MINISTRY OF FINANCE

Economic Survey

Spring 2016

Ministry of Finance publications – 12b/2016

Economic Prospects

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Abstract

The Finnish economy posted GDP growth of 0.5% in 2015, after three years of recession. In early 2015 the main drivers of slow growth were exports and consumption, towards the end of the year the principal driver was investment.

In 2016 the Finnish economy is expected to grow by 0.9% from last year.

The growth outlook for the global economy and trade is modest. World trade will increase by 3% in 2016, accelerating only slightly to 5% in 2018. The performance of exports will remain weaker than global trade, and therefore Finland will continue to lose market shares. Lower energy prices, and oil prices in particular, are bolstering the growth prospects of energy-intensive economies such as Finland. The sharpest falls in energy and raw material prices have bottomed out, and the price of oil will start to move moderately higher. In 2017 consumer prices will accelerate to 1.3%. Nominal earnings will rise annually by around one per cent over the outlook period. Assuming that these projections are accurate, Finnish competitiveness will improve in comparison with Sweden and Germany, for instance.

Investment will return to clear growth in 2016 and continue to grow on a broad base throughout the outlook period. Private consumption growth will be supported this year by moderate price trends. In 2017–2018 consumption growth will continue to outpace real income growth on the back on strengthening consumer confidence. Projections for 2017 and 2018 forecast muted GDP growth at 1.2%. During the forecast horizon the Finnish economy will grow slightly faster than potential output, and therefore the negative output gap will shrink.

The number of persons employed will turn to growth of 0.3% in 2016 as the economy continues to rebound. Employment will improve throughout the outlook period, and the unemployment rate will drop back to 8.7% by 2018.

Finnish public finances have been running a deficit since 2009. The general government budgetary position will improve in the years ahead in response to fiscal adjustment and rebounding economic growth, but nonetheless remain in deficit. General government debt to GDP has long been rising, and the same trend is set to continue. Finland's budgetary deficit came within the 3% of GDP target as set out in the EU Treaty, but public debt remains in breach of the 60% limit.

Central government has the largest deficit of all general government sectors, although its deficit is shrinking. Local government finances will also remain firmly in deficit, and other social security funds are gradually moving back to balance. Earnings-related pension institutions are running a deficit of around 1% of GDP.

Preface

The Spring 2016 Economic Survey is prepared as background material for the Government's spending limits decision. It offers projections of Finland's economic outlook for 2016–2018. In addition to short-term prospects, the Economic Survey includes medium-term projections extending to 2020.

The forecast and trend projections in the survey are prepared independently by the Ministry of Finance Economics Department based on the Act on the implementation of the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union and on multi-annual budgetary frameworks (869/2012).

The forecasts are based on provisional national accounts data for 2015 published by Statistics Finland in March 2016 and on other public statistical sources available on 22 March 2016. Both the short-term and medium-term projections take account of the decisions taken by the Government in its spending limits discussions on 5 May 2016.

Helsinki April 2016

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The source for all data on materialised developments is Statistics Finland unless otherwise indicated.

SYMBOLS AND CONVENTIONS USED

-	nil
0	less than half the final digit shown
..	not available
.	not pertinent
**	forecast
CPB	CPB Netherlands Bureau for Economic Policy Analysis
HWWI	Hamburgisches WeltWirtschafts Institut
IMF	International Monetary Fund
MoF	Ministry of Finance

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Summary

Economic outlook 2015-2017

After three years of recession, Finland returned to GDP growth of 0.5% in 2015, according to provisional Statistics Finland figures. In early 2015 the main drivers of this slow growth were exports and consumption, towards the end of the year the principal driver was investment.

In 2016 the Finnish economy is forecast to post growth of 0.9% from last year. Projections for 2017 and 2018 forecast muted growth at 1.2%. The forecasts do not factor in the effects of a possible social contract.

Despite the slight rebound, the Finnish economy is expected to remain weak in the immediate future. It is predicted that GDP in 2018 will still be some 2% lower than in 2008, and that industrial output in 2018 will be about one-fifth lower than 10 years ago. The performance of exports will remain weaker than global trade, and therefore Finland will continue to lose market shares in world trade.

In the immediate future economic activity will be maintained primarily by private consumption and investment. In the medium term potential output growth, which reflects the level of output possible given the resources on hand, will be less than one per cent.

The growth outlook for the global economy and trade is modest. World trade will increase by 3% in 2016, accelerating only slightly to 5% in 2018. In 2018 world economic growth will reach no more than around 4%. Growth prospects in China have continued to deteriorate, and the growth rate is forecast to drop back to 6%. Recently much concern has been expressed about the Chinese stock market, but we should not to read too much into its performance: the stock market structure and operation differ significantly from those of its western counterparts and do not reflect developments in the real economy in the same way. The slowdown of economic growth in China is clearly reflected in the outlook of other emerging economies, which will be heavily hit by the reduced Chinese demand for raw materials. The Russian economy is continuing to contract, and there is no growth in sight in 2017. Russian imports are continuing to fall, and the country's growth potential is hampered by the rigidities of its economic system.

It is expected that many of Finland's major trade partners will see rather solid economic development. US economic growth has not reached the levels predicted earlier, but the prospects for growth are still good: over the next few years the economy will post growth of around 2.5%. The Swedish economy showed very strong growth last year at 4.5%. This will slow down over the next couple of years, but growth will nonetheless remain broad-based

and faster than in the EU area on average. In the UK, too, growth is broad-based and the economic situation is expected to remain strong throughout the forecast horizon. In Germany, growth will reach a healthy 1.5%. The euro area is also back on a track of moderate growth, and the annual growth forecast for the outlook period is around 2%.

The monetary policies pursued by central banks are growth-supportive. The ECB has further expanded its exceptional monetary policy operations, and its reference rates will remain at historically low levels throughout the outlook period. Short-term interest rates will remain negative in 2017, and the three-month Euribor interest rate will only move into marginally positive territory in 2018. The ten-year interest rate will also remain low, averaging 1.6% in the last year of the forecast horizon.

There is downward pressure on the euro to dollar exchange rate, and the forecast is that by 2018 the euro will be at parity with the dollar. The weakening of the euro will bolster the price competitiveness of exports in markets where payments are settled in dollars. Around 80% of Finnish exports are invoiced in euros or dollars. Lower energy prices, and oil prices in particular, are good news for the growth prospects of energy-intensive economies such as Finland. The sharpest falls in energy and raw material prices have bottomed out, and the price of oil will start to move moderately higher.

The development of earnings is a major domestic cost factor with important implications for competitiveness. Nominal earnings will rise annually by around one per cent over the outlook period. Assuming that these projections are accurate, Finnish competitiveness will improve in comparison with Sweden and Germany, for instance.

The Finnish GDP growth forecast for 2016 is 0.9%. This moderate growth will mainly be driven by investment. It is predicted that private investment will increase by 5.8%. Investment growth will be broad-based, but particularly strong in building construction. The growth of investment in machinery and equipment is particularly positive, even though most of it is attributable to a few major projects.

In 2016 household real disposable income growth will pick up and private consumption will increase by one per cent. The growth of consumer demand will be focused on spending on durables. Household indebtedness will continue to increase, but at a slower rate than earlier.

With imports growth outpacing exports growth, net exports will have a negative effect on economic growth. Imports will be driven by increasing investment and consumer demand. It is predicted that exports will rise by no more than 1.3%, and therefore Finland will continue to lose market shares in world trade. It is predicted that the current account will be close to balance.

The slide in industrial output is finally coming to a halt after five consecutive years of decline. It is forecast that industrial production will increase by 0.8% in 2016. Service production is also set to grow by almost one per cent. The number of persons employed is expected to be 0.3% higher than the year before, and the annual average unemployment rate is predicted to come in at 9.3%. The biggest problem in the labour market is the sharp rise in long-term and structural unemployment. Consumer prices are expected to rise moderately in 2016 by just 0.3%.

The GDP growth forecast for 2017 is 1.2%. This growth will again mainly be driven by investment and private consumption. Exports will begin to pick up in the wake of rebounding world trade, but the growth rate will remain historically subdued. Imports will marginally outpace exports, but the negative growth contribution of net exports will be smaller than the year before. Investment growth will slow somewhat from the current year, but all investment items will nonetheless continue to post positive growth.

Private consumption volume growth will slow somewhat, but still remain relatively strong compared with disposable income growth. The forecast for private consumption growth is based on the assumption of improving consumer confidence, which will contribute to reduce the household savings rate. It is predicted that industrial output will increase by some 2%, mainly on the back of strong metal industry performance. The 2% figure for output growth is still very modest indeed. No significant improvement is predicted in the labour market situation. The number of employed persons will increase by 0.4%, and the unemployment rate is expected to fall to 9%. Consumer prices will accelerate to 1.3%.

The GDP growth forecast for the last year of the forecast horizon is 1.2%. Overall, the growth outlook for the 2016–2018 period is quite subdued. Ultimately the reason for this lies in the persistently sluggish performance of exports. In the short term domestic demand will continue to drive economic growth, but for a small open economy like Finland this is not enough to generate faster than projected growth. From the point of view of economic welfare and its underlying international division of labour, it is crucial that the country also has a competitive export sector.

Projected cumulative growth in 2016–2018 will reach no more than 3.3%, and the GDP volume will remain lower than in 2008. The Finnish economy is in poor shape and faces huge challenges. During the forecast horizon the Finnish economy will grow slightly faster than potential output, and therefore the negative output gap will shrink.

Finnish public finances have been running a deficit since 2009. The general government budgetary position will improve in the years ahead in response to fiscal adjustment and rebounding economic growth, but nonetheless remain in deficit. General government debt to GDP has long been rising, and the same trend is set to continue. Finland's budgetary deficit came within the 3% of GDP target as set out in the EU Treaty, but public debt will continue to exceed the 60% limit.

Central government has the largest deficit of all general government sectors, although its deficit is shrinking. Local government finances will also remain firmly in deficit, and other social security funds are gradually moving back to balance. Earnings-related pension institutions are running a deficit of around 1% of GDP.

The risks of the forecast for the international economy are skewed to the downside. In China, indebtedness has continued to grow rapidly, especially in the private sector. In the longer term it is also unclear how successful China will be in reforming its economic model and placing greater weight on domestic consumption and services at the expense of manufacturing, investment and exports. The Chinese slowdown and restructuring may also cause greater than anticipated problems especially for emerging economies. In the euro area, too, the risks remain skewed to the downside. Russia's economic situation remains precarious. Political tensions are fuelling high levels of uncertainty and may further deepen the recession in Russia.

It is thought that the sense of uncertainty will also continue in the financial market. Stock prices have fluctuated widely since the beginning of the year, and prices of banking shares in particular have fallen. The situation in the Italian and to some extent in the German banking sector is causing concern, and there is an apparent risk of contagion. It is impossible to offer an overall assessment of the consequences of an unconventional fiscal policy. In any event low interest rates in the current environment of light fiscal policy have fuelled a search-for-yield mentality, and investment flows have been channelled into the housing and stock market, partly as a result of the low demand for credit. Prices have risen sharply in the markets, increasing the risk of major corrective movements.

The domestic risks are still predominantly related to the development of the real economy and the labour market. The Finnish economy has shown poor performance in recent years, and over the next couple of years economic growth will remain slower than in competitor countries. Finnish competitiveness is still weaker than in those countries, and Finland will continue to lose market shares in global trade.

The lesson learned from the past few years is that the health of the national economy can only be properly restored under conditions of a strong real economy. If the Finnish economy develops as predicted, this will not be enough to essentially improve the state of public finances, for instance.

Priority focus should now be given to developing economic policy reforms that have genuine impact on household and business behaviour. The situation in the Finnish labour market looks less than promising. The proportion of the inactive population is too high, and the supply and demand match in the labour market needs improving. Decisions on business location and production activities are influenced by input price levels and their development. In a competitive marketplace these factors will have an increasingly pronounced influence.

The best way to tackle the challenges facing the economy is by means of a predictable economic policy and a proactive approach to addressing structural problems. The development of the Finnish economy and the Government's economic policy decisions are currently being closely monitored both inside and outside the country. The impressions of outside observers will for their own part influence the future course of the economy.

Table 1. Key forecast figures

	2015 EUR bn	2013	2014	2015	2016**	2017**	2018**
		change in volume, %					
GDP at market prices	207	-0.8	-0.7	0.5	0.9	1.2	1.2
Imports	77	0.5	0.0	-0.4	2.6	3.0	3.5
Total supply	284	-0.8	-0.3	0.0	1.4	1.6	1.8
Exports	77	1.1	-0.9	0.6	1.3	2.9	3.6
Consumption	167	0.0	0.3	0.7	0.7	0.6	0.6
private	116	-0.5	0.6	1.4	1.0	0.8	0.9
public	51	1.1	-0.3	-0.9	-0.1	0.0	0.0
Investment	42	-4.9	-2.6	-1.1	5.2	3.3	3.0
private	34	-6.6	-3.1	-1.0	5.8	4.1	4.0
public	8	2.6	-0.6	-1.2	2.7	0.1	-1.3
Total demand	285	-0.4	-0.1	-0.4	0.8	1.1	1.3
domestic demand	207	-1.1	0.2	-0.7	0.6	0.4	0.4
		2013	2014	2015	2016**	2017**	2018**
GDP, EUR bn		203	205	207	211	215	221
Services, change in volume, %		-1.4	-0.2	0.9	0.7	1.2	1.0
Industry, change in volume, %		0.0	-1.7	-0.6	0.8	2.1	2.4
Labour productivity, change, %		0.5	0.0	0.7	0.4	1.0	1.0
Employed labour force, change, %		-1.0	-0.4	-0.4	0.3	0.4	0.4
Employment rate, %		68.5	68.3	68.1	68.4	68.8	69.1
Unemployment rate, %		8.2	8.7	9.4	9.3	9.0	8.7
Consumer price index, change, %		1.5	1.0	-0.2	0.3	1.3	1.5
Index of wage and salary earnings, change, %		2.1	1.4	1.2	1.2	1.0	1.2
Current account, EUR bn		-3.3	-1.9	0.3	0.2	0.3	0.6
Current account, relative to GDP, %		-1.6	-0.9	0.1	0.1	0.1	0.3
Short-term interest rates (3-month Euribor), %		0.2	0.2	0.0	-0.2	-0.1	0.1
Long-term interest rates (10-year govt. bonds), %		1.9	1.4	0.7	0.6	1.1	1.6
General government expenditure, relative to GDP, %		57.5	58.1	58.3	58.2	57.6	57.0
Tax ratio, relative to GDP, %		43.7	43.9	44.5	44.6	44.4	44.1
General government net lending, relative to GDP, %		-2.6	-3.2	-2.7	-2.5	-2.1	-1.8
Central government net lending, relative to GDP, %		-3.7	-3.8	-3.1	-2.9	-2.6	-2.2
General government gross debt, relative to GDP, %		55.4	59.3	63.1	65.0	66.7	67.4
Central government debt, relative to GDP, %		44.1	46.3	48.2	50.0	51.6	52.4

Calculating the effects of reducing business operating costs

The MoF Economics Department has assessed the impact of a temporary reduction in business operating costs on the broader development of the economy using its macroeconomic model (Kooma). The analysis is conducted for the 2016–2021 period. The results are reported in relation to the steady state path, which may be represented by the current outlook for the Finnish economy.

Operating costs are crucial to the potential of businesses to generate output and employment. Lower costs can pave the way to improved price competitiveness. Investment in intellectual capital, new products and new procedures and practices all contribute to improve business productivity and to reduce marginal costs (the cost that results when output changes by one unit). Longer working hours also reduce businesses' marginal costs.

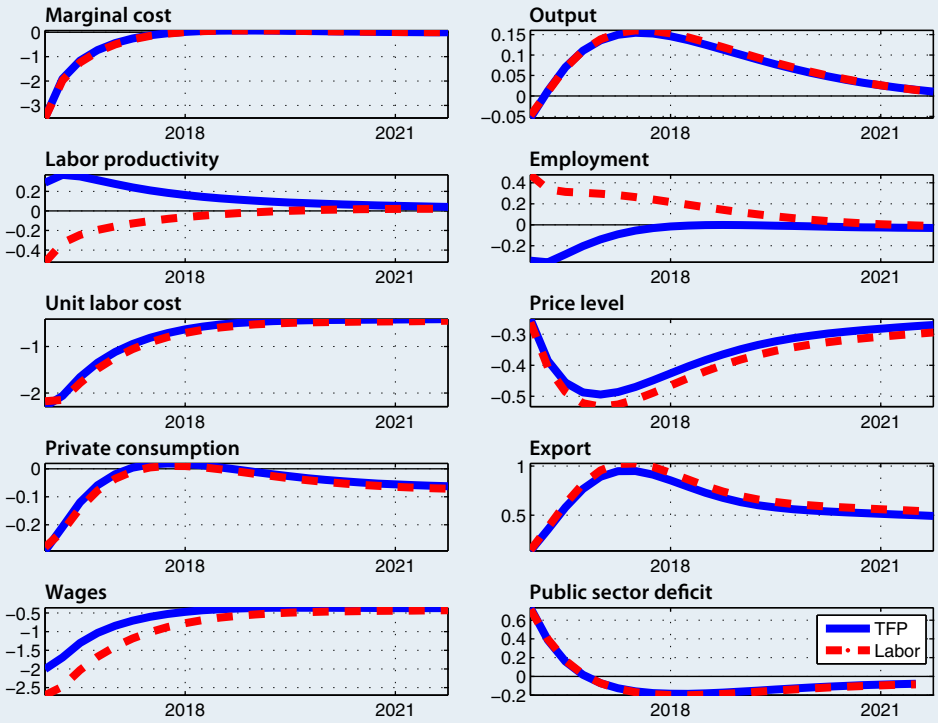
The calculation compares two different types of shocks that lower businesses' marginal costs. The overall productivity shock gives businesses access to better technology and increases the volume of output. The labour supply shock primarily increases the number of hours worked; the number of jobs only increases later in response to increased output levels. The labour supply shock is derived from the household benefit function. A positive labour supply shock reduces the marginal rate of substitution in consumption relative to employment and creates an incentive to work more. Both shocks are temporary quarterly impulses, and both return equally quickly to the baseline.

The productivity shock will lower the marginal costs of domestic production, and businesses will gradually re-price their products (see Figure 1 TFP). The lowered price level will boost exports. Exports will peak one year later when export companies have re-priced their products and when improved price competitiveness has bolstered exports. The demand for labour input and wages will fall as increased productivity will reduce the amount of labour input needed to generate the same amount of output. There will be a temporary decrease in consumption as liquidity-strapped consumers immediately cut back on their spending. Consumers who optimise over time, in contrast, will increase their consumption with falling price levels. Consumption will return to positive growth within one year, and the overall cumulative effect is distinctly positive. Exports will drive output to growth, and employment will begin to improve.

The labour supply shock will increase the willingness to work, and the number of hours worked will increase (see Figure 1 Employment). Costs per output unit, i.e. marginal costs will therefore be reduced. As in the case of the productivity shock, reduced marginal costs will contribute to boost exports through more competitively priced products. The increased supply of labour will also have the effect of lowering wages. The wage reaction obviously has a major impact on the outcome. The less wage adjustment there is, the less will be the cumulative effects of reduced costs, and the less prices will fall and exports improve. On the other hand, consumption will also decrease less. The difference will be greatest in the case of liquidity-strapped consumers, who will respond more immediately to changes in their wages. The impacts of the wage reaction are also felt at the level of output. The sharper the slowdown in wages in comparison with steady state growth, the more output and overall employment will improve and the longer lasting this improvement.

The public sector deficit will show a temporary marginal increase, but overall the deficit will shrink. In other words, steps to create more favourable conditions for business through lowered costs will also benefit public finances.

Lowering costs



Medium-term outlook

Finland's GDP returned to slight growth last year, after three consecutive years of decline. Apart from cyclical factors, the poor performance of the economy is due to an ongoing process of restructuring in industry and the economy as a whole, which has also undermined longer term growth prospects. It is expected that economic growth will slightly accelerate this year and next. However it is thought that growth will remain historically slow even in the medium term.

The medium-term outlook can be examined via potential output, which is thought to determine the economy's medium-term growth prospects. In its assessments of potential output the MoF Economics Department uses the production function method as developed jointly by the EU Commission and Member States, in which potential output growth is divided between projections of potential labour input, capital and total factor productivity. Potential output is an unobservable variable and its assessment is highly challenging, especially during a strong economic cycle and under conditions of rapid changes in the production structure.

The labour input will decrease over the next years as the population of working age continues to shrink. At the same time, though, labour participation rates are expected to increase somewhat, especially in older age groups. Another factor determining labour input growth is the structural unemployment rate: this is the level of unemployment below which upward wage pressures begin to develop in the labour market. In practice this means that unemployment is above its structural level when real unit labour costs are falling, i.e. when wages are rising more slowly than productivity and inflation taken together. Using the EU's common method, it is estimated that Finland's structural unemployment level is around 8%. The medium-term forecast is that unemployment will begin to approximate this level as the output gap closes. The declining labour input will weaken potential output growth to some extent in the medium term.

Increasing total factor productivity has been a major driver of economic growth in the past few decades. In recent years, however, total factor productivity has shown only modest growth. This slowdown is attributable to both cyclical and structural factors. Output has dropped significantly in high-productivity branches, and at the same time services have gained increasing prominence in the economy. The total factor productivity trend can be extracted from observed productivity based on the capacity utilisation rate and other cyclical indicators. In recent years total factor productivity trend growth has been around zero, and it is expected that in the medium term the growth rate will remain much slower than in the early 2000s.

The economy's potential output is dependent not only on labour input and total factor productivity, but also on the existing capital stock. Several years of low investment have contributed to slow capital stock growth and therefore undermined the economy's future growth potential. An increased investment rate over the outlook period will strengthen the economy's growth potential. Overall it is projected that the economy's growth potential will only rise to just under one per cent a year by 2020.

The difference between total actual output and potential output, i.e. the output gap is negative when actual output is lower than potential output. This means there is idle capacity in the economy and output can grow more rapidly than potential output without creating price pressures. It is estimated that in 2016 the output gap will stand at around 2% of potential output. In 2016–2020, it is predicted that the economy will grow at an average annual rate of just over one per cent. According to the EU's common production function method, Finland's potential output growth is slower, on average just over ½% a year. When GDP growth exceeds its potential, the output gap contracts, and according to the forecast the output gap will close in 2020. When the output gap closes, unemployment will approach its structural level, the labour participation rate will be at its trend level and total factor productivity growth will be equivalent to trend growth once all idle production capacity has been put to use.

Finnish public finances have been running a significant deficit since 2009. Although economic growth is rebounding and the output gap is contracting, this growth is not enough to bridge the deficit in public finances. At the same time, population ageing is continuing to weigh down on public finances. General government revenue is no longer enough to sustain all the structures and functions of the public sector that were created on the foundations of stronger economic growth.

Slow potential output growth is having an adverse effect on public finances as economic growth and therefore tax revenue growth are expected to remain subdued in the years ahead. Despite fiscal adjustment, public finances will remain in structural deficit. The public debt to GDP ratio exceeded the 60% threshold in 2015, but fiscal consolidation will contribute to slow the growth of the debt ratio during the next years.

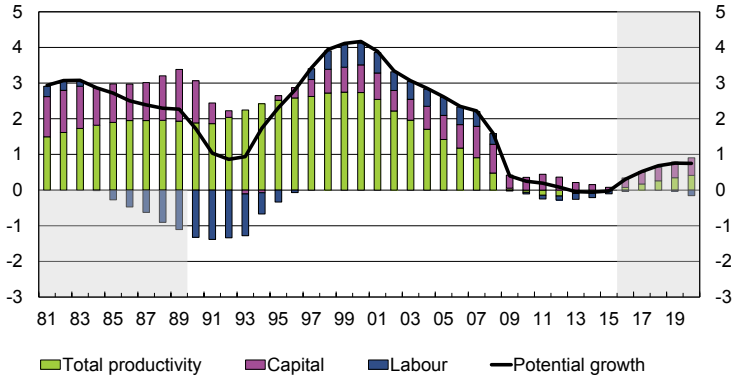
Table 2. Key forecast figures for the medium term

	2014	2015	2016**	2017**	2018**	2019**	2020**
GDP at market prices, change in volume, %	-0.7	0.5	0.9	1.2	1.2	1.1	1.1
Consumer price index, change, %	1.0	-0.2	0.3	1.3	1.5	1.7	1.8
Unemployment, %	8.7	9.4	9.3	9.0	8.7	8.4	8.1
Employment rate, %	68.3	68.1	68.4	68.8	69.1	69.4	69.7
General government net lending, % of GDP	-3.2	-2.7	-2.5	-2.1	-1.8	-1.4	-1.3
Central government	-3.8	-3.1	-2.9	-2.6	-2.2	-1.7	-1.5
Local government	-0.8	-0.7	-0.7	-0.6	-0.6	-0.7	-0.8
Social security funds	1.3	1.0	1.1	1.1	1.0	1.0	0.9
Structural balance, % of GDP	-1.5	-1.3	-1.5	-1.4	-1.4	-1.2	-1.3
General government gross debt, % of GDP	59.3	63.1	65.0	66.7	67.4	67.4	67.2
Central government debt, % of GDP	46.3	48.2	50.0	51.6	52.4	52.6	52.5
Output gap, % of potential output [1)]	-3.0	-2.5	-1.9	-1.2	-0.7	-0.4	0.0

[1)] Estimated according the method developed jointly by the EU Commission and Member States.

