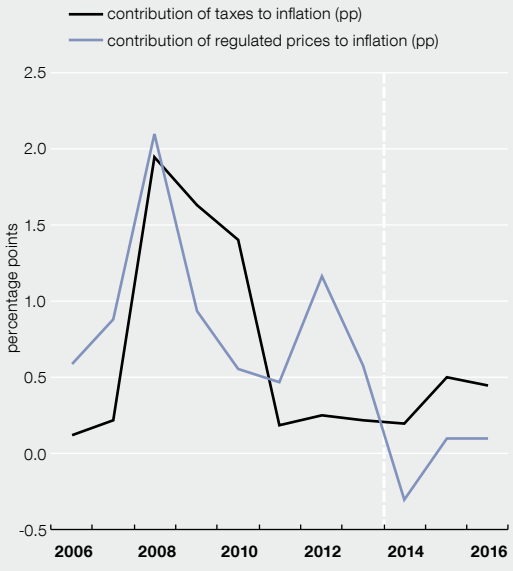
Food price inflation is mainly affected by price movements on foreign markets and tax rises. Lower food inflation in the second half of this year was in line with trends in the global market. Prices for European agricultural produce will remain low next year too, but they will rise in

Figure 15. Composition of GDP deflator growth



Sources: Statistics Estonia, Eesti Pank

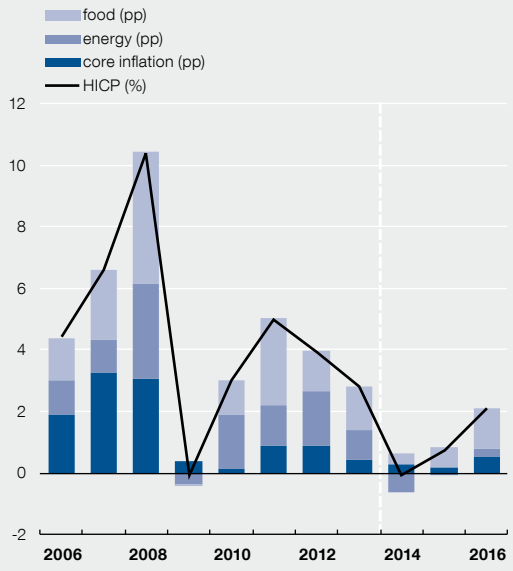
Figure 16. Tax changes and regulated prices



Sources: Statistics Estonia, Eesti Pank

2016. Some of the fall in prices in 2015 may be caused by the closure of the Russian market because of import restrictions. If new markets are not found, Russian import restrictions could lead to oversupply in the markets of the European Union. Agricultural policy will only ease the export difficulties for producers temporarily. How much the Russian sanctions affect consumer prices will become clearer in the first half of next year. Current data indicate a fall in the farm-gate prices of milk and meat, but this has only passed into consumer prices to a small extent. Rises in excise on alcohol and tobacco will lift food price inflation by 2 percentage points in the coming years, accounting for the majority of the rise in food prices.

Figure 17. CPI growth



Sources: Statistics Estonia, Eesti Pank

Energy

Energy consumed by households fell in price by 3.8% in the first half of this year, and this was the main cause of the slowing of inflation. Energy prices fell across the board, with prices down for heat energy, motor fuels and electricity. Prices for motor fuels fell 2.5% in the first half of the year as crude oil prices fell by almost 20% on global markets in dollar terms, though the fall in euros was smaller as the euro exchange depreciated by 7% at the same time. Markets still expect that the oil price is more likely to rise in 2015, and so the contribution of energy to inflation will increase in future (see Figure 17).

The price of electricity has been volatile in recent years, climbing 29% last year when the electricity market opened, because production capacity in the Baltic states was limited but there were not enough electrical connections to the Nordic countries. A new undersea cable was energised at the start of this year, increasing the transmission capacity and bringing consumer prices for electricity down by 6% in the first half of this year. Forward transactions for electricity indicate that the price of electricity will rise slightly on the Nordic power exchange throughout the forecast horizon.

Production of heat in Estonia mainly uses imported natural gas and the gas price is dictated by changes in the price of heating oil on global markets during the previous three quarters and by the exchange rate. Recent falls in prices of crude oil and heating oil are forecast to pass into consumer prices for heat in the first half of next year.

Core inflation

Core inflation declined in the second half of 2014 because of falls in the prices of manufactured goods and lower inflation for services (see Box 6 for the reasons for the slowing of core inflation). Core inflation will be low throughout the forecast horizon, mainly because prices will continue to rise slowly for services. Service price inflation next year will fall from 1.1% to 0.8% as

smaller wage rises encourage lower growth in prices. The main driver of higher prices for services since 2011 has been rising rents, which have gone up by more than 10% each year. As the real estate market has adjusted, so the rise in rents slowed in the fourth quarter of this year.

The effect of free higher education will endure throughout 2014–2016 and will take more than 1 percentage point off service price inflation. Services inflation has been held down in recent years by falling prices for communications but these prices fell somewhat less this year. The profitability of communications companies remains above the average for the economy though, indicating that prices may fall further during the forecast years. Manufactured goods where prices fell in the first half of the year were cars and household electronics, but inflation was also unusually low for clothes and footwear. Import prices for manufactured goods will rise during the forecast horizon, raising consumer price inflation.

Box 6: The slowing of Estonian core inflation in connection with the economic cycle

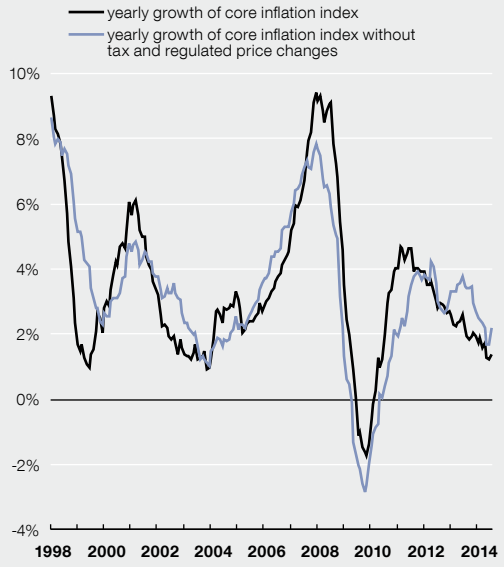
Core inflation[18] shows the change in the price of the consumer basket without energy, food, alcohol and tobacco. Core inflation reflects about half of the total price change in the consumer basket, of which 48% comes from services and 52% from manufactured goods. Food and energy prices are very volatile, and depend on the weather and on commodity prices that can change quickly. Increases in prices for services and manufactured goods reflect the state of the economy more directly through the relation between demand and supply, and changes in production costs. Core inflation in Estonia has fallen considerably in the past three years, despite strong wage growth. This box looks at the main factors driving core inflation in Estonia in 1998–2014 and focuses particularly on the ability of those factors to explain the recent fall in core inflation.

The fall in core inflation becomes even sharper if the effect of tax changes and administrative prices is stripped out, which is principally the change to make public transport and higher education free (see Figure B6.1). The cyclical change in inflation is usually analysed with the Phillips curve, which in its simplest form relates inflation to the labour market conditions, or more precisely to unemployment. The Phillips curve shows a negative relationship between unemployment and inflation, as a lower unemployment rate leads to higher wage growth through labour shortages, and this in turn pushes up consumer price inflation because of the faster rise in labour costs. Although the unemployment rate has halved in the past four years and wages have risen fast, core inflation in Estonia has fallen, which means that the Phillips curve has shifted to the left (see Figure B6.2).

Equations based on the logic of the Phillips curve are widely used in explaining and forecasting the inflation cycle. This analysis uses the classical Phillips curve equation, in which the relation between core inflation and four indicators of the economic cycle is econometrically estimated.

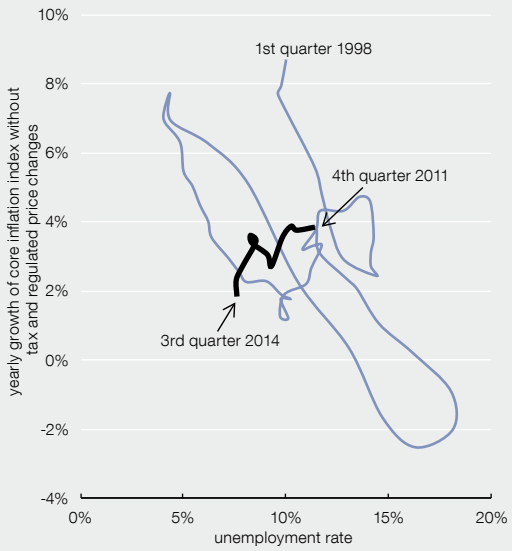
18 This box uses core inflation based on the harmonised index of consumer prices