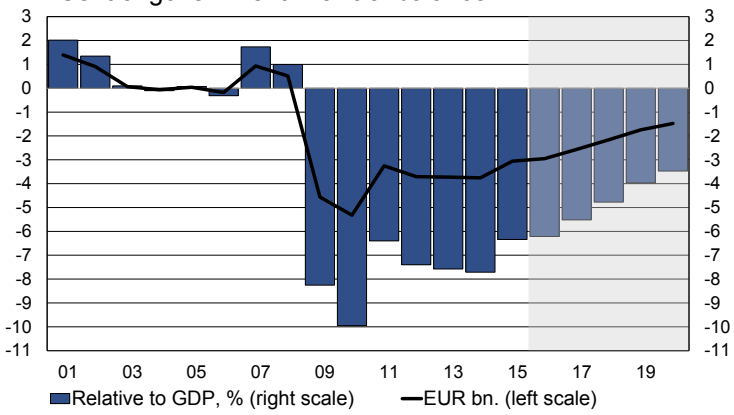
Contributions to potential growth

according to EU method, %



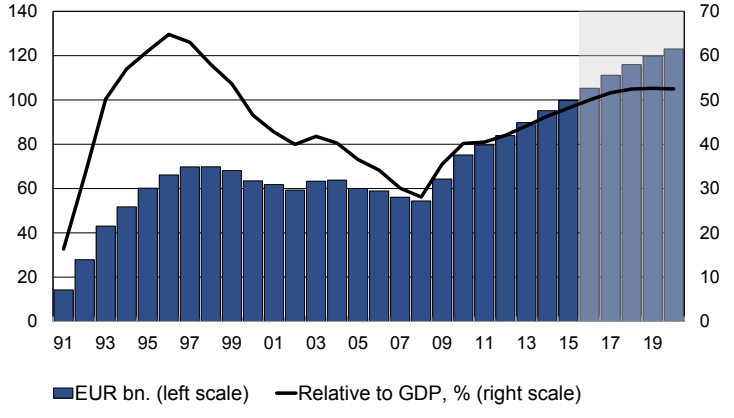
Sources: Statistics Finland, MoF

Central government financial balance



Sources: Statistics Finland, MoF

Central government debt



Sources: Statistics Finland, MoF

Fiscal policy

General government expenditure is financed from revenue generated by economic activity. Households and businesses pay taxes on their incomes, and households furthermore on their consumption. In addition, public ownerships generate property income. For this reason slow economic growth presents a major challenge for Finnish public finances.

The Finnish economy has been in a difficult situation for the past few years, often recording negative GDP growth figures. Unemployment has increased, and unemployment spells have become longer. The downturn has been longer and deeper than anticipated.

At the same time, the prospects for economic growth have been eroded by industrial restructuring, low investment, the prolonged unemployment becoming structural and population ageing.

Demographic change will continue apace for the most part of the next two decades. During this period the main factor driving aggregate economic output growth will be total factor productivity. On this basis it is estimated that the potential for growth will be around 1–1.5% over the long term.

Public finances have been significantly impacted by the challenging times. The general government budgetary position has deteriorated, and the debt ratio has increased rapidly. In 2014, the general government deficit was over 3% of GDP. The deficit decreased in 2015, but the debt ratio exceeded 60% of GDP.

As the economic downturn recedes, the general government budgetary position will gradually improve. The steps taken by the Government to stabilise public finances will also contribute to strengthen the budgetary position. Nonetheless public finances are faced with the risk of persistent structural imbalance. The foreseeable economic growth will not be enough to finance existing public structures nor to guarantee the long-term provision of statutory benefits and public services.

In this situation it is important that fiscal and other economic policy is geared to striking a balance between supporting domestic demand through the recession, curbing the growth of public debt in the medium term, improving the conditions for economic growth and ensuring the sustainability of public finances in the long term.

In order to make informed and appropriate economic policy decisions, it is crucial to have a clear understanding of the factors contributing to the poor performance of the economy. In Finland, most of these factors are structural by nature.

Steps to support domestic demand will not help to solve problems that are caused by shifting economic structures. Fiscal measures aimed at boosting demand make sense if they also promote economic restructuring and the conditions for future output. Sustainable growth can only be generated through innovations and productivity growth in business firms.

The strong and stable institutions of Finnish society, including health care, education, public social insurance, the banking and financial system as well as our euro zone membership all contribute to enhance households' and businesses' risk tolerance. These institutions provide a sound basis for innovations and productivity growth.

The key areas of economic policy focus for Prime Minister Juha Sipilä's Government are competitiveness, employment and public service provision. The Government's economic policy objectives are to curb the growth of public debt and to bridge the sustainability gap by means of savings as well as measures that support growth and improve the efficiency of public service provision.

The Government's immediate fiscal adjustment package to strengthen public finances consists of actions aimed at curbing public expenditure and reallocating expenditure. The net effect of these actions will improve the general government budgetary position by some EUR 4 billion by 2019. With the decisions announced by the Government on 5 April 2016, the planned package of actions has almost reached its full extent. The actions will be implemented as per the schedules set out in connection with annual state budgets.

The Government is committed to improve the conditions for employment and economic growth by means of taxation and by strengthening competitiveness and productivity growth. Central to these efforts will be moderate wage settlements, the introduction of an export industry driven approach to wage formation, and labour market reforms designed to encourage local level wage bargaining. The target has been to generate enough new growth and jobs to improve the general government budgetary position by EUR 1–1.5 billion over the medium term.

Key longer-term measures are those designed to cut public sector costs by easing municipalities' burden of statutory duties and obligations, by taking better advantage of digitalisation, and by restructuring social welfare and health care services and funding, including the reform of regional and central administration. These reforms are now in the planning stage and are proceeding on schedule. By means of these actions, the Government's aim is to curb public expenditure growth by some EUR 4 billion over the long term.

Furthermore, Parliament has adopted the pension reform initiated by the previous government. This reform will enter into force from the beginning of 2017 and will contribute to strengthen public finances in the long term.

1 Economic outlook

1.1 Global economy

World economic growth remains slow

The outlook for the world economy is multifaceted. The global picture is one of accelerating growth, but there is marked variation in economic conditions and future prospects. In advanced economies, growth is slowly picking up, but the outlook for many emerging economies is challenging. The Chinese economy is set to slow after a sustained period of robust growth, and Russia and Brazil will remain in recession for at least the current year. The slowdown of growth and restructuring in China are overshadowing the prospects of many emerging economies and raw material producers, especially in Asia, Oceania and the Middle East, but growth in India will remain strong.

The euro area has remained on a slow growth track, partly as a result of reduced prices of oil and many other imports and a weaker euro exchange rate. These tailwinds will dissipate by the end of the outlook period. The supply of credit and overall financing conditions have also improved, fiscal policy is hampering growth to a lesser extent than before, and monetary policy remains expansionary. These factors are contributing to drive private consumer demand, and investment is also slowly rebounding. The exceptionally high level of immigration will provide a minor additional demand boost, but adversely affect the balance of public finances.

In Spain, Ireland and elsewhere, earlier structural reforms have contributed to a return to brisk growth. Euro area growth is still hampered by persistently high unemployment. In the UK and Sweden, growth is still robust and employment is at a high level.

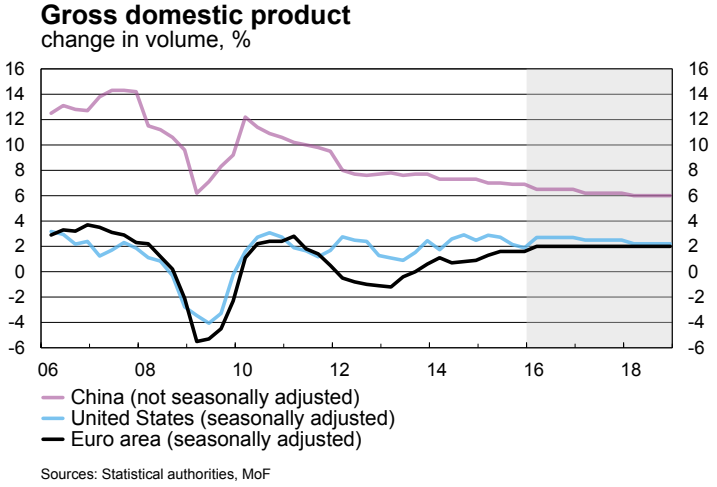
Broad-based, but slower than anticipated growth is continuing in the United States. The rebound is supported not only by low energy prices, but also by stronger household balance sheets, favourable labour market conditions and a lighter fiscal policy. The rate of new job creation is higher than the rates of resignation and recruitment. Both nominal and real wages are rising faster than ever since the financial crisis, and consumer confidence has returned to its historical median. Investment is also set to grow at a moderate rate. The dollar has strengthened with interest hike expectations, which will contribute to slow exports and increase imports.

Productivity growth has slowed both in Europe and the United States, hampering prospects for supply growth. Productivity growth has remained strong at the technological forefront, but slowed significantly elsewhere. Productivity is set to play an increasingly significant role in the future, especially in the ageing European labour market. Structural reforms could help to improve the conditions for productivity growth.

The Russian economy continues to remain dependent on oil and gas exports. The country has failed to transform itself or to use the revenue generated from raw materials to diversify its production. Its growth potential is effectively hampered by unmade investments and obsolete economic structures, such as public interference in private sector investment and production decisions. Post-recession growth in Russia will remain very muted.

In China, growth in industry, construction and commodity exports has already slowed significantly, and this trend is set to continue. The Chinese economy is now in transition from an export and investment driven model to one led by domestic consumption and services. Historically, corresponding changes have resulted in a marked slowdown of growth. If the country is successful in its policy, this slowdown will be well controlled, initially to around 6%.

Japan's growth potential is less than 1%, and even minor negative shocks can push the economy into technical recession. Japanese exports have failed to recover despite persistent stimulus and a massive devaluation of the yen. Although the population is ageing rapidly, the supply of labour has remained strong. The labour market remains tight, and rising wages over the outlook period will support household demand.



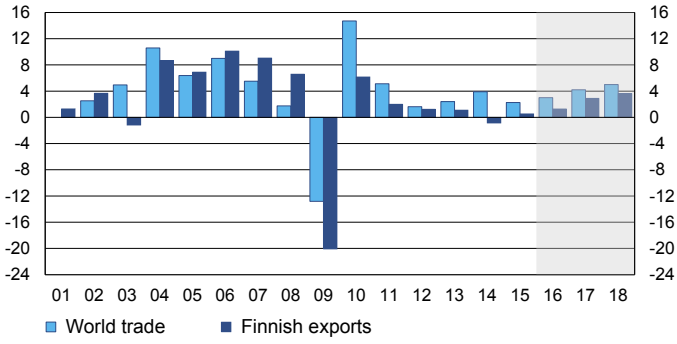
Sources: Statistical authorities, MoF

World trade to remain modest

World trade growth has slowed, among other reasons because of the slowdown of Chinese manufacturing and sluggish investment activity in industrial countries. Imports growth will remain exceptionally modest, especially in emerging economies. Before the financial crisis, trade growth was around twice as high as output growth, but at the moment trade is actually growing more slowly than output. Earlier, such slow rates of trade growth have only been seen under conditions of recession.

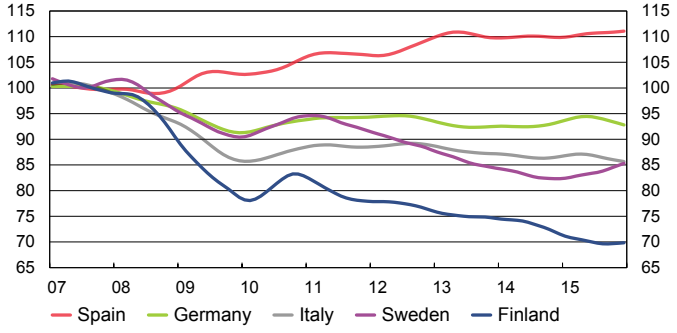
Finland's market share in world trade has continued to shrink, but this trend is now slowing. In the euro area, Finland has almost regained the same market share as it had before the crisis. In Sweden and Russia, on the other hand, Finland is continuing to lose market shares. Global trade will not provide a strong demand impetus for Finnish exports.

World trade
change in volume, %



Sources: CPB Netherlands Bureau for Economic Policy Analysis, Statistics Finland, MoF

Market share in goods exports[1]
2007=100, trend (HP)



[1] Ratio of goods exports growth to world trade growth

Sources: Macrobond, MoF

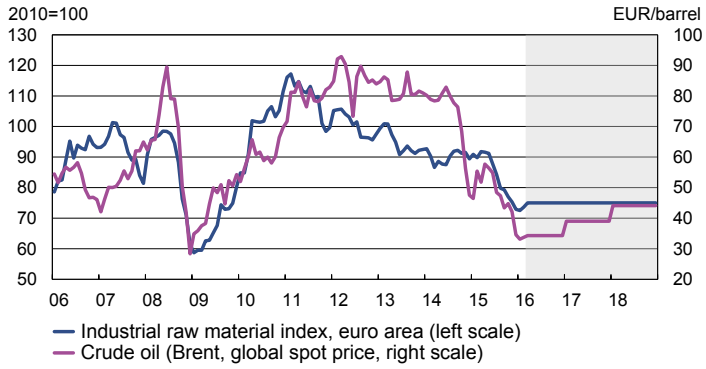
Inflation set to remain very moderate

The price of crude oil has fallen sharply above all in response to the deteriorating outlook in emerging economies and persistently high US and OPEC supply. The supply of crude oil will expand further following the agreement reached in the Iranian nuclear dispute, and oil prices will rise only very moderately. As energy is an intermediate input in all products and services, the effects of the oil price shock will be felt throughout the economy.

Slower than expected growth of demand from emerging economies and continued high supply have caused other industrial raw material prices to fall sharply, too. Raw material prices are apparently reaching a bottom. Furthermore, the slide in producer prices due to excess capacity in China has continued. Together, these factors have thrown world export prices into sharp decline. Inflation expectations are also extremely low, allowing central banks in industrial countries to persist with the current unusual monetary policy stance. However there is no real threat of a deflationary cycle in sight.

In the United States, interest rates have begun slowly to move back to normal. Interest rates in the euro area will rise very slowly over the outlook period and for a long time remain at a clearly lower level than was normally seen during the pre-crisis period.

Raw materials prices
EUR



Sources: Hamburgisches WeltWirtschafts Institut, Macrobond, MoF

Risks remain on the downside

In China, indebtedness has continued to grow rapidly, especially in the private sector. The high and increasing debt burden coupled with slowing growth and economic restructuring may cause shocks that, because of the size of the Chinese market and global value chains, may have wide-ranging effects, particularly on raw materials and investment goods suppliers. In the longer term it is also unclear how successful China will be in reforming its economic model and placing greater weight on domestic consumption and services at the expense of manufacturing, investment and exports. The Chinese slowdown and restructuring may also cause greater than anticipated problems especially for emerging economies.

In the euro area, too, the risks remain skewed to the downside. Households may struggle even more than anticipated to recover with the waning effects of the current favourable conditions. It is also unclear how committed indebted member states are to the politically-charged programmes of public sector adjustment, and adjustment may have the effect of reducing demand more than anticipated. The ability of the euro area to resist negative shocks will remain weak.

The outlook remains overshadowed by geopolitical tensions in Ukraine, the Middle East and elsewhere. Confidence has not weakened to the same extent as in many earlier political and currency crises, but if tensions flare both trade flows and financing may be adversely affected.

Russia's economic situation remains precarious. Political tensions are fuelling high levels of uncertainty and may further deepen the recession in Russia. It is unclear how the country will adapt to the period of slow growth that lies ahead.

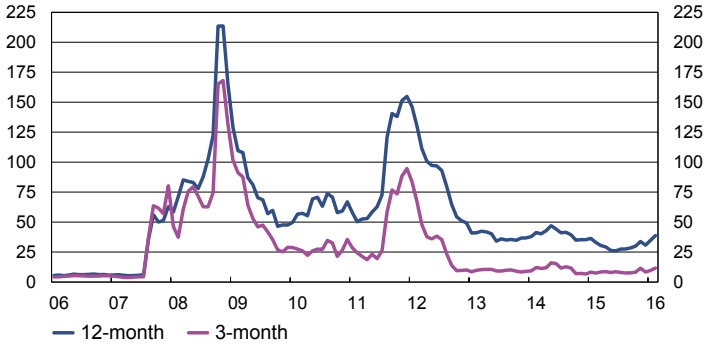
Extremely low interest rates in industrial countries and a stronger search-for-yield mentality have steered investment flows into the housing and stock market, which may have led to overvaluations. In Sweden, for instance, housing prices have risen very sharply. The winding down of unconventional monetary policy, the edging up of interest rates and the

strengthening of the US dollar may cause strong reactions in the financial market. Many emerging economies in particular may see more strong movements of capital as they have taken out large amounts of dollar-denominated loans.

Other upside risks are that lower oil prices may strengthen demand from oil-importing countries more than anticipated, or productivity may recover to stronger growth.

Banking system risks

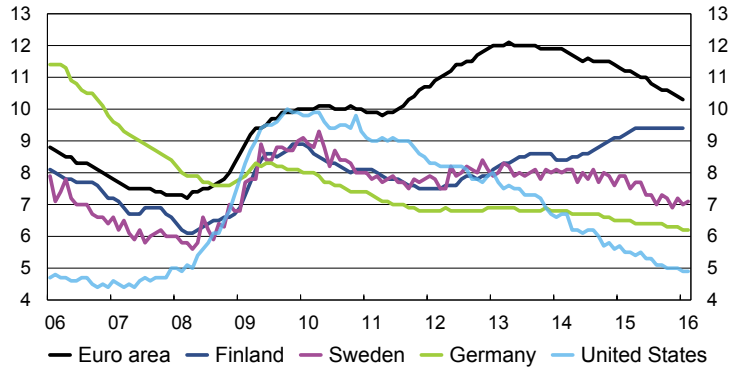
difference between secured Euribor and unsecured Eonia interest rate swap yield, basis points



Source: Macrobond

Unemployment rate

seasonally adjusted, %



Sources: Macrobond, statistical authorities

Table 3. Gross domestic product

	2013	2014	2015	2016**	2017**	2018**
	change in volume, %					
World (PPP)	3.2	3.2	3.1	3.4	3.9	4.1
Euro area	-0.5	1.0	1.8	2.0	2.0	2.0
EU	1.0	1.4	1.6	2.2	2.2	2.1
Germany	0.4	1.6	1.4	1.7	1.5	1.5
France	0.7	0.2	1.4	1.2	1.7	1.5
Sweden	1.6	2.0	4.5	3.2	2.5	2.2
United Kingdom	1.7	3.0	1.9	2.7	2.5	2.2
United States	1.5	2.4	1.9	2.7	2.5	2.2
Japan	1.6	-0.1	0.7	1.0	0.7	0.7
China	7.8	7.3	6.8	6.5	6.2	6.0
Russia	1.2	0.6	-3.7	-2.0	0.0	1.0

Sources: Eurostat, statistical authorities, IMF, MoF

Table 4. Background assumptions

	2013	2014	2015	2016**	2017**	2018**
World trade growth, %	2.6	3.3	2.8	3.0	4.2	5.0
EUR/USD	1.33	1.33	1.11	1.08	1.05	1.02
Industrial raw material price index, EA, € (2010=100)	91.0	90.0	84.0	75	75	75
Crude oil (Brent), €/barrel	82.0	74.5	47.8	34.3	39	44
3-month Euribor, %	0.2	0.2	0.0	-0.2	-0.1	0.1
Government bonds (10-year), %	1.9	1.4	0.7	0.6	1.1	1.6
Export market share (2000=100) [1)]	84	81	79	78	77	76
Import prices, %	-1.7	-1.6	-3.2	-1.2	1.2	1.4

[1)] Ratio of export growth to world trade growth

Sources: Statistical authorities, CPB, HWWI, Reuters, MoF

Euro area moves towards stability – but the threats remain

Financial stability has increased in the euro area as Ireland, Spain, Portugal and Cyprus have persevered with rigorous fiscal adjustment and turned their economies back to growth, restored balance in public finances and regained competitiveness in the global marketplace. The easing of the Greek situation in the autumn, following the crisis last summer, has also had a beneficial impact. At the same time, several euro countries have had success in strengthening their banking sectors. It is paramount, though, that reforms are continued in all euro countries to generate economic growth. A highly indebted economy has limited fiscal room to maneuver and therefore limited capacity to absorb new external shocks.

Profitability in the banking sector is weighed down by the deteriorating international economic outlook and persistently low interest rates. In the euro area the Portuguese and Italian banking sectors in particular have been overshadowed by uncertainty, and public intervention has been required to invigorate the banking systems. The volume of non-performing loans in the Italian banking system is relatively high. At the same time, the Italian state is carrying a heavy debt burden, and growth prospects are moderate. Italian banks hold a significant share of Italian government bonds, so any deterioration in the situation of these banks could compromise their ability to renew their holdings of those bonds. This would impact interest rates on Italian sovereign debt.

For continued financial stability it is important that there is ongoing political commitment to reform in all programme countries. Portugal's budgetary position has deteriorated in the wake of the country's elections and increasing uncertainty about the commitment to reform and the state of public finances. It is crucial that the sense of political limbo following the parliamentary elections in Spain and Ireland can be resolved within the next few months. Continued political stability is a key factor in Greece as well.

Greek economic recovery essential

With Cyprus completing its own programme in March 2016, Greece is now the only remaining euro area economy with an ongoing economic adjustment programme. The recent Greek crisis led to an agreement on a new bailout deal under the European Stability Mechanism ESM in August 2015. Greece had slipped into a state of acute financial crisis, and it was at risk of insolvency. The flight of deposits that threatened the stability of the banking system was successfully stemmed by introducing restrictions on capital movements. Greece pushed ahead with reforms, opening the way to the release of EUR 16 billion in ESM payments to meet immediate financing needs.

The prospects for continued stabilisation were improved by the consolidation steps taken by the Greek banks in the autumn. In order to strengthen their solvency position, they raised EUR 9 billion themselves and received EUR 5.4 billion in ESM financial assistance. The improving stability in the Greek banking sector has reduced the need for ECB emergency funding. By the end of 2015, a total of EUR 21.4 billion was paid out in ESM financial assistance to Greece.

Continued commitment to reforms is paramount to ensuring that stability is maintained in Greece. Although Greece's financing needs in 2016 are significantly lower than last year, the country will still require financing through the ESM programme in order to meet its debt repayments. It is essential that the programme's first review is concluded successfully during the early part of the year and that Greece continues on the path of reform.

The performance of the Greek economy last year was better than feared. Crucially, it succeeded to avoid significant economic contraction. However, progress is hampered by remaining restrictions on capital movement, low levels of investment and SMEs' financing difficulties. Tourism is the bedrock of the Greek economy. Indeed, effective implementation of the EU-level decisions taken in March in a bid to contain the refugee crisis will be vital to ensuring that Greece continues to move towards greater stability.

1.2 Foreign trade

Export growth slower than demand growth

According to Statistics Finland's preliminary national accounts data out in March 2016, exports increased by 0.6% in 2015. Goods and services exports growth slowed in late 2015. Sluggish exports growth reflects several factors, above all the structure of the export industry and Finland's poor cost competitiveness. It is projected that exports will return to moderate growth, mainly on the back of a slight rebound in world trade and rebounding economic growth in Finland's most important export markets. Improving price competitiveness will also support the growth of exports.

Exports growth is expected to pick up to 1.3% in 2016. Euro area economic growth in 2016 will be faster than last year. Continued low oil prices will reduce costs and contribute to maintain world demand. Demand for Finnish exports will therefore increase.

There are many different ways to measure competitiveness. Measured by the real trade-weighted exchange rate, Finnish competitiveness improved in early 2015, but since then has shown no change. When measured by unit labour costs, Finnish competitiveness improved slightly in 2015 compared with the euro area average. Over the outlook period Finnish unit labour cost competitiveness will continue to improve as wage growth remains moderate and as labour productivity starts to increase.

In 2017 exports growth will reach 3% and in 2018 pick up further to 3.5% on the back of increasing global trade. Finland's market share in global trade has continued to decline, but this trend is now slowing. In the euro area, for instance, Finland has almost regained the same market share as it had before the crisis. In the Swedish and Russian markets, by contrast, Finland is continuing to lose market shares.

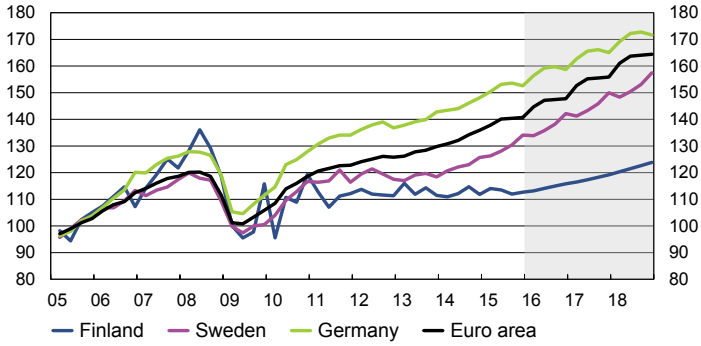
Preliminary national accounts data for 2015 show that the volume of imports declined by 0.4% from the year before. Imports will return to growth in 2016 as accelerating investment growth will increase the use of imported inputs. Consumption will also strengthen imports growth in 2016. Exports will drive imports to growth in 2017 and 2018, while the role of domestic demand will fade somewhat.

The contribution of net exports to GDP growth will be negative in 2016, but turn slightly positive over the outlook period as domestic demand growth gradually slows down.

Table 5. Foreign trade

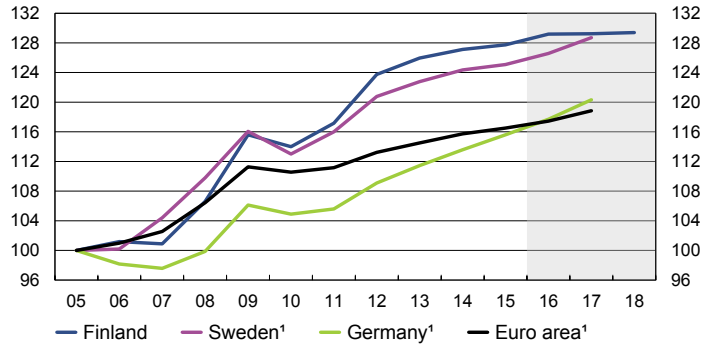
	2013	2014	2015	2016**	2017**	2018**
	change in volume, %					
Exports of goods and services	1.1	-0.9	0.6	1.3	2.9	3.6
Imports of goods and services	0.5	0.0	-0.4	2.6	3.0	3.5
	change in price, %					
Exports of goods and services	-1.1	-0.8	-1.0	-0.4	1.1	1.3
Imports of goods and services	-1.7	-1.6	-3.2	-1.2	1.2	1.4

Exports of goods and services
volume 2005=100, seasonally adjusted



Sources: Eurostat, MoF

Unit labour costs
2005=100, nominal



¹ European Commission forecast

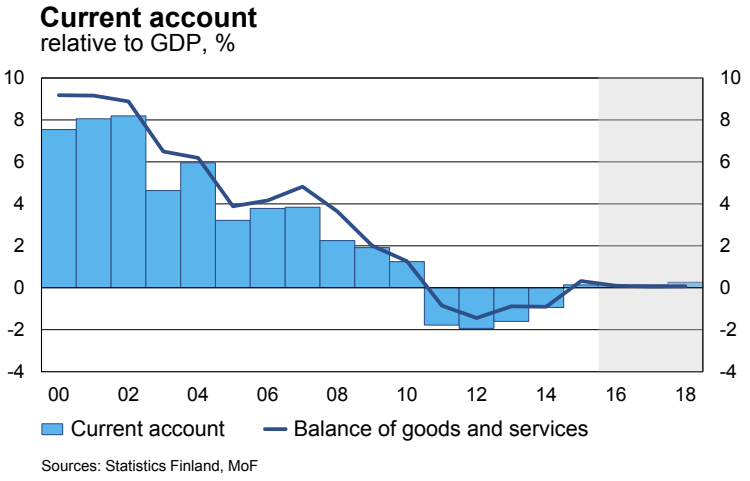
Sources: European Commission, Statistics Finland, MoF

Current account close to balance

In 2015 the current account surplus stood at EUR 0.3 billion, or 0.1% of GDP. The deficit decreased rapidly during 2015. Over the outlook period the trade and current account surpluses will remain close to balance. In 2018 the current account balance will show a surplus of EUR 0.6 billion, or 0.3% of GDP. The trade balance will remain positive. The deficit in the balance of services decreased by around one billion euros in 2015.

The improvement in the terms of trade is the result of a sharp fall in oil prices. Export and import prices continued to fall in 2015, but will recover to marginal growth during 2016. In annualized terms, however, both export and import prices will fall in 2016.

In 2017 and 2018, it is predicted that foreign trade prices will begin to edge up. Prices will only rise slowly, however, as sluggish world trade growth means that export prices in rival countries will increase only moderately and as oil prices will remain low throughout the outlook period. Over the outlook period export prices will follow the same trends as in rival countries. The improvement in the terms of trade will therefore come to a halt and therefore no longer contribute to improving the current account surplus. The development of domestic unit labour costs will also contribute to slow the rise of export prices.



Sources: Statistics Finland, MoF

Table 6. Current account

	2013	2014	2015	2016**	2017**	2018**
	EUR bn					
Balance of goods and services	-1.8	-1.9	0.7	0.3	0.3	0.3
Factor incomes and income transfers, net	-1.5	-0.1	-0.4	-0.2	0.0	0.2
Current account	-3.3	-1.9	0.3	0.2	0.3	0.6
Current account, relative to GDP, %	-1.6	-0.9	0.1	0.1	0.1	0.3

1.3 Domestic demand

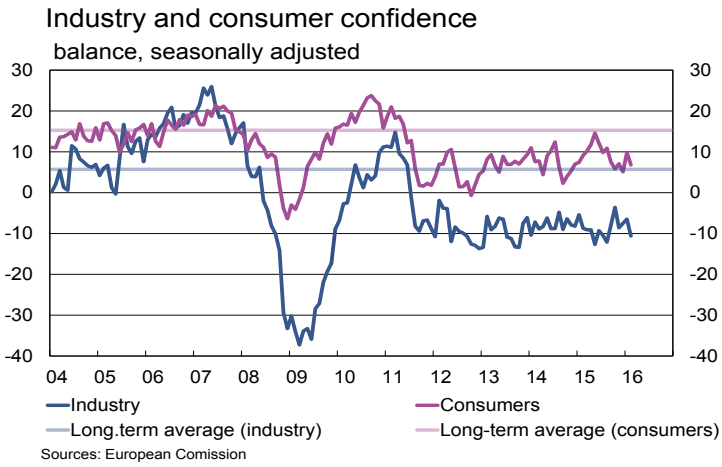
1.3.1 Private consumption

Private consumption growth to maintain economic activity

Sluggish investment and disappointing export performance in recent years have added greater than usual weight to private consumption as a driver of economic activity. In 2015 exceptionally moderate inflation supported the growth of household real disposable income. Indeed, private consumption growth reached 1.4% in 2015, the fastest rate in four years.

Private consumption growth has also been driven by the growth of household indebtedness, which is attributable in part to the persistence of low interest rates. The ratio of household debt to disposable income has continued to rise without interruption since the late 90s. Housing loans account for almost three-quarters of total household debt. In 2015 indebtedness was further accelerated by the 6–12 month loan repayment holidays marketed by banks to housing loan holders. Based on the evidence from the past few months it seems that even though the active marketing of these holidays has now been suspended, there is at least temporarily an increased willingness among consumers to postpone the repayment of their housing loans. In January the total amount of renegotiated housing loans stood at EUR 800 million, while the average monthly figure has been typically around EUR 200 million a month. In the last year households renegotiated their housing loans the total value of mortgage rearrangements totalled EUR 14.3 billion more than usually, while the total stock of housing loans at year-end 2015 stood at EUR 91 billion. It is estimated that in 2015, loan repayment holidays increased the ratio of household debt to disposable income by about one per cent.

The Statistics Finland's consumer survey data indicate that consumer confidence in personal finances remains weaker than the long-term average. This is explained above all by subjective uncertainty and fears about the employment outlook. Despite this climate of uncertainty, the results of the consumer survey suggest that consumers still feel this is a



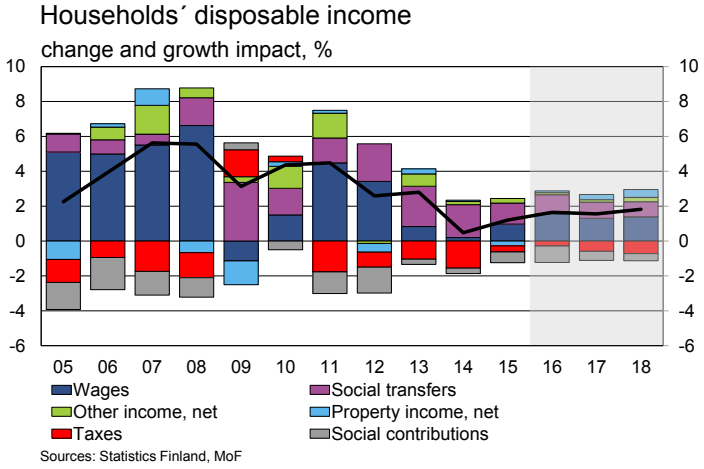
good time to make purchases of durables. Indeed the number of new car registrations, for instance, has continued to rise since last autumn. Low interest rates and the reduction of the motor car tax from the beginning of 2016 are also fuelling the demand for new cars. The ageing stock of cars in the country is also driving up demand for new cars.

Oil and other raw material prices will continue to fall in 2016, which will be reflected in sluggish consumer price growth. Low inflation will help to bolster the growth of household real disposable income. Given the climate of consumer uncertainty, however, private consumption growth in 2016 will be slower than income growth. The increasing savings rate will contribute to slow private consumption growth to one per cent in 2016.

Real wage growth set to slow, confidence set to strengthen

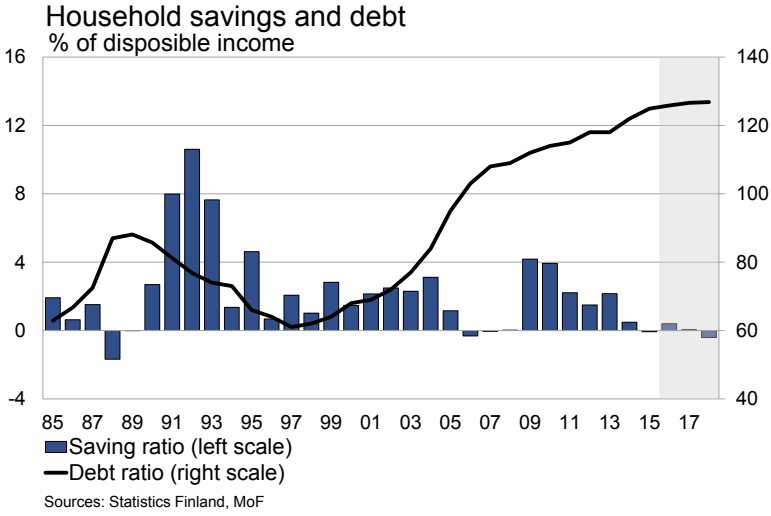
The forecast for private consumption does not factor in the effects of a possible social contract. Following long-drawn-out negotiations, there is broad recognition among the social partners of the imperative to sharpen economic competitiveness. Indeed it is assumed that over the outlook period, collective wage increases will be lower than usual. Moderate wage increases will stimulate employment and at the same time dampen inflationary pressures. On average, household wage income will increase annually by some 1.5% in 2016–2018. The positive employment effects of increased competitiveness will show up after some delay. Labour income as a proportion of GDP will fall slightly over the outlook period. Improving business profitability will bolster the growth of property income.

During the outlook period the average wage earner tax rate will rise slightly. In 2016 the insured employee's unemployment insurance contribution will increase by 0.5 percentage points, and in 2017 employment pension contributions will be raised by 0.25 percentage points. Following a revision of central government income tax scales and changes to the earned income tax credit, the average wage earner tax rate will fall slightly this year, but rise in 2017.



Rebounding economic activity will increase employment and at the same time help to strengthen consumer confidence. Indeed, it is thought that the household savings rate will start falling next year. Nevertheless private consumption growth will slow to 0.8%. One underlying reason is that household real income will increase by no more than 0.4%, among other things because of the effects of rising inflation. Likewise, spending cuts aimed at strengthening the financial position in general government will slow the growth of current transfers received by households. Despite the freezing of the national pension index in 2016–2018, the current transfers received by households will increase nominally by an average of 2.2% a year over the outlook period. One of the factors underlying this development is the ongoing process of demographic change, including the increasing number of pensioners. Private consumption growth will remain relatively strong compared to disposable income growth. The forecast for private consumption growth in 2017–2018 is based on the assumption of improving consumer confidence, which will be reflected in a reduced household savings rate in 2017–2018.

The development of private consumption involves both upside and downside risks. Based on real income development, the growth of private consumption might exceed the forecast for the current year, but on the other hand the uncertainty stemming from unemployment concerns is undermining the propensity to consume. In other words, a faster than anticipated recovery of confidence constitutes an upside risk to consumption this year. As for 2017–2018, the assumption that household confidence will rebound and that the savings rate will consequently fall constitutes a downside risk if the sense of uncertainty experienced by consumers does not dissipate as expected.



1.3.2 Public consumption

Public consumption accounts for around one-quarter of GDP and for over 40% of total public expenditure. The biggest public consumption items are wages, employers' social security contributions and intermediate consumption, i.e. the value of goods and services used as inputs in the public sector. Local government accounts for two-thirds of public consumption: this is mainly expenditure associated with basic municipal service provision.

Central government consumption has hardly increased at all in recent years. In 2015 it stood at roughly the same level as in 2008. The price of consumption, on the other hand, has increased on average by over 2½% since 2008, mainly as a result of wage increases, although in recent years prices have risen slowly. The volume of central government consumption will not increase over the outlook period due to staff redundancies and other adjustment actions. The financing of asylum seeker reception centres will drive up consumption this year.

In recent years local government consumption growth has been historically exceptionally slow. Consumption growth has been slowed not only by moderate price trends, but also by adjustment efforts by local and joint municipal authorities. Based on 2016 budgets, local authorities are looking to continue their fiscal adjustment efforts during the current year. Furthermore, the measures set out in the Government Programme to strengthen municipal finances will curb the growth of local government expenditure over the outlook period. There are, however, substantial expenditure pressures on local government finances as a result of population ageing, which is causing an increased need for services, and as a result of increased immigration.

Expenditure by social security funds consists mainly of social benefits in kind paid out by the Social Insurance Institution Kela (reimbursements for medicines and travel and rehabilitation allowances) as well as wages. Savings measures announced by the Government will reduce expenditure on social benefits in kind in 2016–2017.

Table 7. Consumption

	2015 share, %	2013	2014	2015	2016**	2017**	2018**
		Change in volume, %					
Private consumption	100.0	-0.5	0.6	1.4	1.0	0.8	0.9
Households	95.2	-0.6	0.4	1.6	1.0	0.8	0.9
Durables	8.2	-0.8	1.8	6.0	3.2	1.8	1.8
Semi-durables	7.9	0.3	-0.7	0.2	1.4	0.8	0.8
Non-durable goods	26.6	-0.5	-0.3	-0.2	0.8	0.2	0.3
Services	52.2	-0.8	0.1	1.6	1.1	1.0	1.1
Consumption by non-profit institutions	4.8	-1.6	3.4	-1.8	0.0	1.0	1.0
Public consumption	100.0	1.1	-0.3	-0.9	-0.1	0.0	0.0
Central government	26.7	4.3	-1.2	-2.8	0.7	-0.6	-2.0
Local government	66.1	-0.0	0.2	-0.3	0.1	0.6	0.7
Social security funds	7.2	0.0	-0.8	1.5	-4.8	-3.4	0.8
TOTAL		**0.0**	**0.3**	**0.7**	**0.7**	**0.6**	**0.6**
Individual consumption expenditure in general government		0.1	-0.4	-0.4	-0.4	0.2	0.6
Total individual consumption expenditure		-0.4	0.3	1.2	-0.4	0.2	0.6
Households´ disposable income		2.8	0.5	1.2	1.6	1.6	1.8
Private consumption deflator		2.5	1.6	0.2	0.1	1.1	1.4
Households´ real disposable income		0.3	-1.1	1.0	1.5	0.5	0.4
		%					
Consumption as proportion of GDP (at current prices)		79.5	80.1	80.4	80.0	79.6	79.3
Household savings ratio		2.2	0.5	-0.1	0.4	0.1	-0.4
Household debt ratio [1)]		118.0	122.0	124.9	125.8	126.6	126.8

[1)] Household debt at end-year in relation to disposable income.

1.3.3 Private investment

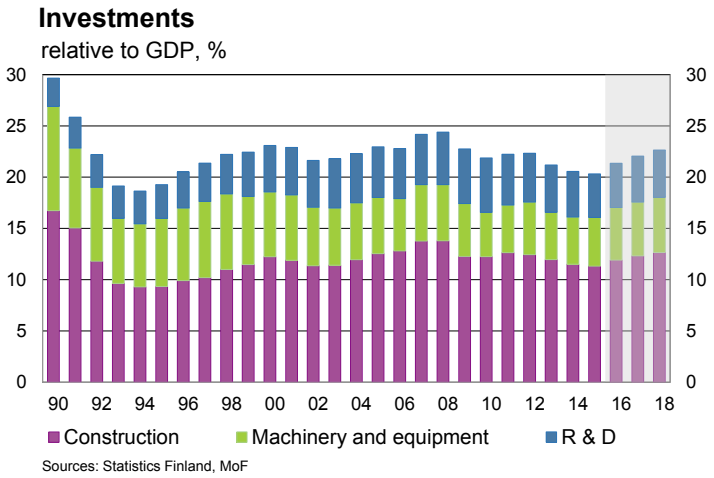
Towards investment-driven growth

Investment rebounded to broad-based strong growth in the last quarter of 2015: annualised quarter-on-quarter growth reached 7%, in the case of private investment as much as 8.5%. Only R&D investment declined towards the end of the year. Investment growth has not increased at such a rate since Q2 2010, when the figures were swelled by a major stimulus package for residential construction. The main driver now is investment in machinery, equipment and transport equipment.

In 2015 gross investment was about one per cent lower than the year before. The figures were significantly revised upwards under the new national accounts framework, both for earlier years and for last year. The revisions mainly concerned production-related building construction investment and, to a lesser extent, civil engineering investment and investment in machinery and equipment.

Updated investment forecasts for 2016–2018 predict healthy investment growth, driving GDP growth annually by 0.7–1 percentage points. It is estimated that investment growth will be fastest this year, reaching around 5%, then slowing to around 3% in 2017. This growth is being driven by major ongoing projects in which 2016 and 2017 will see the most active stages of investment. In 2018 it is projected that favourable global economic trends will boost the acceleration of investment, even though annualised growth will remain slightly slower than the year before.

As private investment has declined for four years in succession, the private investment to GDP ratio has dropped back to the relatively low figure of 16.3%. By the end of the forecast period in 2018, the ratio will pick up to 18.6%.



Sources: Statistics Finland, MoF

High number of residential construction starts offers unexpected surprise

In 2015 the number of new housing starts reached 31,400, over 5,000 more than the year before and well above preliminary estimates and expectations. As a substantial proportion of these starts clustered towards the end of the year, housing investment growth in 2016 will climb to 5%. It is estimated that renovation investment will develop moderately throughout the outlook period, increasing by around 2% a year, as a large part of the building stock is now reaching renovation age.

The projected number of housing starts for 2016 is 28,000. Low interest rates, ease of access to housing loans, migration into growth centres and high levels of activity among property investors will all contribute to drive housing investment. At the moment the main focus of this investment is in growth centres and especially in the metropolitan Helsinki area. It is estimated that the construction of detached houses will gradually plateau this year and next. The annual growth projection for housing investment in 2017 and 2018 is slightly more moderate, but nonetheless solid.

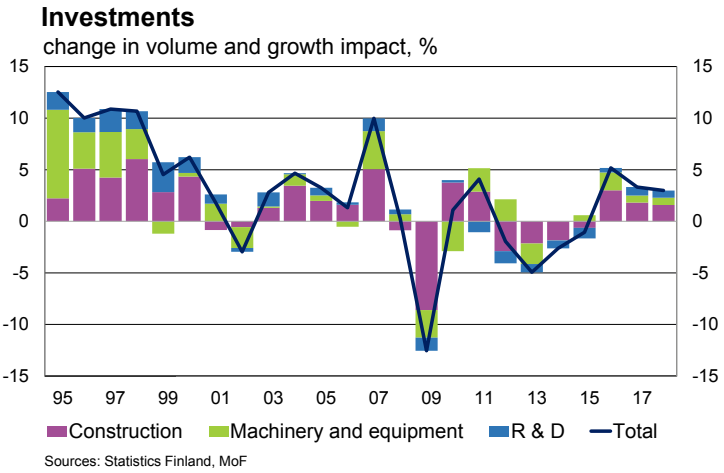
Major projects driving investment in other building construction

Investment in other building construction will increase at an estimated rate of around 8% this year. Growth is forecast for investment in the construction of commercial, industrial and public service buildings. A number of major commercial building projects have started up in 2015 in Helsinki and Tampere, for instance, and these projects are set to continue for a number of years. On the public side, there is much ongoing work to renovate and build new hospitals, and industrial projects are also being launched, including pulp mills, power plants, data centres and waste incineration plants.

Investment in commercial building construction varies widely in value from project to project. In some cases the value per square metre is relatively low; examples include warehouses and industrial buildings. Others can be extremely expensive; hospitals are a prime example. The impact of expensive buildings on the volume of building construction is significantly greater than that of cheaper projects, even if the number of cubic or square metres were the same.

Civil engineering investment benefits from inexpensive oil

Civil engineering investment increased very robustly last year, showing the highest rate of growth since the pre-crisis figures in 2007. Surveys in the civil engineering sector last year produced somewhat contradictory information about the cyclical outlook. The results suggested that price competition has intensified and that there is an increased willingness to tender. Furthermore, the capacity utilisation rate in the last quarter of 2015 was just 71%, the third lowest recorded since 2006. On a positive note, however, the rise in costs has slowed by virtue of low crude oil prices. In addition, strong building construction over the next few years will keep civil engineering investment on a growth path. The forecast for next year predicts accelerating growth, among other things because of the repair debt programme. The outlook predicts stagnating growth for civil engineering investment in 2018.



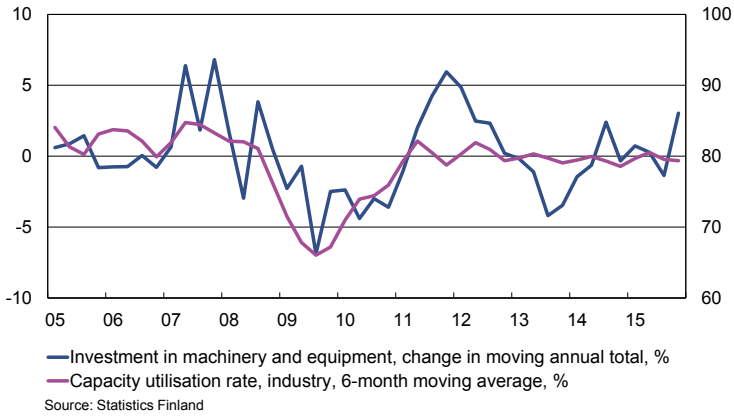
The only major investment project starting up in 2016 is the functional improvement of the railway yard in Helsinki. A number of transport investment projects will reach completion this year and next, but on the other hand many projects that were launched in 2015 will only get properly off the ground this year. The repair debt programme will also contribute to offset investment projects that are winding down. Investment projects are starting up, among others, in the energy supply network, the water supply network, the rail and metro network, and at airports.

Finland finally to see machinery and equipment investments

The Confederation of Finnish Industries (EK) survey in January 2016 confirmed that investment plans in industry were positive for the second time in succession. The survey results indicate that investment in industry and the energy supply sector is projected to show double-digit growth in 2016. Investment in capacity expansion is now expected to account for one-half of total industry investment, while last year the focus was still on replacement investment. During the past six months capacity utilisation rates have also returned to growth in industry, particularly in the forest and metal industries. Investment plans in these industries as well as in the food industry show the strongest increase in 2016.