Figure B6.1. Core inflation



Sources: Eesti Pank, Eurostat

Figure B6.2. Phillips curve



Source: Statistics Estonia

The four indicators are the real output gap, the wage gap, cyclical changes in energy prices and cyclical variations in import prices. The equation used for the Phillips curve in this analysis is linear:

$$\pi_t = c + \rho\pi_{t-1} + \beta_1\widehat{GDP_t} + \beta_2\widehat{wage_t} + \beta_3\widehat{energy_t} + \beta_4\widehat{imports_t}.$$

Core inflation is represented by π_t and π_{t-1} on the right hand side of the equation describes the inflation expectations based on the past value. The output gap $\widehat{GDP_t}$ is obtained by removing the trend from the level of real per capita GDP, and the wage gap $\widehat{wage_t}$ is found by removing the trend from the real wage base index. Cyclical changes in energy prices $\widehat{energy_t}$ are given by the annual price rises in one-month oil futures in euros, and the import price cycle $\widehat{imports_t}$comes from the annual rise in the Estonian import deflator, and in both cases the average value for each series is subtracted. The Phillips curve equation is estimated using the monthly data for core inflation stripped of the effect of taxes and administrative prices. Inflation for communications services is also removed from core inflation, as the fall in prices of communications services in recent years has mainly been due to technological advances rather than to the economic cycle. The total contribution of cyclical factors to core inflation is shown in Figure B6.3.

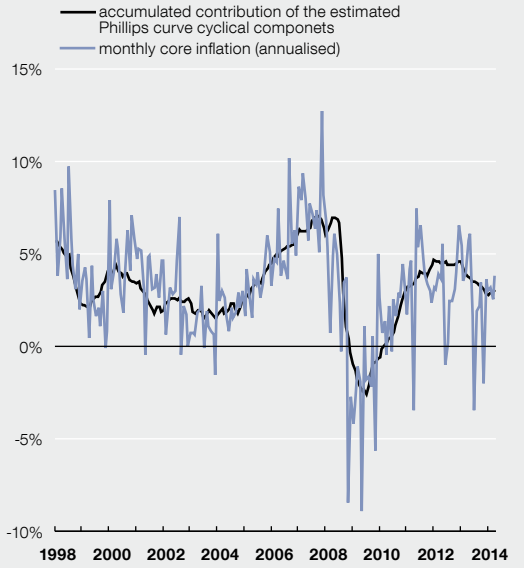
The total contribution of the cyclical factors in the Phillips curve explains about 45% of the volatility in monthly core inflation in 1998–2014. All of the factors in the equation except the real wage gap are statistically significant during the whole period. The cyclical factors in the Phillips curve have moved downwards in 2011–2014, which fits in with the slowing trend in core inflation. A major part of the downward trend in core inflation is explained by the cyclical decline in

import prices and energy prices. However, the Phillips curve equation is not able to describe the fall in core inflation in Estonia in full, especially for the past year and a half.

The last decade has seen the global financial crisis, the euro area debt crisis and slower economic growth in recent years, and all of these circumstances may have affected core inflation and the relationships and the strength of those relationships between the cyclical variables that describe it. To capture these changes the equation shown earlier is estimated recursively, which means the coefficients c, ρ, β_1, β_2, β_3 and β_4 are estimated repeatedly, extending the estimation period by one month from the beginning of 2005. Recursive estimation results show that the contribution of energy prices to the cyclical changes in core inflation in Estonia have increased in recent times, while the contribution of import prices and real wages has fallen. The role of the output gap has stabilised at close to its long-term value after fluctuating a great deal during the crisis.

The ability of the Phillips curve to explain the fall in core inflation in Estonia in the past three years using the usual cyclical factors is considerable, but inflation still remains below the level predicted by the equation. That gap is most probably related to companies cutting their price margins, which has been caused by finding the balance between the rapid rise in labour costs and the need to maintain price competitiveness. The increased contribution of the cyclical change in energy prices to consumer prices stands out in the equation, while import prices and real wages have become less important as factors in explaining inflation.