The outlook predicts that the strong growth of investment in machinery, equipment, transport equipment and weapons systems will continue throughout the current year as well as in first half of 2017. This is attributable above all to the machinery and equipment acquisitions for the Äänekoski bioproduct mill, which are estimated at EUR 720 million, or 7.5% of the total investment item. It is estimated that 70% of the main equipment in the project will be procured from domestic suppliers. In the years ahead the rate of investment in machinery and equipment will slow appreciably, although still remain above its average growth rate, as the favourable global economic trends are expected to bolster demand for exports from Finland.

Investment in machinery and equipment and



Source: Statistics Finland

R&D investment to turn to growth

R&D investment has fallen for five years in a row at an annual rate of around 3.5–5%. The investment survey promises a strong return to R&D investment in industry and in the energy sector. Overall the forecast, which covers R&D investment in the whole economy, predicts only modest change, as central government investment in research and development will fall clearly this year.

Table 8. Fixed investment by type of capital asset

	2015 share, %	2013	2014	2015	2016**	2017**	2018**
		Change in volume,%					
Buildings	44.8	-5.0	-5.0	-2.9	6.2	3.3	3.3
Residential buildings	26.8	-5.3	-6.5	-2.4	5.0	3.0	3.4
Non-residential buildings	18.0	-4.6	-2.7	-3.7	7.9	3.8	3.1
Civil engineering construction	10.9	2.2	5.0	6.6	2.2	3.0	0.8
Machinery and equipment	23.4	-8.7	-0.1	2.7	7.4	2.8	3.0
R&D-investments*	20.9	-3.7	-3.5	-4.7	2.1	4.1	3.4
Total	100.0	**-4.9**	**-2.6**	**-1.1**	**5.2**	**3.3**	**3.0**
Private	80.2	-6.6	-3.1	-1.0	5.8	4.1	4.0
Public	19.8	2.6	-0.6	-1.2	2.7	0.1	-1.3
		%					
Investment to GDP ratio (at current prices)							
Fixed investment		21.2	20.6	20.3	21.4	22.1	22.6
Private		17.0	16.4	16.3	17.3	18.0	18.6
Public		4.2	4.1	4.0	4.1	4.1	4.0

* Includes cultivated assets and intellectual property products

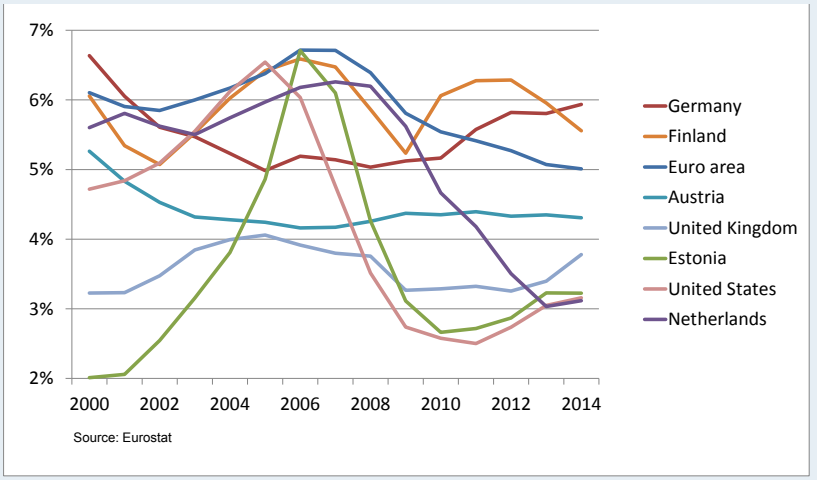
Housing investment in Finland: a brief overview

In 2014 construction investment accounted for around 55% of Finland's gross domestic investment. Investment in residential housing accounted for one-half of this, representing 27% of gross investment. Investment in residential renovation and in new housing construction are at roughly the same level. In Finland housing investment is at a higher level than in virtually all relevant comparative countries. In recent years housing investment has reached around 5–6% of GDP in just four countries: Germany, Belgium, France and Finland.

International comparisons

There is substantial scatter and variation between EU countries in levels of housing investment relative to GDP. In Finland, housing investment has remained at a relatively high level for the past 15 years, coming in consistently at around 5–6% (Figure 1). During the biggest housing bubbles, the figures even reached double digits. This was the case in Finland during the 1990s and in Spain and Ireland just before the financial crisis in 2008.

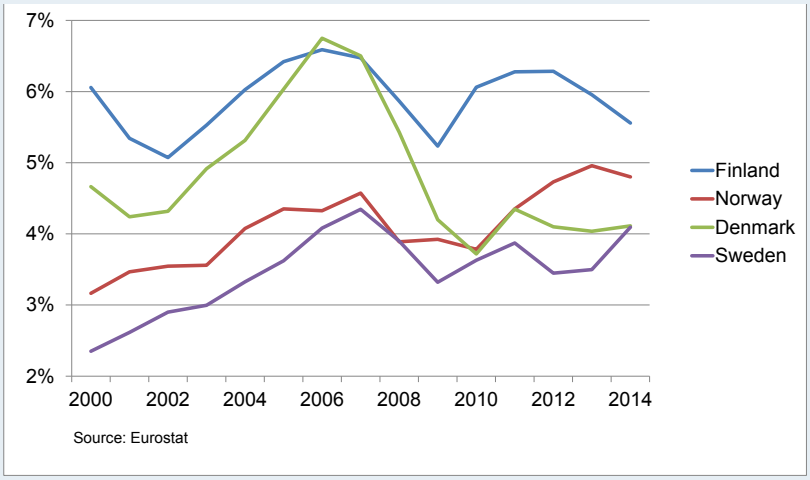
Figure 1. Housing investment/GDP, %



However in many EU countries the bulk of housing investment consists of repairs and renovation, and new residential construction accounts for only a small proportion of the total. In Germany, for instance, renovation accounted for almost 70% of total investment in 2014; in Denmark the figure was even higher. In Finland renovation accounts for roughly half of total housing investment. The proportions vary over time and from country to country because new construction is cyclically highly sensitive.

As can be seen in Figure 2, Finland also has a much higher level of housing investment than the other Nordic countries. In Sweden and Norway, though, favourable economic climates and liberal bank lending policies have contributed to drive up housing investment in recent years. Economic sluggishness in Finland has reduced housing investment, although the investment to GDP ratio is still considerably higher than in the other Nordic countries.

Figure 2. Housing investment/GDP, %



Shortage of housing in growth centres

Finland was a relative late starter in urbanisation, and the process is still gathering pace. There is still a shortage of housing in growth centres to meet these needs. A recent survey by VTT Finland about housing needs through to 2040 and their distribution provides useful illustration of the impacts of urbanisation on housing investment (Vainio, 2016). In a scenario where the geographical distribution of the population follows Statistics Finland's projection, the survey shows that the overall demand averages 25,000 new housing units a year. The second, alternative scenario envisions a future where migration is concentrated in the 14 largest urban regions. It is assumed that growth in these regions will continue along the same trajectory as in 2010–2014, when in an environment of recession urbanisation growth was not particularly high. In this scenario the demand for housing is 30,000 new units a year. One key conclusion from these analyses is that the demand for housing exceeds the projections of recent years as well as current housing production levels.

The overall demand for housing is higher in the urbanisation scenario because population growth in the growing urban regions requires a corresponding increase in the supply of housing. Part of the housing stock is in regions with dwindling population bases, where there will be no primary demand in the future.

The population projection assumes that net immigration will remain at around the same level as in recent years (17,000 persons a year). The impacts of the growing number of asylum seekers since last autumn are not included in the projections, but the VTT study estimates a 30% or 60% increase in net immigration from the levels recorded in recent years. The projected increase in net immigration would increase the need for housing production by 2,500–5,600 units a year.

Compared with the previous estimate of housing demand, production in the Helsinki region in 2010–2014 fell short of the required level by 6,000 dwelling units. Elsewhere, production exceeded the required level by 6,000 units (Vainio et al. 2012). At a national level the housing production volume was more or less on target, but the regional allocation was clearly out of balance. The latest calculation suggests that in the Helsinki sub-region, the total shortfall in housing production is around 20,000 units, the equivalent of almost two years' new residential construction in this region (Vainio, 2016).

Regulation, limitations of supply, scarcity of competition

One of the factors impacting the ratio of housing investment to GDP is the price of housing investment. The Bank of Finland (2016) has compared housing investment prices across the euro area. Investment goods in Finland are amongst the most expensive in the euro area. Prices of transport equipment and construction are particularly high. In 2014 the costs of residential construction in Finland were 22% higher than in the euro area, while in 2003 Finnish price levels were still close to the euro area average. The Bank of Finland study does not directly address the reasons for Finland's high prices, but other studies provide plenty of clues. It is important to note that although well-intended, regulation may drive up costs significantly. From a national economy point of view, a constant increase in costs as a result of building regulations or a shortage of housing supply, for instance, also puts upward pressure on wages and adversely affects competitiveness.

Furman (2015) has studied the macroeconomic effects of regulation in the planning context. He points out that strict land use and planning regulation leads to excessive profits, higher house prices, lower productivity and employment, and increased social inequality. Finland has seen similar problems. A number of studies (e.g. Andersson et al. 2015, UN-Habitat 2014, World Bank 2009, Cheshire and Vermeulen 2008) have shown that high land use restrictions adversely affect the competitiveness of Helsinki and the Helsinki sub-region.

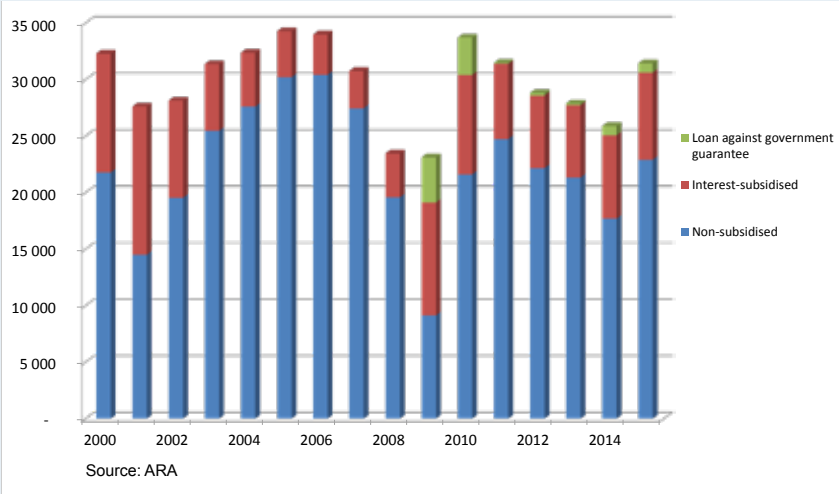
Both international and Finnish studies have shown that an increased supply of building land contributes to increase housing production and to curb housing prices (for a literature review, see Laakso et al., 2011). Laakso has studied the associations between the resources available for land use planning and housing production in Helsinki and the Helsinki sub-region. His findings show how single detached and high-rise construction are dependent in different ways on price trends and how the supply of building plots, for instance, ranges from the market-driven supply for detached houses to the municipal supply of plots for blocks of flats: in the latter case the supply is determined not by price but other factors. Laakso and colleagues conclude that the realistic supply of building plots in Helsinki is extremely limited, especially for blocks of flats, and that this scarcity presents a significant bottleneck for housing production.

Schauman (2014) reviews the international research literature to assess the impacts of restricted supply on housing prices. The review indicates that almost all factors restricting the supply of housing contribute to increase the price of housing and that the effects are significant. In many cases the impact of regulation and restrictions on housing prices can amount to tens of per cents.

Production of state-subsidised rental housing high in Finland

State-subsidised housing production as a proportion of total new residential construction is higher in Finland than in many other European countries. Following the outbreak of the financial crisis, in 2009 more than half of the new housing starts were state-subsidised. Since then the situation has normalised and state-subsidised production has accounted for 20–35% of annual housing production. In the favourable economic climate that prevailed in 2003–2007, market-financed housing construction was strong.

Figure 3. New residential housing starts in 2000-2015



In Sweden, most interest subsidies for social housing production were discontinued in the early 2000s. Following the cuts to these supply-side subsidies, new housing construction declined significantly (Lahtinen et al. 2014). The rate of housing investment has long been extremely low in Sweden and a cause for some concern. Even though that rate has now been rising, housing prices in Sweden have been soaring. In 2014 real prices were up by around 9% and last year by almost 15%. At the same time, Swedish household debt relative to disposable income has climbed to around 175%, compared to Finnish ratio at around 125% (Turk, 2015).

Why did last year's new housing starts come as surprise?

In 2015 the number of new housing starts reached 31,400, over 5,000 more than the year before and well above preliminary estimates and expectations. There still remains some concern over the coverage and timeliness of construction output statistics. Procedures for the compilation of statistics on new housing construction were updated in autumn 2014, but there are still issues that need to be resolved. As a result the picture presented by construction statistics had not been a true reflection of reality, but possibly a significant underestimate. The introduction of a permanent building identifier will in the long term help to provide more accurate data on the building stock and on renovation activities.

The number of residential construction starts in 2015 was up 20% from the year before. Measured in terms of cubic volumes, the picture is rather different. While the construction of smaller blocks of flats has increased sharply in response to strong demand from real estate funds, and while starts of detached houses continued to fall, the volume of housing starts measured in cubic metres was up by just 9% from the year before.

The number of residential construction starts was exceptionally high in the last quarter of 2015. Likewise, the number of reservations for state-subsidised dwelling units was clearly higher than in earlier years, reaching 8,600, an increase of 17%. One reason was the discontinuation at year-end 2015 of stimulus for state-subsidised housing production. This came at a cyclically opportune moment in that residential housing starts provided a much needed boost to an otherwise slow economy.

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1.3.4 Public investment

Public investment in 2015 was unchanged from the year before, according to preliminary national accounts figures. Sales of real estates plunged investment by employment pension institutions deeply into the red. State real property holdings were also sold off, but overall central government investment increased marginally from the year before on the back of infrastructure projects and R&D investments. High levels of general government deficit will continue to hamper investment opportunities in the years ahead. However the public investment to GDP ratio is not expected to fall.

The Government's EUR 600 million investment in overhauling the transport infrastructure in 2016–2018 will contribute to maintain central government investment. Overall, however, there will be hardly any increase in public investment because of the scarcity of new infrastructure projects and because central government R&D investment is declining. Investment in weapons systems may increase to some extent.

Following a sustained period of growth, local government investment expenditure no longer increased last year. Local government investment will nonetheless remain high over the outlook period as increasing demand for services and housing and infrastructure expansion in growth centres will require substantial investment. A growing debt burden will lead local governments to prioritise their investments, however.

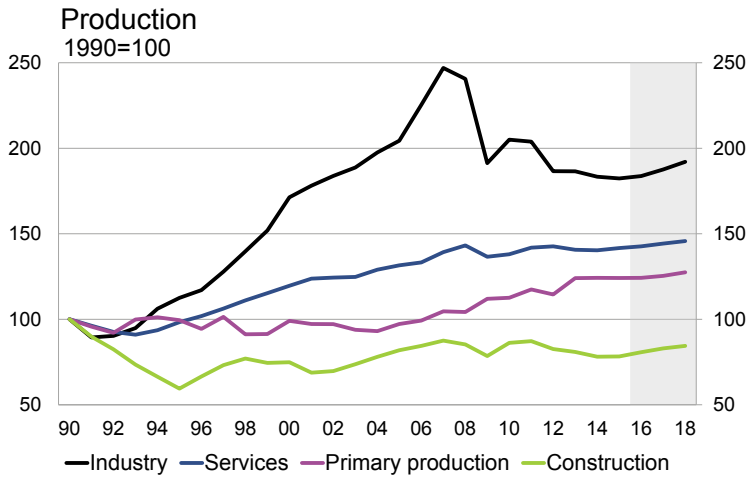
1.4 Domestic production

1.4.1 Total output

Economic growth gradually gaining traction

Output turned to slight growth last year. On average gross value added for the economy in 2015 was 0.6% higher than the year before, marking the end of three years of declining output. That said, quarter-on-quarter growth in output was only recorded in the first half of the year. Annual growth was mainly driven by private service branches, particularly by ICT industries, financial intermediation and real estate services. Public service production and wholesale and retail trade declined, as did industrial production and primary production. Services are continuing to make up a greater part of the economy, at the same time as the share of secondary production is falling. Furthermore, sluggish demand for intermediate goods and slow growth of purchasing power have adversely affected production in the domestic market. Gross value added is still 8.5% lower than before the financial crisis at year-end 2007.

Despite last year's growth, major ongoing restructuring in the economy has meant that output levels still lag well behind those recorded before the financial crisis, and the resources of the economy remain largely underutilised. Furthermore, production capacity has decreased in recent years as a result of plant closures and inadequate replacement investment. Investment in production-related fixed assets has decreased for three years in succession. The number of people out of work increased by 8.6% last year, and the unemployment rate climbed to 9.4%. It is thought that unemployment is largely structural and

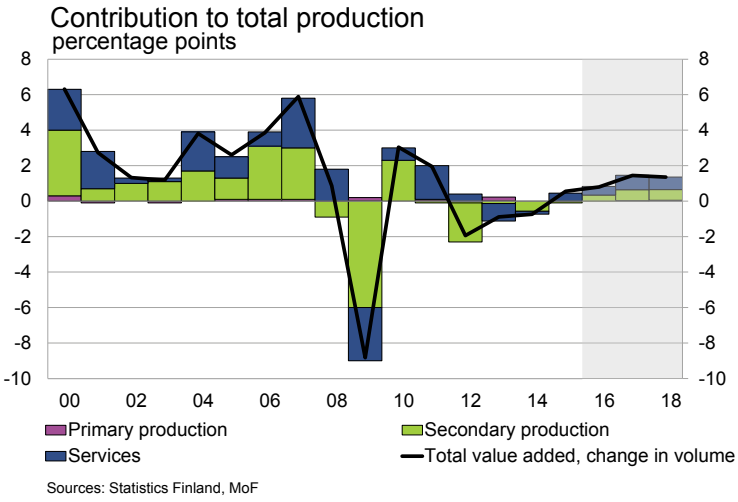


Sources: Statistics Finland, MoF

that employment needs vary from branch to branch. The number of hours worked in the national economy fell by 0.1%, and therefore labour productivity improved only marginally by 0.7%. Labour productivity has been poor since the financial crisis, continuing to remain 3% lower than before the crisis. Part of the reason for this lies in industry restructuring as the contribution of high-productivity sectors to total output has declined.

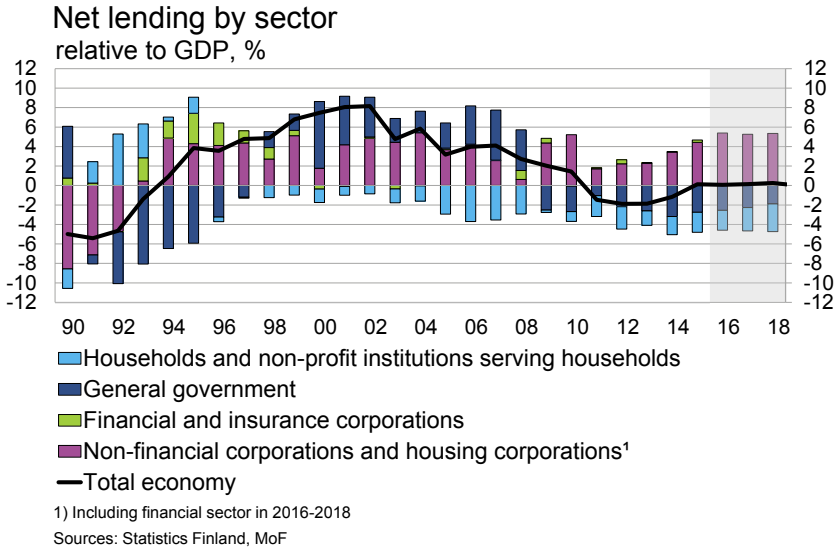
Prospects for output growth remain subdued, but are slowly improving. With strengthening domestic and export demand, it is anticipated that gross value added will edge up by three-quarters of a per cent this year. In 2017 growth will pick up to 1½%, and remain at that rate in 2018. The period of strong cyclical growth in Finland's main export market in Europe has already begun to wane, but it is nonetheless predicted that growth will continue at a steady rate. This will bolster industries producing investment goods. Growth is not expected to accelerate in emerging economies either, but economic activity here will remain stronger than in the main market areas – with the exception of Russia, which is a major market for Finland. Together with the falling external value of the euro in relation to the dollar, this will create stronger demand and bolster the position of export companies. It will take some time to turn around the years of decline in cost competitiveness, but the moderate wage rises are a step in the right direction. Falling energy and other raw material prices will also ease the situation of companies that use these inputs in their production.

Private service branches maintained economy activity throughout 2015, and it is projected that these business services and new economy services will continue to drive economic growth over the years ahead. Exports are expected to recover with the rebound of export demand, and this will provide the biggest boost to industrial production, more than 70% of which is exported. The majority of services produced are used by the business sector, and therefore increasing domestic output will also increase production in services branches. Household purchasing power will show only moderate improvement over the outlook period, and therefore private consumption demand will not significantly increase service production either this year or next. Based on the number of planning permissions



granted and last year's large number of building starts, it is projected that new building construction will constitute a major pillar of the economy in 2016. Furthermore, building renovation activity will continue to increase throughout the outlook period.

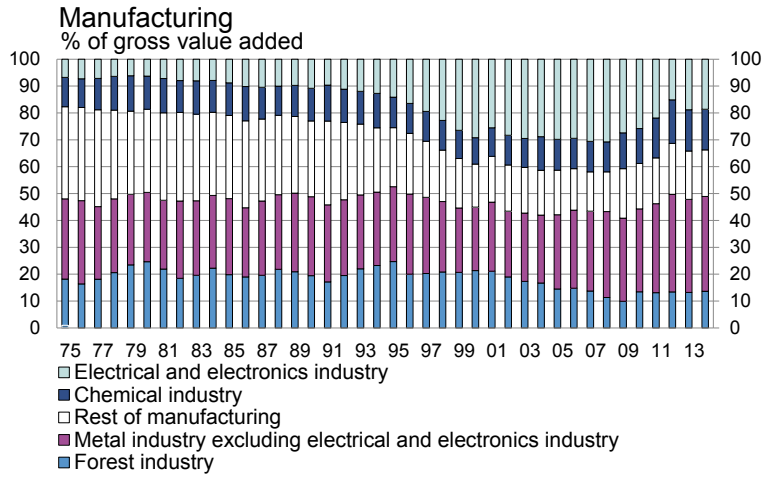
Despite the slight pick-up in growth, the forecast risks remain skewed to the downside. A one-sided production structure that is tilted towards raw materials and investment goods is delaying the onset of growth, even though world trade has gathered momentum since the financial crisis. Furthermore, under the conditions of escalating international competition some goods categories have not demonstrated sufficient cost competitiveness to bring in export orders. A more diverse goods structure and stronger cost competitiveness would improve the prospects for output growth in the longer term.



1.4.2 Secondary production

Demand from export markets outpacing industry output growth

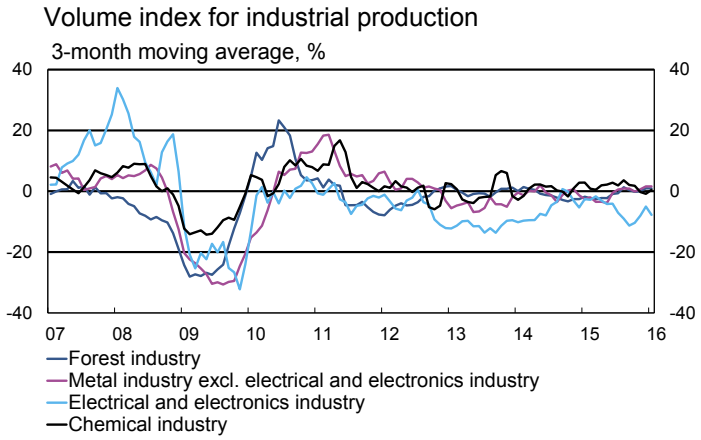
Industry was in recession for a fifth consecutive year in 2015. Value added fell by 0.6%, although the slide came to halt in the last quarter of the year. The metal industry was the only main sector of the economy that posted some growth, among other reasons on the back of orders received in the shipbuilding industry. Output continued to contract in the forest, chemical and electronics industries. Forest industry production was down 0.5%: even though pulp and cardboard production both increased, demand for paper is trending to fall worldwide. It is estimated that world industrial production increased by close to 2% in 2015, and therefore it appears that Finland's share of world industrial value added continued to shrink last year.