Figure B6.3. Phillips curve and inflation dynamics



Sources: Statistics Estonia, Eesti Pank

GENERAL GOVERNMENT FINANCES

The Estonian government's expenditures have exceeded revenues in recent years, but this has been because of large one-off transactions and the weak economic climate. The budget for the general government is forecast to be in deficit again in 2014–2016, even though the effect of the economic cycle on revenues will turn positive, making it easier to achieve nominal balance. Eesti Pank estimates the structural budget position will be negative as a result[19].

19 The structural fiscal position of the general government is found by subtracting the effect of the business cycle and one-off and temporary factors from the nominal position, as these could distort the fiscal position in the short term without affecting the sustainability of government finance in the longer term.

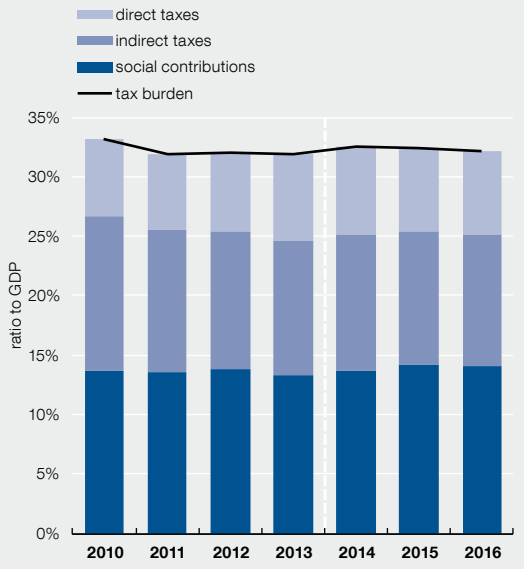
Budget revenue

The structure of economic growth favoured growth in tax revenues in 2013, but the tax burden didn't rise and stayed at 32% of GDP (see Figure 18). Compensation for employees grew faster and so revenues from labour taxes did the same. Consumption continued its rapid growth as well, but revenues from taxes on products were below expectations. The main cause of this was tax evasion, which meant that VAT revenues grew much more slowly than the estimated revenue base. At the same time the tax burden was reduced by a cut in the rate of unemployment insurance.

Tax revenues in the first ten months of 2014 show revenue growth to have been much larger than was forecast in June. The biggest difference is in VAT, which grew by almost 8% from the same time a year earlier with reduced tax evasion an important factor[20]. Revenues from labour taxes have also been much larger because the compensation of employees has grown faster than expected. Revenues from social tax will be affected in accounting terms in 2014–2017 by the additional payments by the government into the second pillar pension fund, which will reduce budget revenues. The tax burden is forecast to rise in 2014 by 0.6 percentage point of GDP.

Several tax policy measures will come into effect in 2015–2016 with a combined neutral impact on the budget. The government will continue to shift the tax burden from income to consumption during the years of the forecast, with the aim of improving the business climate in Estonia and guiding consumption behaviour. Next year income tax will be cut, the basic exemption limit will be raised and the unemployment insurance rate will be lowered, while excise taxes on alcohol, tobacco and fuels will be raised. Tax exemptions will be reduced and tax evasion addressed as well. As the structure of the economy will change slightly in the coming years and labour costs will grow more slowly, the tax burden will fall back to 32% of GDP by the forecast horizon.

Figure 18. Tax burden



Sources: Statistics Estonia, Eesti Pank

Budget expenditure

Growth in general government expenditure slowed sharply last year as the large investment projects funded by sales of emissions quotas started to come to an end and the use of EU funds declined. As a result the government's capital expenditure dropped by more than 6%. General government labour costs rose at the same time and did so by notably more than those in the private sector[21]. Labour costs were higher mainly because of the wage agreements in health and education, but wages also rose for other jobs too.

20 Summer 2014 Macroeconomic Forecast of the Ministry of Finance of Estonia, pp 41–42.

21 1.5 percentage points of the 9.1% wage growth comes from a reclassification of institutional sectors.

Tax and Customs Board monthly data indicate that rapid wage growth has continued in 2014. This means that the compensation of employees continues to make the largest contribution to the growth in total expenditure, even though the number of employees has fallen. Data for the first half of the year show this has been offset by more modest growth in intermediate consumption. The average wage in the general government sector has remained below the pre-crisis level average wage in the economy, despite the rapid growth in 2013 and 2014.