Source: Statistics Finland

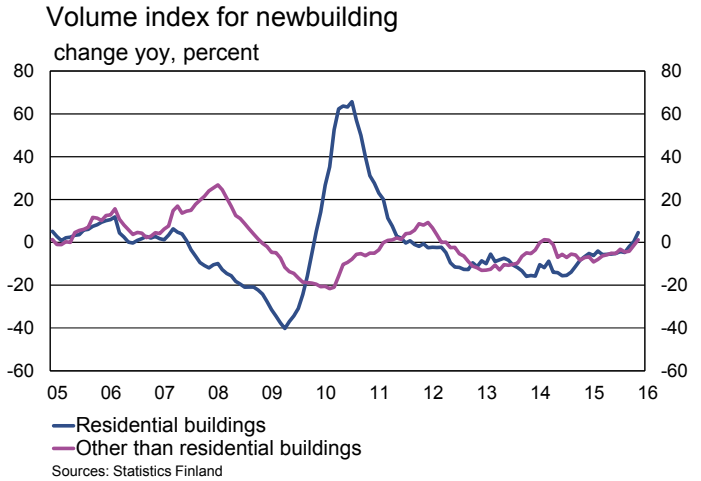
The outlook for industrial production remains subdued. Business tendency surveys suggest that industrial companies have seen no improvement in their outlook during the first months of the year. It is projected that output growth will be muted as the value of new orders is continuing to fall and order books are lower than normal. A large part of the companies responding to the Confederation of Finnish Industries EK survey were still constrained by inadequate demand, although that proportion has no longer increased in the first months of the year. The turnaround will be delayed until the second half of the year, and businesses are continuing to adjust their finished products inventories according to the lowered level of demand. Competition has eased somewhat, at least in the non-EU market. In the EU internal market, by contrast, competition is tough. The potential export demand for Finnish production has been increasing since 2013, and the continuing rebound of export demand will see industrial production turn to slow growth this year. The prospects of growth are strongest in the forest and chemical industries, which have the largest number of companies expecting to post growth. The metal industry, which posted positive growth last year, is being held back by low order books over the short term. The food industry, for its part, desperately needs new markets to offset its losses in Russia. Total industry output is pro-

jected to increase only marginally this year by three-quarters of a per cent, but in 2017 and 2018 growth will become more broadly based and accelerate to over 2%. However the growth rate is expected to remain far more moderate than in the years preceding the financial crisis, and in 2018 output will still be more than 20% lower than the pre-crisis figures.



Construction sector to return to growth on the back of residential construction

Construction output turned to growth last year. After three years of decline, value added in construction was up by 0.2% in 2015. Growth took hold early in the year, but this was not yet a broad-based trend: performance varied across different categories of construction. The volume of new building construction increased in the category of public construction as well as in the construction of business and office premises. Residential construction also turned to growth towards the end of the year, although this was mainly attributable to the construction of new blocks of flats. Warehouse and industrial construction began to fall towards the end of the year. Despite the turnaround value added in construction remains 11% lower than before the financial crisis.



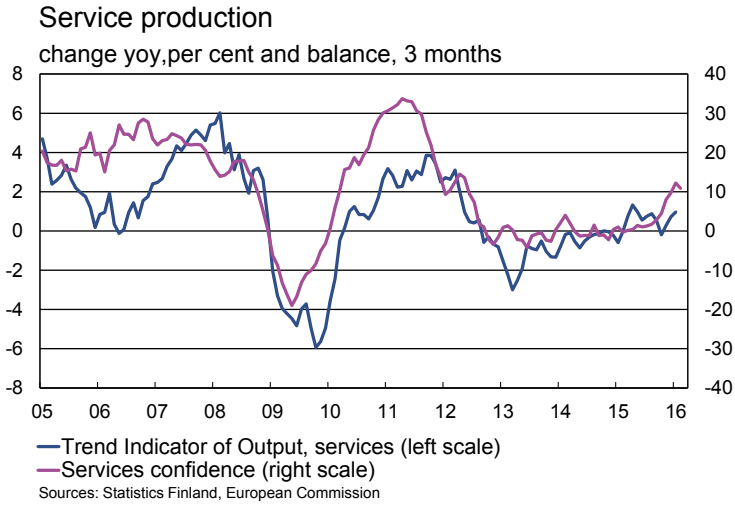
It is predicted that, together with business services, construction will make the strongest contribution to output growth in 2016. Construction will be boosted by the increased number of planning permissions granted for residential, business and office premises. Furthermore, it is expected that orders will continue to increase over the next few months. On the other hand, construction is being held back to a much greater extent than industry or service branches by the shortage of skilled labour. Renovation is continuing to increase, and therefore value added in the construction sector as a whole will increase by 3% this year. In 2017 the growth rate will remain unchanged at around 3%, and the slowdown of non-residential building construction will slow the growth of construction output to around 2% in 2018. Despite this growth, the volume of construction output in 2018 will be some 4% lower than the peak figures of 2007.

1.4.3 Services

Services driving domestic economic growth

The recession in services ended in 2015. Value added in services increased by 0.9%, marking the end of two years of recession. Growth was strongest in information and communication services, financial and insurance activities as well as in real estate activities. Public service provision and trade, by contrast, continued to decline. Value added from service production accounted for 71.1% of the national value added last year, which is still some three percentage points less than the euro area average. Nonetheless this share has increased by 7 percentage points over the past 10 years, so that Finland has been closing the gap. The biggest branches have been public services, real estate services and trade.

The outlook in service industries has improved since the end of last year, and expectations of sales growth have become more widespread. Sluggish demand is a much lesser obstacle to growth in service branches than it is in industry and construction. Rising sales prices are expected to lead to improved profitability early in the year. A shortage of skilled labour is hampering growth for some service companies, especially in the ICT and real estate branches.



The bulk of services produced are used in the business sector, and therefore improving business output has a beneficial impact on output in services and helps to offset the muted demand for consumer services. Furthermore, the digitalisation of the economy is set to increase demand for information services in the long term. According to the expectations of businesses themselves, growth prospects are strongest precisely in information and communications as well as in financial services. These branches have a much larger number of companies that expect to see an increase in sales than other service branches. The growth of R&D activities will also support the growth of turnover in business services. Growth prospects in trade, on the other hand, are depressed by the weak development of purchasing power. In 2016 service output will increase by less than one per cent due to overall sluggishness in industry. In 2017 and 2018 service output growth will accelerate to around one per cent, the average growth rate in the 2000s. Unlike other main sectors of the economy, service production will exceed the pre-crisis level in 2018.

Table 9. Production by industry

	2015 share, %[1)]	2013	2014	2015	2016**	2017**	2018**	Average 2015/ 2005
		change in volume, %						
Industry	19.9	0.0	-1.7	-0.6	0.8	2.1	2.4	-1.1
Construction	6.2	-2.0	-3.5	0.2	3.1	2.7	1.8	-0.5
Agriculture and forestry	2.7	8.3	0.1	-0.1	0.1	0.9	1.7	2.5
Industry and construction	26.1	-0.5	-2.1	-0.4	1.3	2.3	2.2	-0.9
Services	71.1	-1.4	-0.2	0.9	0.7	1.2	1.0	0.7
Total production at basic prices	100.0	-0.9	-0.7	0.6	0.8	1.4	1.4	0.3
GDP at market prices		-0.8	-0.7	0.5	0.9	1.2	1.2	0.4
Labour productivity in the whole economy		0.5	0.0	0.7	0.4	1.0	1.0	0.3

[1)] Share of total value added at current prices.

Decomposing the forecast into shock contributions

Cyclical fluctuations around the economic growth trend are triggered by shocks that are transmitted into the economy either more or less instantly or after some period of delay. In the absence of new shocks, the effect of the initial shock will fade over time and the economy will return to its steady state path. Shocks have both direct and indirect effects on real and nominal variables. These effects on observed variables drawn from quarterly accounts can be described by way of a decomposition of shock contributions.

The Kooma model developed by the Ministry of Finance Economics Department belongs to the family of New Keynesian macroeconomic models. It is designed for the analysis of cyclical fluctuations, and it can be used to identify statistically unobservable shocks.

This box decomposes the forecast presented in this report into shocks. The data for the model simulation is obtained by calculating the deviation of each observed variable from trend growth using a Hodrick-Prescott filter. In other words, the figures do not illustrate the level or the growth rate of the variables concerned, but rather the extent to which they deviate from the HP trend and how this deviation breaks down into shock contributions. The decomposition indicates how the development predicted or observed on the basis of the simulation model assumptions is explained as a combined effect of different shocks. Positive observations indicate a level of observed variable that is above the HP trend, negative observations are below the HP trend. No conclusions can be drawn from the deviation regarding changes in the level or the growth rate of the variable.

The Kooma model includes 23 observed variables, each with a counterpart in the quarterly accounts or other statistical publication. In addition, the model includes 32 shocks derived from economic theory. Each shock impacts all variables, but the magnitude of the contribution varies depending on the significance of the shock to that particular variable. In a linear model[1] the shocks can be computed using a Kalman filter. Most of the shocks in the model, such as the technology and preference shock, are unobservable. Also included in the model are shocks associated with observed variables, such as the price of oil, the currency exchange rate and shocks associated with foreign economic variables. For ease of interpretation the shocks are here divided into six groups: technology, wage and price formation, consumer preferences, labour supply, and the residual category of "others".

Figure 1 shows the decomposition of shock contributions to GDP trend in 1999–2019. Before the financial crisis, when economic growth was at its highest, production growth was primarily explained by the technology and price shock. Finland benefited from advances in technology and businesses were in the position to charge good prices for their products and services.

The financial crisis was most clearly reflected in the export demand shock in the residual category of "others", since it was first and foremost through foreign economic variables that the crisis impacted Finland. The overall productivity shock also turned negative after some delay. In particular, formerly profitable production lines and services exited industry. The productivity shock only becomes growth-supportive at the very end of the forecast horizon, where the economy is performing in line with the medium-term forecast.

The sluggish rate of economic growth both recently and in the early part of the outlook period is explained by low total factor productivity, while the relatively slow rate of wage growth is reflected in a production-supportive shock. The slight acceleration of economic growth towards the end of the outlook period needs to be backed by the contribution of an increasing labour supply. Accelerating economic growth is also supported by continued slow wage growth and low inflation.

Figure 2 shows the decomposition of shock contributions to earnings levels as indicated by the index of wage and salary earnings. As a variable balancing labour market demand and supply, the development of wages involves numerous positive and negative shock contributions, even though wages show only little cyclical variation and deviations from the HP trend are minor. In 2013–2016 the rise in the earnings level is below the HP trend and earnings have increased more slowly than the model's wage equation would have predicted. During this time

[1] The Kooma model is log-linearised around its steady state. The linearity of the model thus follows from an approximation.

the shock contribution describing wage earners' bargaining power takes on high negative values and explains almost completely the moderate development of wages. The price shock explaining the low rate of inflation, i.e. the shock describing the contestability of the goods markets contributes to slow wage growth. At the same time, supply-side shocks such as the technology shock and the labour supply shock appear as factors driving up wages. At the end of the outlook period, when the rise of earnings levels accelerates especially in the medium-term forecast, the growth of wage earners' bargaining power and the decrease in the negative contribution of supply shocks describe the earnings level approximating its trend growth path.

Figure 1. Decomposition of shock contributions to GDP growth

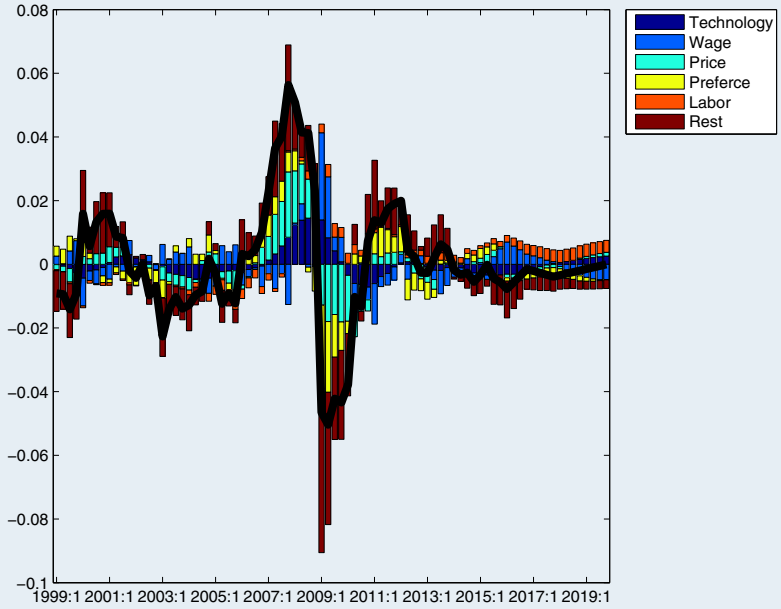
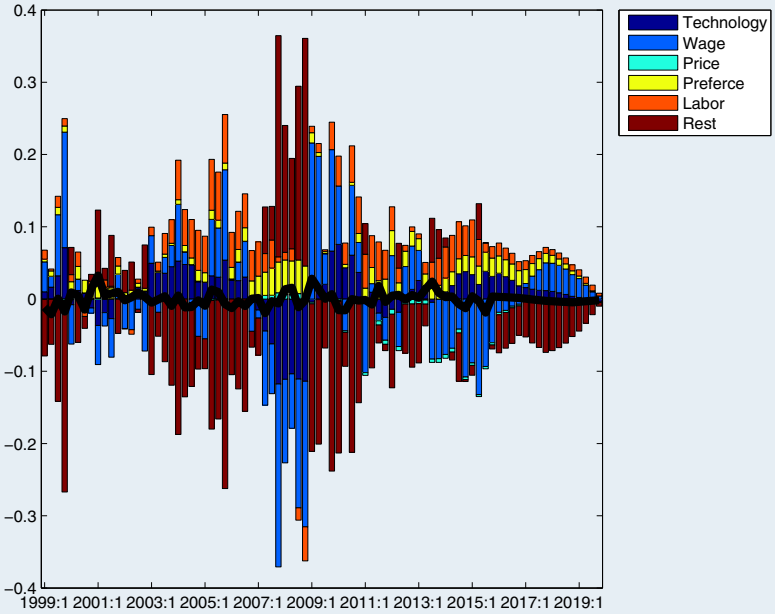


Figure 2. Decomposition of shock contributions to earnings level

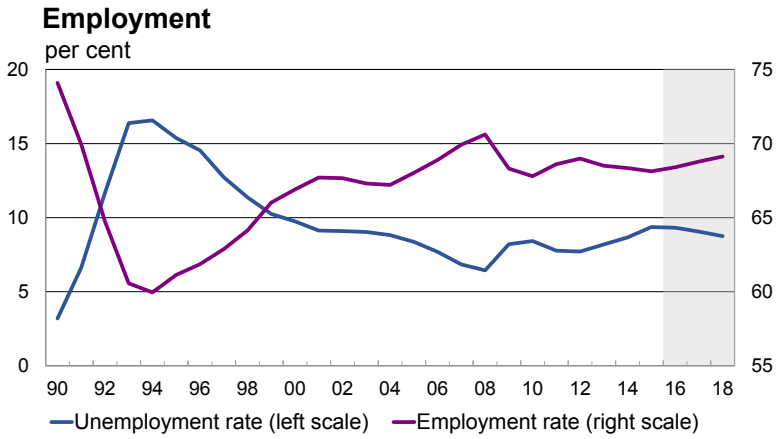


1.5 Labour force

Unemployment growth comes to halt

Employment fell by 0.4% last year and hours worked declined by 0.2%. As the Finnish economy emerges from a sustained period of recession and economic activity continues to rebound especially in construction industry, employment will begin to slowly edge up in 2016. The number of job vacancies has been rising in recent months, which also indicates that employment prospects are improving.

Unemployment growth has come to at least a temporary halt, according to both Statistics Finland's sample-based Labour Force Survey and employment service statistics compiled by the Ministry of Employment and the Economy. In 2015 the unemployment rate climbed to 9.4%, and in January this year the trend of the unemployment rate was unchanged. This year's cautious economic growth will do little to reduce the number of people out of work as it is expected that some of the disguised unemployed will return to actively searching for work with the increasing number of job vacancies. The projected unemployment rate for 2016 is 9.3%.



Unemployment rate = Unemployed / Labour force (15-74 yrs)
Employment rate = Employed / Population of working age (15-64 yrs)

Sources: Statistics Finland, MoF

As GDP growth picks up in 2017 and 2018, employment will continue to improve and unemployment will begin to slowly edge down. Nonetheless unemployment will remain high throughout the outlook period. In 2017 and 2018 it is predicted that employment will increase by 0.4% a year. The unemployment rate is expected to fall back to 9% in 2017 and further to 8.7% in 2018.

Long-term and structural unemployment have continued to grow. In January the number of people who had been out of work for more than a year was 120,000, some 19,000 more than one year earlier. According to the Ministry's employment service statistics the number of structurally unemployed people was 217,000, or 16,000 more than the corresponding figure last year. In recent years long-term unemployment has increased in all age groups, but most of all among those aged 25–54. Even under improving cyclical conditions the high level of structural unemployment will slow the decline in the unemployment rate.

Apart from the lingering weakness of the economy in general, another obstacle to an improvement in the employment situation is presented by regional and occupational mismatch problems between unemployed job seekers and job vacancies. Both Ministry and Statistics Finland data indicate that the number of job vacancies increased slightly last year, but this has not reduced the number of unemployed persons.

Figures for unemployed job seekers registered with employment offices and Statistics Finland's sample-based Labour Force Survey give a slightly different picture of the level and development of unemployment. According to Statistics Finland the number of unemployed persons last year averaged 252,000, while figures published by the Ministry of Employment and the Economy were much higher at 351,900.

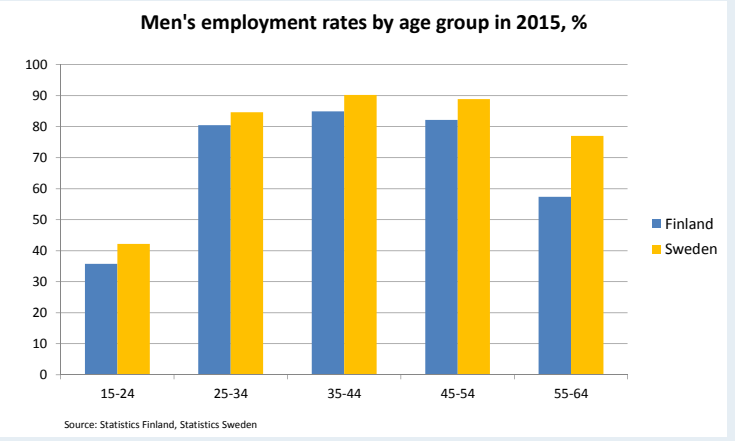
At the moment the discrepancy between the unemployment figures reported by Statistics Finland and the Ministry of Employment and the Economy is further accentuated by the fact that some unemployed people have given up their active search for work because of the weak economic situation. The Statistics Finland concept of unemployment is based on the criterion of active search for work, and the inactive unemployed are classified in the Labour Force Survey as 'disguised unemployed'. The differences between the two sets of figures are also explained by changes in statistical methods and legislation.

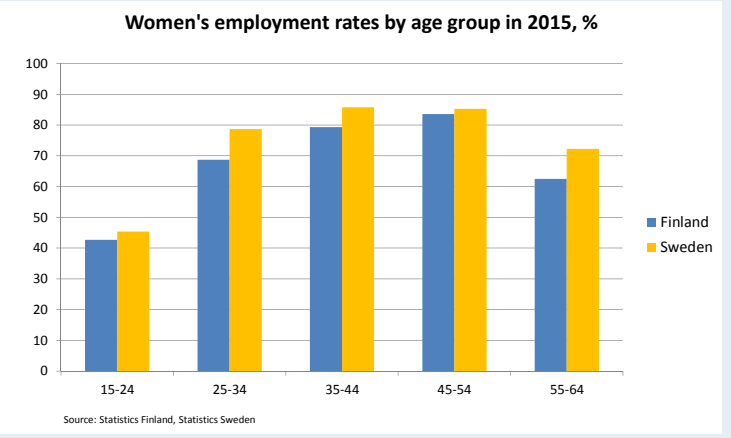
Table 10. Labour market

	2013	2014	2015	2016**	2017**	2018**
	annual average, 1,000 persons					
Population of working age (15-74 yrs)	4 087	4 096	4 102	4 107	4 116	4 128
change	12	9	6	5	9	12
Population of working age (15-64 yrs)	3 508	3 491	3 476	3 463	3 452	3 443
change	-16	-17	-15	-13	-11	-9
Employed (15-74 yrs)	2 457	2 447	2 437	2 444	2 454	2 463
of which 15-64 yrs	2 403	2 386	2 368	2 370	2 375	2 380
Unemployed (15-74 yrs)	219	232	252	251	244	236
	%					
Employment rate (15-64 yrs)	68.5	68.3	68.1	68.4	68.8	69.1
Unemployment rate (15-74 yrs)	8.2	8.7	9.4	9.3	9.0	8.7
	1,000 persons per annum					
Immigration, net	17	18	12	12	12	12

Finnish and Swedish employment rates: a comparison by age groups

One of the Government's key objectives is to increase the employment rate. The Finnish employment rate is lower than in neighbouring Sweden especially among women aged 25–34 and among men aged 55–64.





A comparison of employment rates suggests that in Finland, women at the family formation age stay at home with their children longer than women in Sweden. A significant incentive in this regard is the length of time for which family allowances are payable. In Finland, home care allowance is payable until such time as the family's youngest child reaches three years of age. The allowance is paid both for the youngest child and for other children in the family. It is likely that the home care allowance encourages women in Finland to remain outside the labour market for several years. In Sweden, most mothers return to work after the expiry of 16 months of parental allowance. The discontinuation of the home care allowance or a shorter allowance period could help to bring the employment rate among Finnish women aged 25-34 closer to the other Nordic countries.

The mechanism known as the unemployment pathway to retirement, under which employees are eligible to receive extended earnings-related unemployment security, provides a financially secure way for employees aged 59–62 to retreat from work before they have reached retirement age. Employees opting for the unemployment pathway are most typically men working in the private sector. After being laid off, the employee is eligible to receive earnings-related unemployment security for 500 days (in the future 400 days). If by the end of this period the employee has turned 61, he or she is eligible to receive extended earnings-related unemployment security until their pension begins.

This arrangement makes it less painful for the employer to lay off employees and encourages employees over 59 to exit the labour market permanently if for whatever reason the idea of working no longer appeals to them. Recently long-term unemployment has risen to a much higher level in the age group over 59 than in the age group 55–59, suggesting that large numbers are taking advantage of the unemployment pathway to retirement. Discontinuing this mechanism would force employers and employees to work together to try and find ways in which to prolong employment careers through to retirement age proper.

In Sweden there is no corresponding mechanism to extend earnings-related unemployment security. Instead, Sweden has legislation in place which establishes the so-called last-in-first-out principle: in the event of layoffs those employees who were hired last must be laid off first. This provides important protection for older workers against dismissals and so improves their employment. In this situation it is likely that a younger employee will have less difficulty finding a new job than someone who is 60 or over. A comparison of employment rates in the age group 55–64 seems to suggest that the Swedish model works better.

Employed parents with small children and those aged 59 or over work part-time more often than average. However the number of people working part-time in Finland is relatively low by international comparison. The numbers working part-time as a proportion of the population of working age is clearly higher in Sweden, Germany and other countries with high employment rates. If Finland is to achieve a significant improvement in its employment rate, then part-time employment will probably have to be increased in the age groups mentioned above. In a situation of weak labour demand, lengthening full-time employees' hours of work may temporarily even reduce the employment rate.

1.6 Incomes, costs and prices

1.6.1 National income

National income refers to domestic primary income, i.e. employee compensations, taxes on production and imports net of subsidies, operating surplus and property income. In 2015 nominal net national income growth increased by 0.9%, compared with 1.9% in 2014. This slowdown was due to the slower growth recorded in net operating surplus figures, which describe levels of business profitability. In 2015 the growth rate was 0.8 %, whereas in 2014 strong growth in property income and entrepreneurial income at 7.3% contributed to drive national income growth.

Among the components of national income, employee compensations in 2015 increased by around 1% from the previous year, compared with growth of just 0.2% one year earlier. The slower growth rate in 2014 is explained by the 0.2% fall in social security contributions paid for the benefit of employees. In 2015 the sum total of social security benefits increased by 1.9% and the wage bill was up 0.8%. Revenue from production and imports was up 0.9%, at the same rate as the year before.