Social payments are forecast to increase as a share of government spending in the next two years, reaching 33% in 2016. This will be caused by a rise in benefits in 2015, which will be worth almost 0.4% of GDP. Growth in social spending will be restrained at the same time by slower growth in pensions because the average pension is indexed and the size of the index will be affected in the years of the forecast by low inflation and slow growth in labour costs.

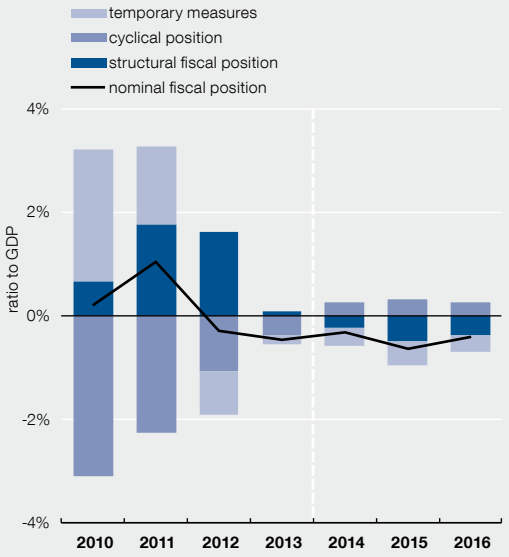
General government expenditure in 2015–2016 will be affected by a reduction in investment. The investment activity of the Estonian general government has largely depended on the availability of foreign support and financing. Estonia is one of the most efficient users of structural funds in the European Union, and this together with the investments made using funds received from selling emissions quotas has allowed the government to increase economic growth without damaging the structural budget position. Estonian general government investment was one of the largest in the European Union last year as a ratio to GDP. However, the income from sales of emissions quotas has fallen and the European Union has ended one budget period and started another, reducing foreign support temporarily, and so the main contribution to government investment growth in the years of the forecast will come from the state budget and the use of other government funds.

The fiscal position and debt

The fiscal position of the Estonian general government sector has been quite inconstant in recent years. This is partly because economic growth has been variable too and has remained below its potential, but also because government revenues and spending have been affected a lot by large temporary transactions and measures. As a result general government spending exceeded revenues last year and the budget deficit increased to 0.5% of GDP, but the budget stayed in structural surplus (see Figure 19).

The environment the budget is set in will change during the years of the forecast. Although the combined impact of one-off measures on the fiscal position will be slightly larger than it was last year, the volatility caused by them in expenditure and revenues will be reduced. The impact

Figure 19. General government fiscal position



Sources: Statistics Estonia, Eesti Pank

of the economic cycle on budget revenues will improve at the same time and will become positive this year even though the output gap will remain negative throughout the forecast horizon.

The nominal budget deficit is forecast to shrink to 0.3% of GDP in 2014 as tax revenues prove larger than expected, and to deepen in 2015 when tax policy measures are applied and social transfers increase. The forecast for expenditures in 2016 includes government plans for investment and the indexing of pensions. Pensions will fall as a share of GDP and so it is forecast there will be some slight improvement in the government budget position[22]. While the forecast for economic growth has been revised downwards for the coming years, the increase in the effective tax rate this year will continue into the coming years, and so there is no significant change from the estimated fiscal position for 2015 and 2016 that was forecast in June.

The government budget will fall into structural deficit in 2014, which will worsen further next year. Consumption and labour costs have grown faster than GDP in recent years and they will already be above their trend volume in 2014. This will turn the cyclical component of the budget positive and it will remain positive throughout the forecast horizon[23]. The structural fiscal position will still be smaller in 2014–2016 than the nominal position because the nominal position is affected by temporary revenue and spending measures that increase the deficit but do not affect the sustainability of general government finances over the longer term.

22 It is assumed that policy will remain unchanged for other expenditure items.

23 The methodology used by the European System of Central Banks and Eesti Pank for calculating the cyclical components of the budget uses the tax base, not the aggregated output gap development. This means that there may be discrepancies between different estimates of structural balance.

The debt burden of the Estonian government reached 10.1% of GDP last year and will remain around there throughout the forecast horizon. As the central government deficit has been financed from reserves so far, the debt burden of the Estonian general government has mainly been raised by participation in the ESFS and by borrowing by local governments. These same factors will affect the debt burden in 2014 and 2015, though the debt will grow by less than the nominal growth of the economy and so the debt burden will fall. If the budget is again in deficit in 2016, the central government may have to start using external sources of funding.

THE BANKING SECTOR AND THE FINANCING OF THE ECONOMY

Lending conditions will remain favourable throughout the forecast horizon, the financial standing of companies and households will be good, and loan growth will be moderate. The financial position of banks and their funding are also good and should not restrict lending in any significant way. Lending conditions will not change significantly during the forecast horizon and interest rates will continue to favour borrowers in future. The financial position of companies is strong, although weak demand and uncertainty about economic growth have made them cautious about investment. Investments are being made more to improve efficiency than to expand activities. Demand for credit from households will continue to grow stably, and the stock of both housing loans and consumption loans will grow gradually faster during the forecast horizon. There will be an adjustment in the real estate market and price growth will slow.

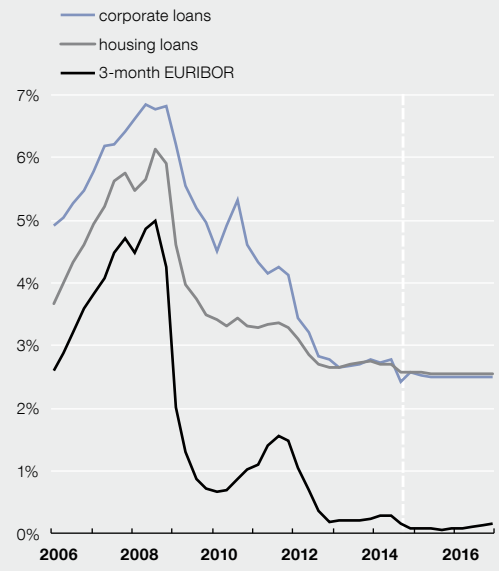
Lending

The good financial standing of the banks operating in Estonia and favourable funding conditions will support the supply of credit. The banks

in Estonia are well capitalised and are among the most profitable in international comparison. Deposits from the non-financial sector were 9.3% larger in October this year than a year earlier and were growing faster than before. The growth in deposits means that banks are funding themselves ever more with domestic deposits. Annual growth in private sector deposits will remain at around 6% throughout the forecast horizon, and the funding conditions for the banks will remain favourable. Household deposits will grow more slowly in the next two years as income growth slows. The growth rate of corporate deposits will also slow, as higher labour costs and weak foreign demand have reduced the profitability of companies.

Lending conditions will change little in the years ahead. The interbank EURIBOR interest rate, which serves as the base rate for the majority of Estonian loan contracts, is very low and the forecast assumes it will remain low going forward (see Figure 20). Competition between banks for market share will remain moderate and so they will keep their lending conditions conservative. Interest margins and loan conditions for both companies and private individuals have remained unchanged in recent years, and they will not change much during the forecast horizon.

Figure 20. Lending rates



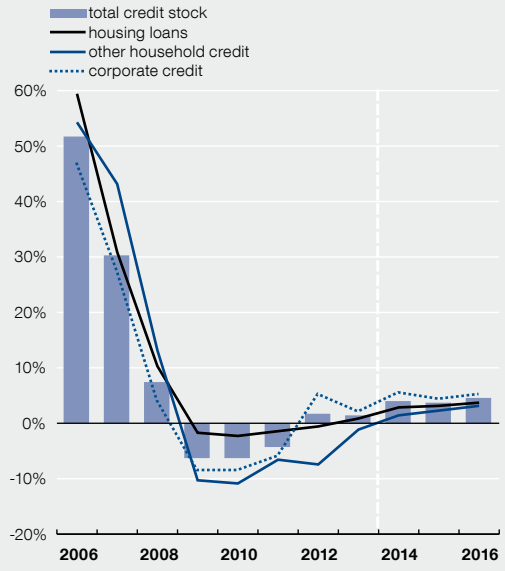
Sources: Eesti Pank, European Central Bank

Credit demand

The need of companies for external capital will remain small because investment activity is low. Weak demand and relatively fast growth in labour costs have meant that companies have invested principally in raising efficiency and not so much in expanding production or activities. As a lot of the investment can be made using the funds the companies already have, the demand for external capital, including bank loans, remains small.