Employee compensations as a proportion of national income remained at the same level as in 2014 at around 60%. Similarly, net property and entrepreneurial income as a proportion of national income showed no change from 24%. The proportion of employee compensations has increased clearly from the figure of around 56–57% in the early 2000s. However the current figure is still a long way away from those recorded in the recession in the early 1990s. The peak figure was recorded in 1991 at 74% of national income.

It is expected that property and entrepreneurial income growth will come in at 1.8% this year and to accelerate further in 2017 and 2018, which will contribute to drive national income. Taxes on production and imports net of subsidies will also continue to increase over the outlook period with the higher rates of indirect taxation.

During the current year it is predicted that wage bill growth will accelerate from the previous year, as employment is projected to return to growth in 2016. The wage bill will continue to grow in 2017 and 2018, but moderate wage development means the rate of growth will slow. It is predicted that employee compensations as a proportion of national income will fall only marginally towards the end of the outlook period, so there will be no major changes in the functional distribution of income over the next few years.

Table 11. Disposable income

	2015 share, %	2013	2014	2015	2016**	2017**	2018**	On average 2015/2005
		change, %						
Compensation of employees	60.4	0.9	0.2	1.0	1.7	1.4	1.5	2.8
Wages and salaries	48.9	0.9	0.3	0.8	1.5	1.4	1.5	2.9
Employers' contributions to social security schemes	11.5	1.0	-0.2	1.9	2.4	1.4	1.5	2.4
Property and entrepreneurial income, net	23.6	0.8	7.3	0.8	2.2	4.2	5.1	0.5
Taxes on production and imports minus subsidies	15.9	4.8	1.0	0.5	1.4	0.9	1.1	3.1
National income	100.0	1.5	1.9	0.9	1.8	2.0	2.3	2.2
Disposable income		1.0	2.0	1.0	1.8	2.0	2.3	2,2
Gross national income, EUR bn		204.0	207.4	209.4	213.0	218.0	223.9	

Table 12. Index of wage and salary earnings and labour costs per unit of output

	2013	2014	2015	2016**	2017**	2018**	On average 2015/2005
	change, %						
Index of negotiated wage rates	1.4	0.7	0.6	0.5	0.4	0.5	2.1
Wage drift, etc.	0.6	0.7	0.6	0.7	0.6	0.7	0.8
Index of wage and salary earnings	**2.1**	**1.4**	**1.2**	**1.2**	**1.0**	**1.2**	**2.9**
Real earnings[1)]	0.6	0.4	1.5	0.9	-0.3	-0.3	1.1
Average earnings[2)]	1.6	1.3	1.4	1.1	1.0	1.2	2.8
Labour costs per unit of output[3)]							
whole economy	1.8	0.9	0.5	1.0	-0.1	0.2	2.5

[1)] The index of wage and salary earnings divided by the consumer price index.

[2)] Computed by dividing the national wage bill by the number of hours worked by wage and salary earners. The figures are affected by structural changes in the economy.

[3)] Compensation of employees divided by gross value added in volume at basic prices.

1.6.2 Wages and salaries

Nominal earnings, as measured by the index of wage and salary earnings, increased by 1.2% last year. The standard wage rate was up 0.6%, and other factors pushed up the wage index by 0.6%.

In 2016 earnings will develop in line with the new wage settlement negotiated by the social partners in June 2015. The Pact for Employment and Growth will push up the standard wage rate on average by 0.5%. The forecast for the development of earnings is based on the assumption that the contribution of factors other than increases to the standard wage rate will drive up earnings by 0.7% a year. Therefore it is predicted that nominal earnings will rise by 1.2% in 2016.

It is thought that earnings will continue to rise moderately at a rate of 1.0% in 2017 and 1.2% in 2018. This is clearly slower that the average rate of growth in the 2000s, which is well in line with the current sluggish economy and subdued employment trends.

1.6.3 Consumer prices

In 2015 consumer prices dropped by an average of –0.2%, as measured by the national consumer price index. This is highly exceptional: it is the first time that average annual inflation has been negative since 1955. Several factors combine to explain the slow rate of consumer price inflation, but the fall in the world market price of oil is particularly significant. Energy prices were down by around 6% in 2015. Goods and food prices also fell. As in earlier years, consumer inflation was mainly driven by higher service prices, which increased by almost 2%. The harmonised consumer price index, which in contrast to the national index does not include owner-occupied housing or interests, fell by 0.2% in 2015.

The inflation forecast for the current year is 0.3% as measured by the national consumer price index. In other words, it is anticipated that consumer prices will remain more or less unchanged from last year. Inflation is slowed above all by the price of crude oil, which continued to slide in January, but since then has begun to edge up slightly. It is assumed that the average price of oil will be around 35 euros a barrel in 2016, compared with the figure of just under 48 euros in 2015.

The price of energy is not the only factor curbing inflation. As in 2015, the daily consumer goods sector announced early in the year that prices of selected foodstuffs will be reduced in response to stiffening competition. Weak demand and lowered import prices are also impacting goods prices. Furthermore, second-round effects of falling oil prices are contributing to hold the prices of other goods in check. It is projected that service prices will post slower than average growth this year at around 2%.

Consumer price index and index of wage and salary earnings
change from previous year, %

Sources: Statistics Finland, MoF

It is estimated that tax hikes will push up inflation by 0.6–0.7 percentage points in 2016. Indirect tax hikes adding to inflationary pressure include the increases to the annual vehicle tax, tobacco tax and fuel oil tax, but on the other hand the reduction of the motor car tax will act in the opposite direction. The decision to increase the annual ceiling for social and health care client fees by almost 30 per cent will increase inflation by some 0.2 percentage points, taking account of the latest information about how these increases will be put into effect in each municipality. In addition, reimbursements for health care expenses from the Social Insurance Institution Kela will be cut and an initial deductible of 50 euros introduced for reimbursements for prescription medicines, which will also contribute to drive inflation. Without the effects of these tax hikes, consumer prices would fall in 2016.

Inflationary pressures will remain lower than usual over the next few years as there are idle resources in the economy and the output gap is still clearly negative. It is expected that the national consumer price index will increase by 1.3% in 2017, and by 1.5% in the last year of the forecast horizon in 2018. Oil prices will edge up over the outlook period and accelerate inflation. The forecast is also impacted by assumptions of moderate wage increases, a weakening euro and low but gradually rising interest rates.

In 2015 the euro area inflation rate in terms of the harmonised consumer price index came in at 0.0%, and prices have continued to rise very slowly in early 2016. Falling energy prices have slowed inflation in the euro area, too, but other major items in the consumer price basket have contributed to accelerate inflation. The latest ECB forecast is that euro area inflation will rise to 0.1% in 2016, to 1.3% in 2017 and 1.6% in 2018. The comparative MoF growth forecasts for Finland based on the harmonised consumer price index are 0.1% in 2016, 1.1% in 2017 and 1.4% in 2018, so it is expected that prices in Finland will continue to rise somewhat more slowly than in the euro area on average.

Table 13. Price indices

	2013	2014	2015	2016**	2017**	2018**	On average 2015/2005
	change, %						
Export prices[1)]	-1.1	-0.8	-1.0	-0.4	1.1	1.3	0.3
Import prices[1)]	-1.7	-1.6	-3.2	-1.2	1.2	1.4	0.8
Consumer price index	1.5	1.0	-0.2	0.3	1.3	1.5	1.7
Harmonised index of consumer prices	2.2	1.2	-0.2	0.1	1.1	1.4	1.9
Basic price index for domestic supply	0.2	-1.3	-3.2	-0.7	1.2	1.5	2.0
Building cost index	1.0	1.0	0.5	0.5	1.5	1.7	2.3

[1)] As calculated in the National Accounts

2 Economic policy and public finances

2.1 General government finances

Finnish public finances have been running a deficit since the end of the last decade. The budgetary position is set to improve slowly in the years ahead, but still threatens to remain in deficit. General government debt to GDP ratio has increased for several consecutive years, and there is no significant turnaround in sight. To achieve long-term sustainability in general government finances, the budgetary position should recover to show a surplus of around 2 % of GDP by the end of the decade.

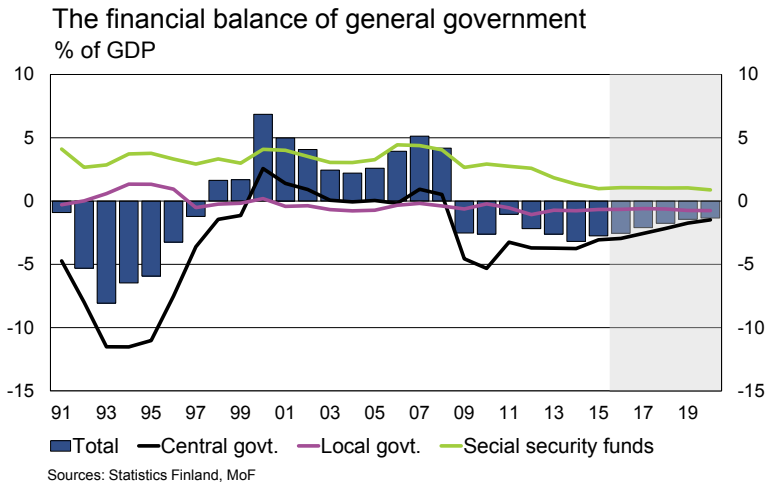
The general government deficit stood at EUR 5.7 billion, or 2.7% of GDP in 2015. The deficit decreased from the previous year primarily as a result of substantial fiscal adjustment and reasonably strong revenue growth for the general economic environment.

General government in Finland consists of central government, local government, and social security funds. The latter are further divided between earnings-related pension funds, which manage statutory earnings-related pension insurance, and other social security funds.

Determined fiscal adjustment brought a substantial improvement to the central government budgetary position last year. Over the outlook period the deficit will slowly shrink with the gradual recovery of economic growth and continued adjustment measures. The local government budgetary position improved in 2015, primarily as a result of reduced consumption expenditure. However, the rising service needs of an ageing population will place a heavy burden on local government finances. The local government deficit will increase slightly during the forecast horizon. It is estimated that the combined deficit of central and local government finances will be somewhat EUR 5 billion in 2020.

Other social security funds have seen their financial position eroded by high unemployment expenditure. However they are expected to move back close to balance with the increase made to the unemployment insurance contribution and with the improving employment situation. The surplus shown by authorised pension providers continued to shrink last year. It is projected that this surplus will continue to decrease over the outlook period to less than one per cent of GDP.

The expenditure to GDP ratio or the expenditure rate continued to rise last year. A major contributing factor was the growth of unemployment-related expenditure, but slow GDP value growth and rising ageing-related expenditure also made an impact. The expenditure rate will stop rising during the forecast period in response to the Government's adjustment measures and the slowdown of unemployment expenditure growth. The tax rate, i.e. the ratio of taxes and tax-like levies to GDP, continued to rise in 2015. This was due to indirect tax hikes in particular. It is predicted that the tax rate will fall slightly over the outlook period.



In 2014 the Finnish public deficit exceeded the EU Treaty's 3% of GDP reference value, but in 2015 the deficit came in under that limit. The public debt to GDP ratio has climbed to over 60%. A more detailed examination of the economy's performance in relation to EU fiscal criteria is presented in Annex 4 of the General Government Fiscal Plan for 2017–2020.

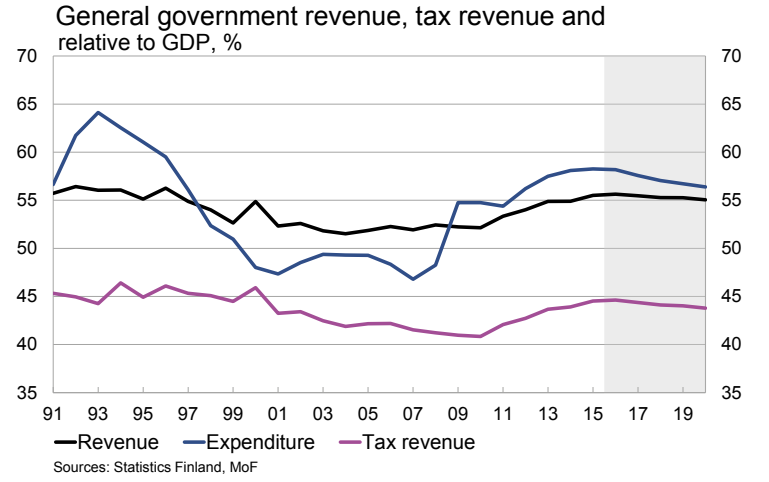


Table 14. General government finances [1)]

	2013	2014	2015	2016**	2017**	2018**
	EUR billion					
Current taxes	32.9	33.8	34.8	34.9	35.6	36.7
Taxes on production and imports	29.3	29.6	29.8	30.4	30.8	31.2
Social security contributions	25.9	26.3	27.0	28.0	28.4	29.0
Taxes and contributions, total [2)]	88.8	90.1	92.3	94.0	95.6	97.5
Other revenue [3)]	23.5	23.1	23.4	23.9	24.6	25.4
of which interest receipts	2.5	2.2	2.2	2.1	2.3	2.5
Total revenue	**111.6**	**112.7**	**115.1**	**117.2**	**119.5**	**122.2**
Consumption expenditure	50.3	50.8	50.9	51.5	52.2	53.2
Subsidies	2.7	2.7	2.8	2.7	2.7	2.7
Social security benefits and allowances	38.4	40.3	41.6	42.7	43.6	44.5
Other current transfers	6.0	6.1	5.8	5.5	5.3	5.3
Subsidies and current transfers, total	47.2	49.0	50.2	50.9	51.5	52.4
Capital expenditure [4)]	9.1	9.1	9.1	9.5	9.5	9.7
Other expenditure	10.4	10.3	10.5	10.6	10.8	10.9
of which interest expenses	2.6	2.5	2.5	2.5	2.4	2.5
Total expenditure	**117.0**	**119.2**	**120.8**	**122.5**	**124.0**	**126.1**
Net lending (+) / net borrowing (-)	**-5.3**	**-6.5**	**-5.7**	**-5.4**	**-4.5**	**-3.9**
Central government	-7.6	-7.7	-6.3	-6.2	-5.5	-4.8
Local government	-1.5	-1.6	-1.4	-1.4	-1.3	-1.4
Employment pension schemes	3.7	3.4	2.9	2.6	2.6	2.2
Other social security funds	0.0	-0.7	-0.8	-0.4	-0.3	0.1
Primary balance [5)]	-5.1	-6.1	-5.3	-4.9	-4.3	-3.8

[1)] As calculated in the national accounts, ESA2010.

[2)] Incl. capital taxes.

[3)] Incl. capital transfers and consumption of fixed capital.

[4)] Gross fixed capital formation and capital transfers.

[5)] Net lending before net interest expenses.

Table 15. Main economic indicators in general government

	2013	2014	2015	2016**	2017**	2018**
	% of GDP					
Taxes and social security contributions	43.7	43.9	44.5	44.6	44.4	44.1
General government expenditure [1]	57.5	58.1	58.3	58.2	57.6	57.0
Net lending	**-2.6**	**-3.2**	**-2.7**	**-2.5**	**-2.1**	**-1.8**
Central government	-3.7	-3.8	-3.1	-2.9	-2.6	-2.2
Local government	-0.7	-0.8	-0.7	-0.7	-0.6	-0.6
Employment pension institutions	1.8	1.7	1.4	1.3	1.2	1.0
Other social security funds	0.0	-0.3	-0.4	-0.2	-0.1	0.0
Primary balance [2]	-2.5	-3.0	-2.5	-2.3	-2.0	-1.7
General government debt	**55.4**	**59.3**	**63.1**	**65.0**	**66.7**	**67.4**
Central government debt	44.1	46.3	48.2	50.0	51.6	52.4
General government employment. 1000 person	633	625	621	617	616	614
Central government	142	138	136	134	133	131.2
Local government	480	477	474	472	472	472
Social security funds	11	11	11	11	11	11

[1] EU-harmonized definition.

[2] Net lending before net interest expenses.

Table 16. Fiscal balance and debt ratios in some EU economies

	2015	2016**	2017**	2015	2016**	2017**
	Fiscal balance			Debt		
	% of GDP					
*Finland	-2.7	-2.5	-2.1	63.1	65.0	66.7
Finland	-3.2	-2.8	-2.5	62.7	65.0	66.2
United Kingdom	-4.2	-2.9	-1.9	88.6	89.1	88.2
Sweden	-1.0	-1.1	-1.2	44.0	43.1	42.3
Denmark	-2.0	-2.7	-1.9	39.9	38.3	38.8
Ireland	-1.8	-1.3	-0.8	98.4	93.9	91.5
Spain	-4.8	-3.6	-2.6	100.7	101.2	100.1
Netherlands	-2.2	-1.8	-1.5	66.8	66.2	65.1
Luxembourg	0.2	0.5	0.5	21.3	22.7	22.0
Portugal	-4.2	-3.4	-3.5	129.1	128.5	127.2
Austria	-1.6	-1.7	-1.7	85.9	85.1	84.0
Germany	0.5	0.1	0.0	71.6	69.2	66.8
France	-3.7	-3.4	-3.2	96.2	96.8	97.1
Belgium	-2.9	-2.8	-2.4	106.1	106.6	105.6
Italy	-2.6	-2.5	-1.5	132.8	132.4	130.6
Greece	-7.6	-3.4	-2.1	179.0	185.0	181.8

Source: EU Commission forecast spring 2015; *Finland: Ministry of Finance, April 2016

2.1.1 Estimates of fiscal policy impact

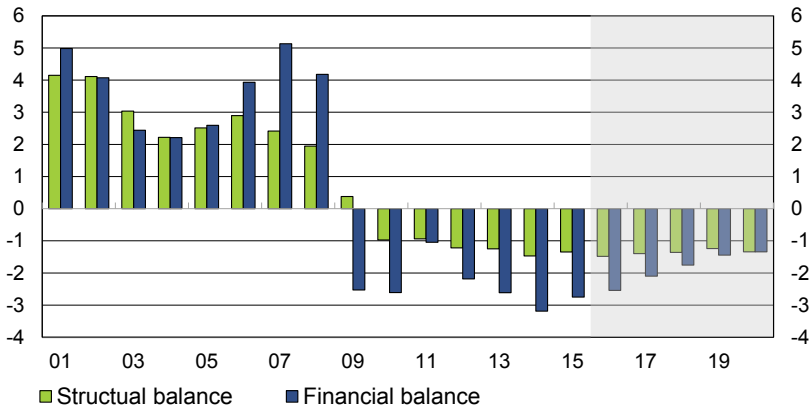
In 2016 general government fiscal policy will be contractionary. Around EUR 700 million of the Government's fiscal adjustment measures will be targeted at central government. Furthermore, fiscal policy will tighten as a result of local government adjustment measures and the increase to the unemployment insurance contribution. It is projected that the tax rate in 2016 will be 44.6% of GDP. The tax rate will fall moderately in 2016–2020 as the most important tax bases such as the wage bill and private consumption will increase more slowly than GDP. The expenditure rate will start slowly to fall in 2016 in response to savings measures and reduced cyclical expenditure.

The current fiscal policy stance can also be examined against changes in the structural balance as assessed using the EU harmonised method. Structural balance is calculated by removing the cyclical effect from the public sector balance. The remainder describes the effect of the policy pursued and other than cyclical factors on the balance. Changes in the structural balance thus describe changes in the overall fiscal policy stance. When the structural balance strengthens, fiscal policy is contractionary. On the other hand, when the structural balance weakens, fiscal policy is expansionary.

An examination of the fiscal policy stance based on changes in the structural balance does not give the exact same picture as an examination of individual revenue and expenditure measures. It is forecast that the structural balance will slightly deteriorate in 2016, in contrast to the conclusion suggested by an examination of individual measures. However, the structural balance will improve moderately in 2017–2019.

The difference between the fiscal policy stance measured by changes in the structural balance as opposed to that measured the combined effect of individual fiscal policy measures is explained by several factors that mainly have to do with the measurement of the structural balance. For instance, increasing age-related expenditure contributes to increase the structural deficit even in the absence of any decisions to increase expenditure.

General government financial balance and cyclically adjusted balance[1]
relative to GDP, %



1) Based on the European Commission's production function approach

Sources: Statistics Finland, MoF

Central government on-budget accounts and expenditure in 2017–2020

The spending limits decision included in the April 2016 general government fiscal plan is based on the fiscal policy objectives adopted in the Government Programme and on the first spending limits decision of the current parliamentary term last autumn.

The Government has announced new fiscal adjustment measures that will reduce central government spending by EUR 220 million at an annual level in 2019. Most of these measures will be put in place during 2017 and 2018. The net effect of all central government adjustment measures adopted during the parliamentary term comes to EUR 2,8 billion, or around 1 % of GDP at an annual level in 2019.

In 2017–2020, central government on-budget expenditure will increase nominally by an average of around 0.5% per annum. During this same period real expenditure will decrease on average by some 0.6% per annum.

Projected central government on-budget expenditure in 2017–2019 has increased somewhat from autumn 2015. Costs resulting from the increasing number of asylum seekers are driving up expenditure. On the other hand, interest outlays on central government debt have decreased significantly from the autumn 2015 general government fiscal plan due to the lowered interest rate forecast. In addition the new adjustment measures decrease the expenditure level .

Central government on-budget balance: estimate 2016–2020, current prices, EUR billion

	2016, supplementary budget proposal	2017	2018	2019	2020
Total estimated expenditure (current prices1)	54.5	55.1	55.4	55.1	55.7
Total estimated revenue	49.1	49.3	50.6	51.4	52.4
Estimated on-budget balance	**-5.4**	**-5,8**	**-4.8**	**-3,8**	**-3.3**

It is estimated that on-budget revenue (excluding net borrowing) will increase on average by around 1½% a year over the budget planning period. Tax revenue growth is predicted to average just over 2% per annum. Economic growth is expected to be modest over the planning period, and therefore tax bases will show only slow growth. In 2020 on-budget revenue is predicted to reach EUR 52.4 billion.

On-budget revenue estimates are significantly lower than in the Government's first general government fiscal plan published in autumn 2015. The current economic outlook is weaker than one year ago. The weaker macroeconomic outlook means that the tax revenue forecast for 2017–2019 has been revised downwards by some EUR 150 million. Furthermore, the Government has decided to withdraw the tax on sweets and ice cream from the beginning of 2017, which will reduce annual revenue by around EUR 109 million compared with the autumn projections. The negative impact on tax revenue will be replaced by increasing fuel taxes. Estimated central government interest revenue has been revised downwards by some EUR 50 million in response to lowered interest expectations based on past market interest rates and future interest rate expectations.

Factors impacting change in central government on-budget balance compared with autumn 2015 general government fiscal plan/spending limits decision, EUR billion

	2017**	2018**	2019**
Estimated balance, general government fiscal plan 2016–2019, 28 September 2015	**-5.9**	**-4.9**	**-4.0**
Net savings and increases in central government expenditure in Government Programme (Annex 6), excluding financial investments	0.1	0.2	0,2
Lowered estimate of EU membership fee	0.1	0.1	0.0
Revised distribution of costs between central and local government at lower than predicted level	0.1	0.1	0.1
Change due to increased number of asylum seekers	-0.4	-0.4	-0.5
Increase in cyclical expenditure	0.0	-0.1	-0.2
Change in projected interest payments on central government debt	0.2	0.3	0.4
Other change (net), including downward revision of price adjustment of expenditures	0.0	0.2	0.6
New tax base changes (withdrawal of tax on sweets and ice cream and increase of fuel taxes in 2017)	0,0	0,0	0,0
Changes to miscellaneous revenue and revenue from interests, dividends and sales of shares	-0.1	-0.1	0.0
Other factors impacting revenue estimate (including tax accrual data and new cyclical forecast)	0.0	-0.2	-0.3
CHANGE TOTAL	**0,0**	**0.1**	**0,2**
Estimated balance, general government fiscal plan 14 April 2016	**-5,8**	**-4.8**	**-3,8**

2.1.2 General government debt

General government debt increased to over EUR 130 billion last year. At the same time, debt-to-GDP breached the EU's 60% limit for the first time during Finland's EU membership. In eight years, general government debt has more than doubled and the debt ratio risen by 30 percentage points. The debt ratio will continue to climb in the years ahead, albeit at a slower rate.

Central government on-budget debt accounts for EUR 100 billion of total public debt. The general government debt forecast is based on the net borrowing requirement figure in the state budget and the central government debt forecast derived from that figure. Local governments have debts of almost EUR 18 billion and social security funds debts of one billion euros. In addition, off-budget entities that are included in the central government sector have outstanding debts. Loans granted by the European Financial Stability Facility (EFSF) to recipient countries are also included in the public debt of countries that have provided guarantees to the EFSF. The Finnish public debt figure includes EUR 3.4 billion in EFSF debt.