Corporate demand for credit will be moderate in the years to come. Growth in corporate credit has been somewhat faster than was forecast in June, and was at the same rate as GDP growth. Credit growth has particularly been above average for real estate, manufacturing and agricultural companies. The corporate credit portfolio will continue to grow in future, but the growth may be slightly slower next year in sectors that have already grown strongly. Current investment projects in agriculture will be continued, but companies and banks will be more cautious about new investment. Loan volumes in real estate and construction may be reduced next year as large office and retail spaces become ready, as there will be less need for more space of the same type to be built. Construction volumes for residential real estate and the associated need for lending will start to increase slightly in the second half of the forecast period. The corporate loan stock will grow by 5% in the coming years (see Figure 21). Credit growth will slow a little in 2015, but lower uncertainty and new investment will see it pick up again in 2016.

Figure 21. Credit stock growth



Source: Eesti Pank

Household credit will continue to grow in the years ahead for both housing loans and other loans. Households took out 9% more new loans and leases in the third quarter of the year than they did a year earlier as 18% more housing loans were granted and 2% more other loans to households. Repayment of earlier loans means that the stock of household loans grew only a little, increasing by 2% over the year to the end of September. Demand from households for housing loans will rise during the forecast horizon and more will be granted. Real estate prices have been rising more slowly since the second quarter and in future they will not rise as fast as before, so the volume of new housing loans will grow more slowly than earlier. Growth in other household loans will also be moderate moving forwards. Household borrowing activity will be built on three main supports during the forecast period, which are higher incomes, improved financial standing and low interest rates. The loan stock of households will continue to grow more slowly than incomes or nominal GDP and the debt burden of private individuals will fall throughout the forecast horizon.

Price rises for residential real estate will be more modest than before in the coming years. The Estonian residential market has become more stable, and the number of transactions for apartments and the median price have not really changed since the second quarter of the year. The calming of the residential property market is partly due to increased supply of residential space, which has helped to release price pressures, and partly it comes from the fall in the affordability of real estate following recent rapid price rises, which have made buyers more wary about a possible overheating of the real estate market. Real estate prices will continue to rise throughout the forecast horizon at about the same speed as wages, and the affordability of real estate will not change significantly.

RISKS TO THE FORECAST

Some of the risks that could threaten the Estonian economy are smaller than they were six months ago. The risk identified in June of excessive growth in labour costs that could hurt the competitiveness of the economy has diminished during the year. This does not mean that pressures from rising wages have completely disappeared, as the minimum wage will rise next year, new wage agreements will come into force in certain sectors and the labour shortages caused by the shrinking of the working age population will be felt more and more. If the economy grows as fast as expected, it is possible that the pressure from wage rises will be offset by the increase in productivity. If the economy grows more slowly, it is probable that the competitiveness and profitability of companies could again be threatened. The second threat noted in June that has now declined significantly is the rapid rise in real estate prices.

Risks to Estonian economic growth are mostly on the downside and come mainly from the external environment. The first is that demand in Estonia's trading partners could again be weaker than is forecast and could restrain exports. The second is that geopolitical tensions could harm the outlook for the Estonian real economy through increased uncertainty, which could erode the confidence to invest and consume. This effect will be greater if heightened tensions lead to additional sanctions. A further source of negative risk is rising prices in the Swedish real estate market, which could lead to a bubble that would make financing harder to access for Swedish bank groups if it burst. Intra-group connections could mean that it becomes harder for Estonian banks to access funding too. Furthermore, falling real estate prices might lead to reduced consumption and investment in Sweden, which would hurt the outlook for Estonian exports to one of the main destination markets.

As the forecast expects that confidence will improve very slowly, it is possible that if the crisis between Russia and Ukraine is resolved faster than is expected, corporate investment may grow faster than forecast. This in turn could boost economic growth in the years ahead. A faster retreat of uncertainty would probably also reduce the inclination of households to save, and would raise private consumption growth.

The risks around Estonian inflation are on the upside for the coming years. The global oil price has fallen sharply since the summer and this has slowed consumer price inflation even despite the dollar appreciating against the euro. The forecast expects a small rise in the oil price, which will be held back by the very slow recovery of demand in world markets. If the supply of oil in world markets is more restricted or if demand recovers faster than expected, the oil price may start to rise quickly and the contribution of energy to an acceleration of inflation may increase. If the falls in the farm-gate prices of milk and meat are passed on into consumer prices more than they were during the last recession, inflation may end up lower than forecast.