Furthermore, public debt includes certain other items, such as security deposits related to government derivative contracts, debts related to PPP projects, the capital assets of the State Nuclear Waste Management Fund and coins in circulation. Internal general government debt is consolidated out of the measure of public debt. The biggest single internal general government debt item consists of investments by earnings-related pension funds in government debt securities.

General government debt to GDP increased by 3.8 percentage points in 2015. The table below describes the factors contributing to the change in the general government debt ratio. The purpose of the table is to clarify the relationship between the general government budgetary position and debt ratio change in the national accounts. A plus sign indicates that the factor has the effect of increasing the debt ratio, a minus sign that it decreases the debt ratio.

Table 17. Change in general government debt ratio and related factors

	2014	2015	2016**	2017**	2018**	2019**	2020**
Debt ratio. % of GDP[1)]	59.3	63.1	65.0	66.7	67.4	67.4	67.2
Change in debt ratio	3.9	3.8	1.9	1.7	0.7	0.2	-0.2
Factors impacting change in debt ratio							
Primary budgetary position	1.9	1.5	1.4	1.0	0.6	0.3	0.1
Interest expenditure	1.2	1.2	1.2	1.1	1.1	1.2	1.2
Change in GDP volume	0.4	-0.3	-0.6	-0.8	-0.8	-0.7	-0.7
Change in GDP price	-1.0	-0.3	-0.5	-0.7	-0.9	-1.2	-1.3
Acquisition of financial assets (net)	1.7	1.4	1.3	1.2	1.0	0.9	0.8
Other factors 1[1)]	-0.4	0.2	-0.8	-0.1	-0.3	-0.3	-0.3

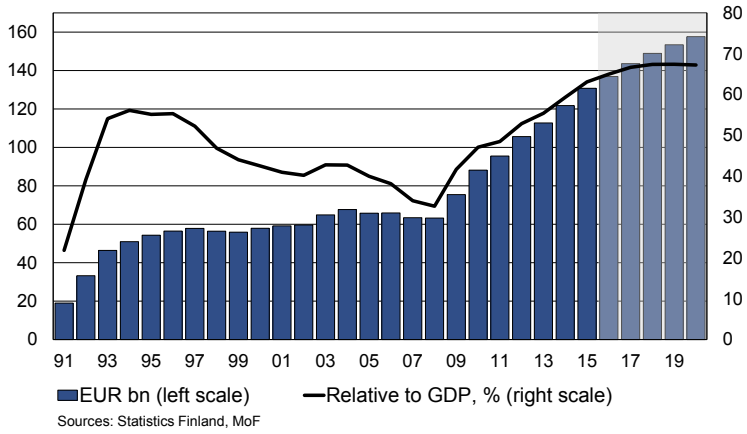
[1)] Includes privatization proceeds. lending and factors related to the valuation and timing of revenue and expenditure.

Plus indicates increasing effect on debt ratio. minus a lowering effect on debt ratio.

The general government primary balance (revenue minus expenditure, excluding interest payments) showed a deficit last year, driving debt growth by 1.5 percentage points. Interest payments accounted for 1.2 percentage points of the increase in the debt ratio. When the level of debt is compared with GDP, GDP value growth has the effect of lowering the debt ratio. In 2015 both GDP volume and price increased by around 0.5%, slowing debt growth by 0.6 percentage points.

Earnings-related pension funds are running a surplus. In 2015 that surplus was 1.4% of GDP ('Acquisition of financial assets (net)'). The surplus of these pension funds is included in the primary budgetary position of general government, but it is not used to pay off general government debt. Therefore this surplus must be excluded from the range of factors impacting the change of debt ratio. In addition to these factors, central government lending and factors related to the valuation and timing of revenue and expenditure increased the general government debt ratio by 0.2 percentage points in 2015.

General government debt



Sources: Statistics Finland, MoF

2.2 Central government

Despite slow GDP growth, the central government deficit decreased in 2015. This was mainly due to adjustment measures adopted by the previous government, including a one-off transfer from the State Pension Fund to the central government budget. Central government expenditure did not increase, and revenue growth was moderate.

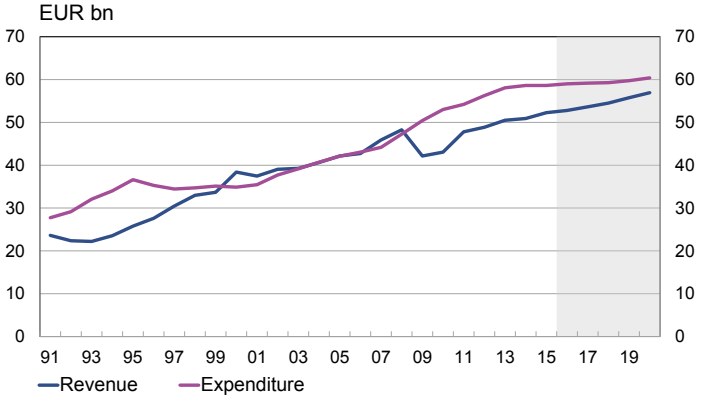
In 2016 economic growth will remain subdued, providing little support for efforts to reduce the deficit. The Government's fiscal adjustment measures are certainly having an impact, albeit to a lesser extent than last year, and the central government deficit will shrink marginally. National accounts expenditure growth will continue at a slow rate. Although discretionary tax measures will contribute to slightly ease taxation this years, tax revenue growth will pick up somewhat from the year before.

Economic growth will accelerate slightly in the years ahead, but it is estimated that some tax base growth will remain moderate. The low rate of inflation will be reflected in tax revenue in particular. Adjustment measures on the expenditure side will continue to be the main drivers of the slight improvement in the central government deficit. By the turn of the decade it is estimated that the central government deficit will stand at EUR 3.5 billion, or 1.5% of GDP.

At year-end 2015 state debt stood at EUR 100 billion. As budgets will continue to show deficits through to the end of the decade, central government debt will continue to rise, albeit at a slower rate than before. The debt projection for 2020 is EUR 123 billion, or somewhat 53% of GDP

State guarantees include all guarantees issued by central government, state enterprises, state-owned joint stock companies and special credit institutions ultimately backed by central government. These guarantees are not an expenditure item and do not show up in the state budget, unless the guarantees are called. The amount of government-issued guarantees has increased rapidly in recent years. At year-end 2015 the stock of state loan guarantees was up 15% from the year before, standing at almost EUR 45 billion, or almost 80% of state budget expenditure.

Central government revenue and expenditure



Sources: Statistics Finland, MoF

Table 18. Central government [1)]

	2013	2014	2015	2016**	2017**	2018**
	EUR billion					
Current taxes	12.2	12.6	13.0	13.1	13.5	14.0
Taxes on production and imports	29.3	29.6	29.8	30.4	30.8	31.2
Taxes and contributions, total [2)]	42.2	42.7	43.4	44.3	45.0	45.8
Other revenue [3)]	8.8	8.8	9.2	8.8	8.9	9.1
of which interest receipts	0.4	0.4	0.4	0.3	0.3	0.4
Total revenue	**51.0**	**51.4**	**52.6**	**53.1**	**53.9**	**54.9**
Consumption expenditure	13.7	13.8	13.6	13.9	14.0	13.9
Subsidies and current transfers, total	37.7	38.2	38.2	38.1	38.3	38.6
to general government	25.8	26.2	26.2	26.6	26.9	27.2
Interest expenses	2.4	2.5	2.4	2.3	2.2	2.2
Capital expenditure [4)]	4.7	4.7	4.8	5.0	4.9	5.0
Total expenditure	**58.6**	**59.1**	**59.0**	**59.3**	**59.4**	**59.7**
Net lending (+) / net net borrowing (-)	**-7.6**	**-7.7**	**-6.3**	**-6.2**	**-5.5**	**-4.8**
Primary balance[5)]	-5.6	-5.6	-4.4	-4.2	-3.6	-2.9

[1)] As calculated in the national accounts.
[2)] Incl. capital taxes.
[3)] Incl. capital transfers (excl. capital taxes) and consumption of fixed capital.
[4)] Gross fixed capital formation and capital transfers.
[5)] Net lending before net interest expenses.

2.2.1 Central government expenditure

For the first time in 15 years, central government national accounts expenditure showed no increase at all last year. Both current transfers and consumption expenditure, the single biggest items, decreased. A significant number of expenditure adjustment measures introduced by the previous government were scheduled for 2015.

Central government expenditure growth will remain moderate over the outlook period. In 2016 there will be a marked increase in asylum seeker expenditure, which will increase central government consumption expenditure as well as current transfers to local governments and social security funds. Likewise, the Government's key projects and investments in transport infrastructure maintenance, totalling EUR 1.6 billion in 2016–2018, will drive up central government expenditure. In 2016 capital transfers, including capitalisations of the development finance company Finnfund and Terrafame Oy, new owner of the Talvivaara mine, will increase expenditure. On the other hand, the Government's expenditure adjustments and the low rate of inflation will help to curb expenditure growth.

Current transfers account for over half of all central government expenditure. Amounting to EUR 32 billion, most of these transfers go to local governments and social security funds, but they also include transfers to non-profits, fees paid to the EU, and development aid to foreign countries. Almost one-quarter of total expenditure goes to consumption, i.e. labour costs and acquisitions of production inputs. Other major expenditure items include subsidies paid and property and investment expenditure.

Interest expenses have long remained rather moderate because of low interest rates and the country's strong credit rating, even though central government debt has risen appreciably for seven years in a row. In 2015 national accounts interest expenses amounted to 4.0% of total expenditure, compared with the peak figure of over 16% in 1997. Central government debt will continue to rise year on year, and at some point interest rates will also begin to edge up –and interest outlays as a proportion of total expenditure will therefore inevitably increase.

Impact of increasing number of asylum seekers on central government expenditure

The number of asylum seekers arriving in Finland started to rise in 2015, and that number is expected to remain high in the next few years. In 2015 the number of new arrivals was just over 32,000. The forecast for 2016 onwards is 10,000 asylum seekers a year, and that figure is used for all projections of immigration-related appropriations over the outlook period. It is expected that around one-third of all applicants will be granted asylum. Furthermore, it is predicted that three family reunification applications will be filed for each successful asylum applicant, and that around half of these applications will be approved. The calculations are based on the assumption that those gaining asylum status will not yet find employment during the planning period. Immigration will require additional appropriations in seven administrative branches. This box provides a description of the additional expenditure resulting from the current asylum seeker situation, which is entered in the 2015 supplementary budgets, the 2016 state budget, the autumn 2015 general government fiscal plan for 2016–2019, and the general government fiscal plan for 2017–2020. This additional expenditure is on top of the projected figures in the spring 2015 general government fiscal plan, which were based on the earlier estimate of 3,000–4,000 asylum seekers a year.

	2015	2016*	2017	2018	2019	2020
Ministry of Foreign Affairs			7	0	0	0
Ministry of Justice	6	24	19	16	13	10
Ministry of the Interior	84	419	121	103	96	94
Ministry of Finance	0,6	0,5	0,3	0,2	0,1	0,1
Ministry of Education and Culture	0	27	92	81	52	36
Ministry of Employment and the Economy	0	84	205	283	268	189
Ministry of Social Affairs and Health	0	0	171	227	284	328
TOTAL	**90**	**555**	**616**	**710**	**713**	**656**

* Expenditure estimates for 2016 have been made in autumn 2015 based on the assumption of 15,000 asylum seekers.

The Ministry for Foreign Affairs additional spending needs will arise from the growing number of family reunification applications and the resulting need for extra human resources in embassies.

In the administrative branch under the Ministry of Justice, additional costs will arise from the increased number of appeals to courts of law and the use of legal advisers in the asylum seeking process. In 2017 EUR 8 million and in 2020 EUR 4 million will be allocated to meet courts of law costs. In 2017 EUR 11 million and in 2020 EUR 6 million will be made available to cover the costs of legal aid offices and private legal advisers.

The biggest increases in expenses for agencies under the Ministry of the Interior will arise from the reception of asylum seekers (EUR 65 million in 2017–2020), the reception allowance payable to applicants (EUR 7 million in 2017–2020) and the Finnish Immigration Service's and reception centres' operating costs (EUR 31 million in 2017 and EUR 12 million 2020). Additional funds are also earmarked for the removal of asylum seekers and police operating expenditure.

In the administrative branch under the Ministry of Finance, additional funds are made available to cover the increased operating expenditure of local register offices and Customs.

Under the Ministry of Employment and the Economy, the biggest expense item consists of reimbursements to municipalities for social integration costs. Additional spending in 2017 will

come to EUR 157 million and in 2020 to EUR 182 million. In addition, extra resources will be made available for integration training through public labour and business services: EUR 47 million in 2017 and EUR 5 million in 2020. More resources will also be allocated to cover the operating costs of Centres for Economic Development, Transport and the Environment and public employment and business services.

The Ministry of Education and Culture is preparing for an increased level of enrolment in basic education (EUR 56 million in 2017 and EUR 5 million in 2020). In 2017 EUR 9 million and in 2020 EUR 8 million will be allocated to the provision of basic education for individuals over compulsory education age. The number of student places in vocational training will be increased by 2,000 from 2017 onwards. The annual costs of EUR 21 million will be covered in full by central government. Furthermore, funds earmarked for personnel training in education services will be made available for teacher training required by the asylum seeker situation.

For the Ministry of Social Affairs and Health, the increased number of asylum seekers will over time mean increased expenditure on child allowances, housing allowances, labour market subsidies, sickness insurance and basic social assistance. The single biggest expense item is the labour market subsidy: additional funding needs in 2017 are estimated at EUR 112 million and in 2020 at EUR 189 million. In 2017 an additional EUR 51 million will be made available for housing allowances and in 2020 and additional EUR 91 million.

2.2.2 Central government revenues

The greater part of central government expenditure is funded out of tax revenue. The development of tax revenue depends largely on the overall performance of the economy and the structure of economic growth. Tax accrual and the structure of taxation is also affected by government decision-making. The most significant tax revenue items are taxes on earned and capital income, value added tax and corporate income tax.

The Finnish economy has long been in severe difficulty, which has hampered tax revenue growth. In 2015 national accounts tax revenue increased by less than 2%, standing at EUR 43 billion. In recent years the emphasis of taxation has shifted from direct towards indirect taxes.

In 2016 tax revenue growth will accelerate slightly from last year as the economy continues to pick up. The most significant discretionary tax measure is the increase to the maximum amount of earned income tax credit, which will reduce government revenue from earned income taxation. There will be both indirect tax hikes and tax cuts.

In the medium term annual tax revenue growth will average around 2%. The revenue forecasts for the outlook period take account of the discretionary tax measures introduced by the previous and current governments for implementation in 2016–2020.

Other central government revenue includes property income and a transfer from the State Pension Fund, which will be used to finance part of central government's pension expenditure. It is estimated that property income will remain at around EUR 2 billion over the outlook period. Central government dividend income will remain more or less unchanged, and interest receipts will remain at a historically very low level.

Table 19. Forecasts for certain revenue and demand items impacting taxable income and the tax base in 2014-2020, annual change

	2014	2015	2016**	2017**	2020/2017**
	change, % per year				
Taxable earned income and capital income	0,2	2.1	2.0	1.8	2
Wage and salary earnings and other income	0.3	0.8	1.5	1.4	2
Pensions and other social security benefits	5.5	3.2	2.6	2.2	2 1/2
Capital income	12.6	7.8	3.4	2.8	3
Index of wage and salary earnings	1.4	1.2	1.2	1.0	1
Operating surplus	6.1	0.8	1.1	3.9	4 1/2
Value of household consumption expenditure	0.3	0.4	0.8	1.6	2
VAT base	0.1	0.4	1.5	1.8	2 1/2
Petrol consumption	-2.5	-1.4	-1½	-1½	-2
Diesel consumption	-1.2	1.6	1½	1.0	1/2
Electricity consumption	0.4	-0	3½	5½	1
Duty-paid alcohol consumption	0	-3.6	-1	- 1/2	- 1/2
New passenger cars	0.8	4.5	2.2	3.7	3 1/2
Consumer price index	1.0	-0.2	0.3	1.3	1 1/2

Direct taxes

Revenue from earned and capital income taxes consists of receipts from progressive income tax, capital income tax, the public broadcasting tax and withholding tax paid by people with limited tax liability. The most significant source of revenue is the progressive earned income tax, the accrual of which is primarily dependent on employment and wage trends. Capital income items include dividend income, capital gains and rental income.

In 2016 there will be only slow growth in tax revenue from earned and capital income. This is due to sluggish economic growth and decisions made on discretionary tax measures. Introduced from the beginning of 2016, the increased maximum amount of earned income tax credit will have the effect of reducing tax revenue.

In 2017–2020 revenue from earned income and capital income tax will increase on average by 2% a year. Wage bill growth will accelerate towards the end of the forecast period, and at the same time employment will improve. Furthermore, pension income will increase with the growing number of pensioners and with increasing average pension earnings.

The earned income and capital income tax forecast assumes that in 2017–2020, index adjustments will be carried out to ensure that the tax burden on labour does not increase as a result of higher earnings levels.

Revenue from the corporate income tax paid by businesses on their profits is shared between central government and local government. From the beginning of 2016, the share formerly allocated to parishes has been replaced by an indexed appropriation. The corporate income tax projection assumes that revenue will develop in line with the national accounts operating surplus.

In 2016 operating surplus growth will be slow. Revenue from corporate income tax, however, will show moderate growth. Central government revenue from corporate income tax will increase with the expiry of temporary tax base revisions, most notably the expiry of the temporary increase in the share of corporate income tax revenue paid to local governments. In 2017–2020 no revisions will be made to the tax bases of corporate income tax, and it is projected that tax revenue will increase at more or less the same rate as operating surplus.

Revenue from withholding tax on interest consists mainly of household interest revenue on deposits. This revenue has fallen sharply in recent years due to low interest rates. It is anticipated that revenue from withholding tax on interest will only begin to edge up towards the end of the forecast horizon with rising interest rates.

Table 20. Impact of change in selected tax base items on tax revenue

Tax category	Tax base / Demand item	Change	Change in tax revenue, EUR million
Taxes on earned income	Wage and salary earnings	1-pp	384 of which central govt. 125 and local govt. 174
	Pension incomes	1-pp	121, of which central govt. 30 and local govt. 80
Capital income tax	Investment income	1-pp	35
Corporate tax	Operating surplus	1-pp	42, of which central govt. 30 and local govt. 12
VAT	Value of private consumption	1-pp	121
Car tax	Sales of new cars	thousands	7
Energy tax	Electricity consumption *	1%	9
	Petrol consumption	1%	13
	Diesel consumption	1%	13
Duty on alcoholic beverages	Alcohol consumption	1%	13
Duty on cigarettes	Cigarette consumption	1%	8

*excl. manufacturing industries, datacenters and greenhouses

Indirect taxes

The most important source of indirect tax revenue is VAT, accounting for around one-third of revenue in the state budget. It is estimated that national accounts VAT revenue will increase by an annual average of just over 2% over the outlook period. VAT revenue growth will be held in check by slow inflation.

Two changes will be made to the levying of VAT during the outlook period, which will result in one-off postponements of tax remittance dates to the following year. Firstly, starting from 2017, small businesses will have the option to pay their VAT returns on a cash basis. Secondly, the administration of VAT on imports will be taken over from Customs by Finnish Tax Administration in 2018.

The motor car tax is cyclically highly sensitive. The tax was reduced from the beginning of 2016, and the Government is committed to gradually lowering it further through to 2019. The motive behind the decision to phase in these tax changes over time is to try to curb their impact on consumer behaviour and to avoid undue disruptions in the auto market that might follow from a major one-off tax reform and from a sudden reduction in stock values. A further concern is to avoid unfair consumer wealth effects.

The vehicle tax is a time-based tax that is levied on an ongoing basis in 12-month periods on passenger cars, vans and heavy goods vehicles. Revenue from the vehicle tax is relatively stable. The vehicle tax will be increased from the beginning of 2017. In addition, a new annual tax will be introduced on registered boats and motor vehicles.`

There have been significant changes to energy taxation in recent years. Taxes on heating fuels were raised from the beginning of this year, while the peat tax was lowered from the beginning of March. In its spring 2016 spending limits discussions the Government decided to increase the tax on transport fuels. Revenue from other excise duties is usually highly stable, assuming there are no tax base changes. The tobacco tax will be progressively raised from the beginning of the current year through to 2019.

Table 21. Central government on-budget revenue: estimates for 2012-2018, EUR billion

	2015 provisional financial accounts	2016 budget incl. supplementary budget	2017**	2018**	2019**	2020**	2020/2016** annual change, %
Total tax revenue estimates	39.9	40.8	41.6	42.3	43.6	44.5	2
Income and wealth taxes[1]	12.6	12.9	13.2	13.6	14.2	14.6	3
Taxes based on turnover	17.6	17.8	18.0	18.3	19.0	19.5	2
Excise duties	6.8	7.1	7.2	7.2	7.3	7.3	1 1/2
Other taxes	3.0	3.0	3.2	3.1	3.2	3.2	1 1/2
Miscellaneous revenue	6.1	5.4	5.2	5.4	5.5	5.6	-1 1/2
Interest income and profit entered as income	2.4	2.5	2.0	2.5	1.9	1.9	-2 1/2
Total revenue estimates	**49.0**	**49.1**	**49.3**	**50.6**	**51.4**	**52.4**	**1**

[1] Incl. YLEtax from 2013 onwards (on average 500 EUR million per year).

Table 22. Impact of discretionary tax measures on general government tax revenue

	2015	2016	2017**	2018**	2019**	2020**
	EUR million					
Earned income taxes	-184	-515	-319	-144	-218	-309
Average increase in municipal tax rate	101	36	0	0	0	0
Investment income tax	100	51	11	0	0	0
Corporate tax	-85	122	63	-8	0	0
Other direct taxes	-122	25	9	-64	-40	0
Value-added tax	21	0	-149	-200	0	0
Energy taxes	267	103	128	-12	49	-4
Other indirect taxes	156	94	138	68	68	34
Social security contributions	376	677	33	95	96	-21

2.2.3 On-budget accounts and national accounts

The central government on-budget deficit stood at EUR 4.7 billion in 2015. The corresponding national accounts deficit was EUR 6.3 billion. This is quite a noticeable difference. In 2010–2013, the national accounts deficit was smaller than the on-budget deficit, whereas in 2014–2015 the national accounts deficit was larger.

One significant factor explaining the difference between the on-budget net financing requirement and national accounts net lending comes from financial investments. Financial investments such as central government loans and share purchases and sales are entered in the state budget as expenditure. Loan repayments, revenue from share sales, etc., are accordingly entered on the revenue side. In the national accounts, these items are entered as financial transactions, which do not affect central government's fiscal balance as measured by net lending. Various capitalisations in particular can often be subject to difficult interpretation. Some capitalisations are paid capital transfers, which adversely affect the national accounts fiscal balance, while others are regarded as financial investments, which have no effect on the national accounts balance.

National accounts interest outlays in 2015 were EUR 0.75 billion higher than on-budget interest outlays, which is mainly due to the fact that national accounts interest payments do not include the downward effect of interests on derivative instruments (swaps and futures), in contrast to the on-budget figures. By using derivatives, the Treasury has managed to achieve quite a significant reduction in the level of real interest payments from the state budget. In the national accounts, derivative contracts are recorded as financial transactions that have no effect on financial position.

The national accounts concept of central government comprises not only on-budget entities, but also extra-budgetary funds (excluding the State Pension Fund), universities, property companies, the Finnish Broadcasting Company YLE, VTT Technical Research Centre, and Solidium. In 2016 Finnish Industry Investment Ltd is classified in the state sector.

One significant difference comes from the use of deferrable appropriations. These are two or three-year grants that are entered in the budget for one year only. In the national accounts, deferrable appropriations are entered on the basis of their use. The net effect of deferrable appropriations can vary widely from year to year.

Table 23. On-budget balance and central government net lending[1)]

	2014	2015	2016**	2017**	2018**
	EUR billion				
On-budget surplus (+)/deficitT (-) [2)]	**-6.6**	**-4.7**	**-5.4**	**-5.8**	**-4.8**
Privatization proceeds (net proceeds from equity sales)	-0.1	0.3	-0.4	-0.4	-0.4
Financial investment, net	-0.7	-0.6	-0.8	-0.6	-0.7
Rvenue surplus in off-budget units	-1.2	-0.9	-0.3	-0.3	-0.3
Cash/accrual basis adjustment	0.5	0.1	0.0	0.0	0.0
Other adjustment items [3)]	0.4	-0.5	0.7	1.6	1.4
Central government net lending (+) /-borrowing (-)	**-7.7**	**-6.3**	**-6.2**	**-5.5**	**-4.8**

[1)] In national accounts terms.

[2)] Incl. government debt servicing.

[3)] Incl. debt cancellations, profit on reinvested foreign direct investments, super dividends

2.3 Local government

According to preliminary national accounts figures, the financial position of the local government sector showed a deficit of 0.7% to GDP. This was slightly less than the year before. Consumption expenditure growth was marginal at less than one percentage point. Investment expenditure growth also came to halt after increasing over a long period. The sluggish economy and cuts to central government transfers to local government meant that tax revenue and central government transfer growth were slow.

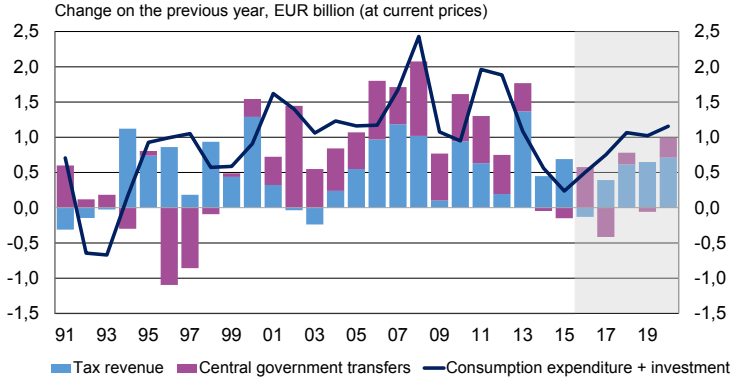
In 2016 the local government deficit will remain unchanged at the same level as last year. Overall revenue growth will remain subdued in an environment of slow economic growth and a difficult labour market situation. In fact local government tax revenue is set to decline this year with the expiry in January of the temporary increase in the share of corporate income tax revenue to local governments. Central government transfers to local governments will nonetheless increase appreciably with the statutory revision of the distribution of costs between central and local government, in which basic prices and finances are adjusted to reflect true costs.

Central government measures will have the net effect of strengthening local government finances this year. Local and joint municipal authorities will also continue efforts to consolidate their finances. Even so only 48 municipalities decided to raise their income tax rates at the start of the year. The average municipal tax rate rose by 0.04 percentage points, increasing municipal tax revenue by some EUR 40 million.

Since the start of 2016 the Government has allowed municipalities to charge higher fees for services provided in a bid to consolidate their finances. So far, however, several local and joint municipal authorities have decided to refrain from increasing their social and health care or day care charges as provided for in the Government Programme. Based on the 2016 municipal budgets, the main focus of municipalities' own fiscal adjustment efforts will be on measures designed to curb expenditure growth. Personnel costs will be reduced primarily through natural attrition. As in earlier years, layoffs and terminations will be avoided as far as possible. Thanks to these adjustment efforts, overall local government expenditure will rise only moderately in 2016.

Local government taxes, central government transfers, consumption expenditure and investment

Change on the previous year, EUR billion (at current prices)



Sources: Statistics Finland, MoF

Local government debt ratio set to continue to rise sharply

Local government finances will remain firmly in deficit in the years ahead. The 2017–2020 outlook is based on a pressure projection that only considers such specified and agreed measures that are included in the general government fiscal plan. The assessment does not take account of municipalities' and joint municipal authorities' fiscal adjustment measures for 2017–2020. The municipal tax rates are held constant at 2016 level. The outlook does not reflect the social and health care reform nor the reform of regional administration.

Tax revenue growth will pick up as the economy continues to rebound, but will nonetheless remain historically muted. The consolidation measures set out in the Government Programme, including the decision to freeze the central government transfers index at its current level in 2016–2019, will contribute to slow the growth of central government transfers to local government. Furthermore, the amount of transfers received by local governments will decrease in 2017 as the Social Insurance Institution Kela takes over the payment of basic income support. This will have very little impact on local government net lending in that the social benefits and allowances paid out by municipalities will decrease accordingly.

The Government Programme's adjustment measures will continue to slow the growth of consumption expenditure in 2017–2020. Some of the proposed measures to strengthen local government finances have not yet taken concrete shape, however. Among the measures set out in Annex 6 that as yet remain unspecified are the incentive system for specialised health care and the reduced planning obligations in social and health care services. It is estimated that these steps will have the effect of strengthening local government finances by over EUR 200 million at an annual level in 2020. Furthermore, the Government is committed to reducing municipalities' duties and obligations by a total of one billion euros. The proposed measures listed in the action plan so far are estimated to generate long-term cost savings of over EUR 400 million. However these measures have not yet assumed concrete enough form for them to be taken into account in the general government fiscal plan or in the outlook for local government finances. The final impact of central government meas-

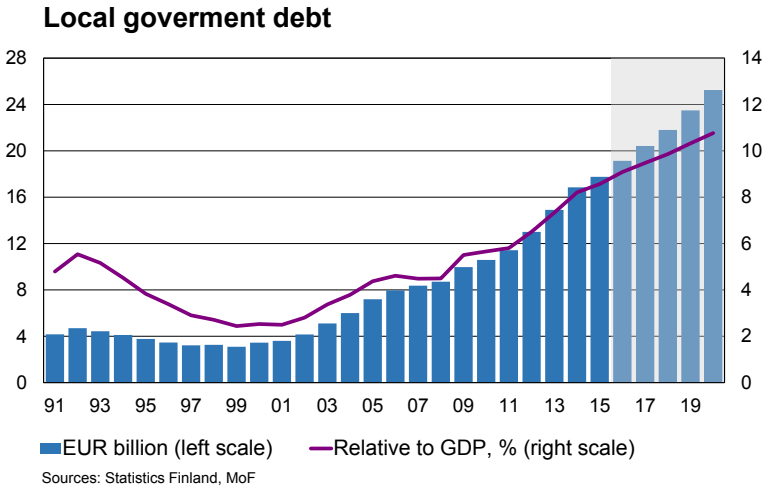


Table 24. Local government [1)]

	2013	2014	2015	2016**	2017**	2018**
	EUR billion					
Taxes and social security contributions	20.7	21.2	21.9	21.7	22.1	22.7
of which municipal tax	17.9	18.2	18.6	18.8	19.1	19.5
corporate tax	1.5	1.4	1.7	1.3	1.3	1.4
real estate tax	1.4	1.5	1.6	1.7	1.7	1.8
Other revenue [2)]	18.4	18.5	18.4	19.0	18.8	19.2
of which interest receipts	0.2	0.2	0.3	0.3	0.3	0.3
of which transfers from central government	13.9	13.8	13.7	14.3	13.9	14.0
Total revenue	**39.1**	**39.6**	**40.2**	**40.8**	**40.9**	**41.9**
Consumption expenditure	33.1	33.4	33.7	34.1	34.7	35.7
of which compensation of employees	21.7	21.6	21.7	21.7	21.7	22.0
Income transfers	3.1	3.1	3.3	3.4	2.7	2.7
of which social security benefits and allowances	1.3	1.3	1.3	1.4	0.7	0.7
subsidies and oher transfers	1.6	1.7	1.8	1.8	1.8	1.8
interest expenses	0.2	0.1	0.2	0.2	0.2	0.2
Capital expenditure [3)]	4.5	4.7	4.6	4.7	4.8	4.9
Total expenditure	**40.6**	**41.2**	**41.6**	**42.1**	**42.2**	**43.3**
Net lending (+) / net borrowing (-)	**-1.5**	**-1.6**	**-1.4**	**-1.4**	**-1.3**	**-1.4**
Primary balance [4)]	-1.5	-1.7	-1.5	-1.5	-1.4	-1.4

[1)] As calculated in the national accounts.

[2)] Incl. capital transfers and consumption of fixed capital.

[3)] Gross capital formation and capital transfers.

[4)] Net lending before net interest expenses.

ures on local government finances will also depend on the extent to which autonomous municipalities implement them.

The local government sector will remain under substantial expenditure pressure in the years ahead. Over the outlook period both population ageing and higher levels of immigration will increase the demand for municipal services. Despite the tense economic situation, investment by the local government sector will remain high. The provision of services and infrastructure especially in growth centres and measures to reduce the so-called repair debt continue to require substantial investment. Local governments must nonetheless weigh the risks associated with increasing their debt burden when making investment decisions.

The local government debt to GDP ratio has continued to rise year on year throughout the 2000s, with just a couple of exceptions. Despite fiscal adjustment, the debt ratio is set to continue to grow over the outlook period. This is a cause of some concern from a sustainability point of view in that population ageing will continue to increase the demand for municipal services and weigh down on local government finances for the next two decades. In order to achieve a permanent solution to the imbalance between revenue and spending it is therefore imperative that the social and health care reform be carried out and that the unspecified actions in the Government Programme be given concrete shape. It is also paramount that municipalities persist with the efforts they have made in the past few years to improve efficiencies in their operation. Without structural reforms and steps to curb spending, there will be significant upward pressure on municipal tax rates in the years ahead.

Local government accounting and national accounts: how they differ

The closest local government accounting equivalent to the national accounts concept of net lending is the cash flow from operations and investments (financial position). The two accounting systems define sector boundaries differently, and the same goes for the timing of concepts and entries. The reasons for the differences between the cash flow from operations and investments in local government accounting and net lending in the national accounts are examined in the table below.

The most important conceptual difference stems from sector definitions. Local government accounting is concerned with local government finances as defined in the statistics on local government finances, i.e. municipalities, joint municipal authorities and municipal enterprises. Excluded from local government finances under these statistics are such operations that are conducted by an independent legal entity, for instance in the form of a limited liability company. The national accounts definition of the local government sector, on the other hand, does include such municipally-owned enterprises that are treated as units serving their parent entity. Länsimetro, the underground constructor owned by the cities of Espoo and Helsinki, for instance, is classified in the national accounts under the local government sector, but in the statistics on municipal finances and activities it is not included in local government finances. Likewise, the New Children's Hospital Foundation as well as the real estate company that is building the hospital are classified in the national accounts under the local government sector. The foundation and the real estate company are controlled by general government and they produce services primarily for general government.

Table 25. Financial position in local government accounting and local government net lending

	2014	2015	2016**	2017**	2018**
	EUR billion				
Cash flow from municipalities' and joint municipal authorities' operations and investments	**-0.1**	**-1.0**	**-1.0**	**-1.0**	**-1.1**
Other than municipalities' and joint municipal authorities' net lending effect [1]	-0.3	-0.4	-0.4	-0.4	-0.4
Effect of municipalities' and joint municipal authorities' operations outside the local government sector	-0.6	0.2	0.1	0.1	0.1
Acquisitions and sales of shares	-0.3	0.3	0.2	0.2	0.2
Differences in concepts of property expenditure and income	-0.1	-0.1	-0.1	-0.1	-0.1
Timing differences	-0.1	-0.1	-0.1	-0.1	-0.1
Other differences [2]	-0.1	-0.3	0.0	0.0	0.0
Local government net lending (+)/borrowing (-)	**-1.6**	**-1.4**	**-1.4**	**-1.3**	**-1.4**

[1] Corporations classified under local government but not included in statistics on municipal finances as well as Government of Åland, Association of Finnish Local and Regional Authorities, Local Government Employers and Municipal Guarantee Board.

[2] E.g. differences in capital transfers and investment grants.

Source: Statistics Finland, MoF

In the national accounts, the local government sector comprises the non-market activities of local and joint municipal authorities, which are primarily financed from tax revenue and by compulsory payments. Public corporations that primarily finance their operations from sales revenue from other sectors, such as water, waste and energy management as well as port activities, are therefore classified in the national accounts in the corporations sector, outside the local government sector. The joint municipal authority HSY (Helsinki Region Environmental Services) is also classified in the corporations sector.

Statistics on municipal finances and national accounts have different definitions for the concept of investment expenditure. In the national accounts, acquisitions and sales of shares and equities are recorded as financial transactions and not under local government investment expenditure. Statistics on municipal finances, on the other hand, record share acquisitions as investments in fixed assets.

There are also differences in the concepts of property expenditure and incomes. In the national accounts, changes in the value of assets and liabilities are not included in income or expenditure. Therefore, municipalities' and joint municipal authorities' other financing costs and income (with the exception of dividends and interests) are not included in the national accounts definition of net lending.

There are also differences in the timing of entries in local government accounting and in the national accounts. In local governments' accounts, tax revenue describes the amount of tax collected during the calendar year. In the national accounts, tax revenue for the year in question is based on the tax authorities' accounts of tax remittance from February through to the end of January the following year. This is intended to take into account the timing difference between advance tax payments and remittance to government.

2.4 Social security funds

2.4.1 Earnings-related pension funds

The surplus of earnings-related pension funds fell to 1.4% of GDP in 2015, compared with the average of around 3% since 2000. Earnings-related pension expenditure has risen sharply in recent years with the growing number of pensioners and with the higher average level of pensions: new, starting pensions are higher than old ones in payment. The weaker employment situation and slower rise in earnings have in turn dampened the growth of incomes from contributions, even though pension contribution rates have increased sharply in recent years. Low interest rates have reduced pension funds' property income. However rising asset prices and stock prices in particular have increased the total value of pension assets to over EUR 180 billion at year-end 2015.

The growing number of pensioners and the higher average level of new pensions will continue to drive the growth of earnings-related pension expenditure throughout the forecast horizon. Slower inflation and expected moderate rises in earnings mean that annual indexations of pensions will remain at around one per cent in 2016–2020. During this same period earnings-related pension expenditure will increase at an annual average rate of around 4%. Earnings-related pension expenditure to GDP will climb to over 13% in 2020, compared with the figure of around 8½% in 2008.

In connection with the 2017 pension reform agreement, the central labour market organisations agreed on a 0.4 percentage point increase to the earnings-related pension contribution in 2017. In addition, the decision was made to freeze the contribution to this level of 24.4% in 2017–2019. The latest long-term projections by the Finnish Centre for Pensions indicate that this contribution level will be sufficient to finance pensions even beyond 2019.

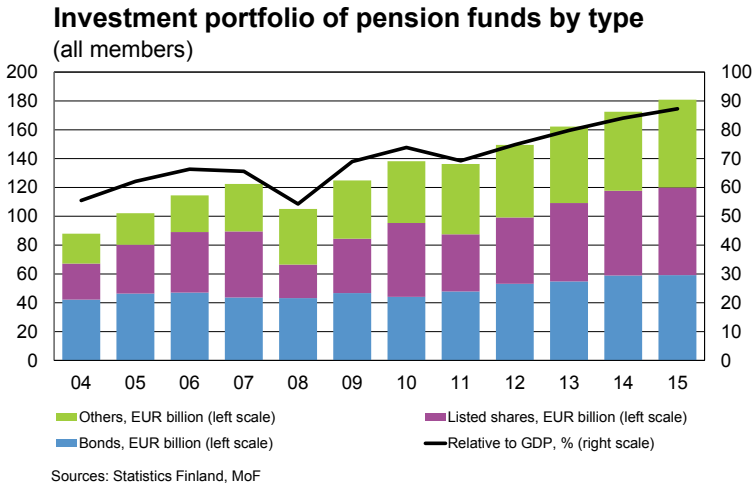
In the medium term, the freezing of pension contributions at the 2017 level will reduce the surplus of pension funds, as the growth-slowing effects of the pension reform on pension expenditure will only begin to take hold in the 2020s. Moderate wage increases and muted employment growth mean that wage bill growth will remain slow, which will be directly reflected in revenue from pension contributions. It is projected that pension funds' revenue from property income will turn to moderate growth during the outlook period as interest rates begin to pick up. In 2016–2020 the surplus in earnings-related pension funds will gradually fall from just over to just under one per cent of GDP.

Table 26. Finances of social security funds[1)]

	2013	2014	2015	2016**	2017**	2018**
	EUR billion					
Investment income	3.7	3.5	3.5	3.6	3.9	4.4
Social security contributions	25.9	26.3	27.0	28.0	28.4	28.9
of which contibutions paid by employers	17.9	17.9	18.3	18.8	19.0	19.3
contributions paid by insured	8.0	8.4	8.7	9.2	9.4	9.7
Transfer from general government	13.2	13.9	14.3	14.1	14.7	14.8
Other revenue	0.5	0.6	0.6	0.6	0.6	0.6
Revenue	**43.3**	**44.2**	**45.3**	**46.2**	**47.7**	**48.7**
Consumption expenditure	3.5	3.6	3.7	3.5	3.5	3.6
Social security benefits and allowances	33.0	34.7	35.9	37.0	38.5	39.3
Other outlays	3.0	3.2	3.7	3.4	3.5	3.5
Expenditure	**39.6**	**41.5**	**43.3**	**44.0**	**45.4**	**46.4**
Net lending (+) / net borrowing (-)	**3.7**	**2.7**	**2.0**	**2.2**	**2.3**	**2.3**
Earnings-related pension schemes	3.7	3.4	2.9	2.6	2.6	2.2
Other social security funds	0.0	-0.7	-0.8	-0.4	-0.3	0.1
Primary balance [2)]	2.0	1.2	0.6	0.8	0.7	0.5

[1)] As calculated in the National Accounts.

[2)] Net lending before net interest expenses.



Sources: Statistics Finland, MoF

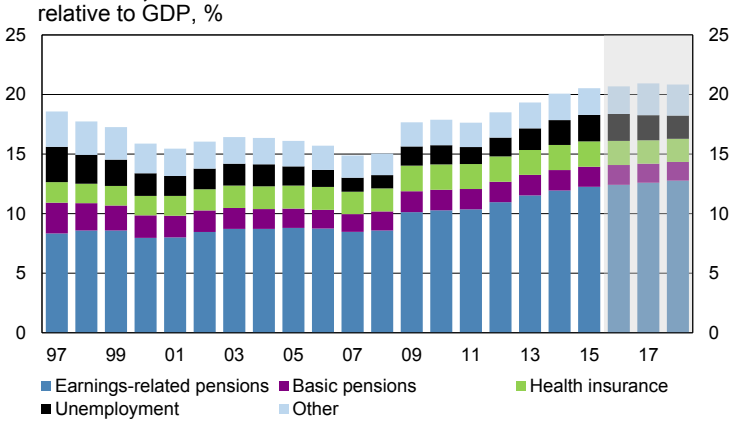
2.4.2 Other social security funds

Other social security funds consist mainly of the Social Insurance Institution (Kela) and the Unemployment Insurance Fund, which are responsible for the provision of basic security and for earnings-related unemployment security, respectively. The expenditure of other social security funds increased by close to 3% in 2015. This was in large part attributable to an almost 8% increase in unemployment expenditure. Sickness insurance expenditure increased by 2% last year, around the average for the past few years. Because of the growth of unemployment expenditure the financial position of other social security funds turned to a deficit of 0.4% of GDP last year, even though transfers from central and local government to other social security funds increased by around EUR 200 million from the previous year.

The deficit of other social security funds will shrink appreciably this year since the unemployment insurance contribution was raised by one percentage point from the beginning of this year. As is current practice, this increase was split between employers and employees. The forecast assumes that the increase will remain in force for the time being and that by virtue of this increase other social security funds will move close to balance over the outlook period. Without the increase to the unemployment insurance contribution rate, the Unemployment Insurance Fund would soon have breached its statutory debt ceiling, with earnings-related unemployment expenditure in 2016 already standing almost 50% higher than in 2012.

Unemployment expenditure growth will come to a halt in 2016 and it is expected that from 2017 onwards, with the gradual improvement in the employment situation, unemployment expenditure will begin to fall. Cuts to earnings-related unemployment security and job alternation leave compensation will also contribute to reduce unemployment spending. Cuts and savings will also be made in medical and health care reimbursements, sickness and parental allowances, general housing allowance, student financial aid and adult education subsidies. The only measure that will drive up expenditure is the increase to the amount of guarantee pension.

Benefits, allowances and medical care reimbursements
relative to GDP, %



Sources: Statistics Finland, MoF

Benefits and allowances tied to the national pension index were revised downwards by 0.4% from the start of 2016 in response to falling consumer prices. In line with the Government's spending limits decision in the beginning of April, benefits tied to the national pension index will be cut by 0.85% in 2017 and will not be increased in 2018–2019. This does not, however, apply to basic income support, payment of which will be taken over from local governments by the Social Insurance Institution from the beginning of 2017. The indexation of child allowances and student financial aid will also be discontinued. All in all, the measures adopted by the Government will significantly reduce the expenditure of other social security funds at an annual level in 2019. The savings achieved will largely be reflected in a reduced level of central government transfers to other social security funds.

Table 27. Social security contributions rates and pension indices

	2013	2014	2015	2016	2017**	2018**
Social insurance contributions [1)]						
Employers						
Sickness insurance	2.04	2.14	2.08	2.12	2.02	2.06
Unemployment insurance	2.32	2.20	2.33	2.85	2.85	2.85
Earnings-related pension insurance	17.35	17.75	18.00	18.00	18.15	18.15
Local government pension insurance	24.00	23.79	23.65	23.21	22.96	22.96
Employees						
Sickness insurance	2.04	2.16	2.10	2.12	1.97	2.03
Unemployment insurance	0.60	0.50	0.65	1.15	1.15	1.15
Earnings-related pension insurance	5.45	5.85	6.00	6.00	6.25	6.25
Pensioners						
Sickness insurance	1.47	1.49	1.49	1.47	1.42	1.44
Pension indices						
Earnings-related index (over 65)	2475	2509	2519	2519	2531	2560
National pension index	1609	1630	1637	1631	1631	1631

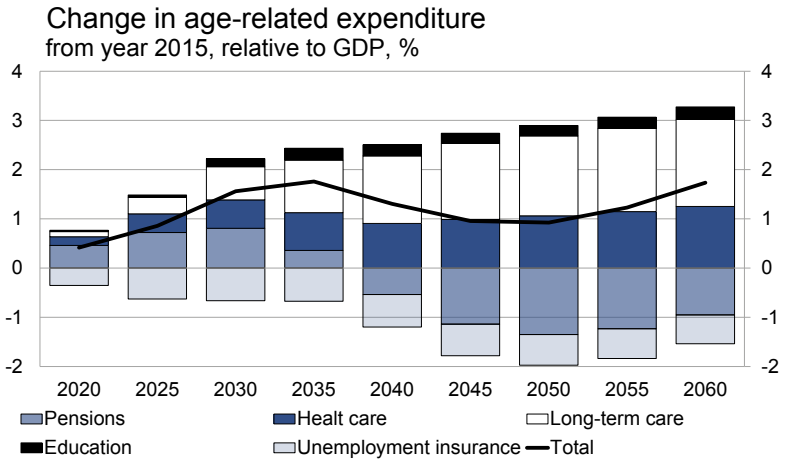
[1)] Annual averages. The contributions of employers and the unemployment and employment pension contributions of beneficiaries as percentages of wages and salaries. The figures are weighted averages.

2.5 Long-term sustainability of public finances

Despite fiscal adjustment, it is anticipated that balance will not be restored in public finances in the medium term, even though the increase in the public debt to GDP ratio will slow in the next few years. The challenge of balancing public finances is further compounded by population ageing, which is driving up pension expenditure as well as health care and long-term care costs. The slowdown of productivity growth and stalling labour input growth are in turn curbing economic growth and therefore slowing tax revenue growth.

The long-term difference between general government revenue and spending is measured by the sustainability gap. In other words, the sustainability gap is the current value of future public finance deficits. The sustainability gap indicates the extent of medium-term adjustment necessary in public finances in order to prevent public debt from spiralling out of control, in the long term, when rising age-related expenditure is taken into account.

The MoF Economics Department's assessment of the long-term sustainability of public finances is based on EU harmonised methods and calculation rules. The assessment of age-related expenditure is based on a model developed by the Ministry of Social Affairs and Health for social expenditure analysis. The long-term background assumptions of the calculation (e.g. employment, productivity, interest rate and inflation) are based on those used in the 2015 report by the EU Economic Policy Committee's Ageing Working Group[1].



The figure is compiled using the model developed by the Ministry of Social Affairs
Sources: MoF

[1] The 2015 Ageing Report: Underlying Assumptions and Projection Methodologies, European Economy 8/2014.

According to the assumptions in this EU report, productivity in Finland will increase by an annual average of 1.4% in 2020–2060. The present assessment diverges from these assumptions in two respects: the forecasts for demographic trends are based instead on Statistics Finland's 2015 population projection, and the 2016–2020 projections of economic development are based on the MoF Economic Department's economic forecast and medium-term calculations presented in this outlook.

It is estimated that the sustainability gap will be just over 3% of GDP at 2020 level. This is slightly lower than the forecast presented last autumn. The sustainability gap estimate has been slightly increased as a result of factoring in the new population projection, but other factors have contributed to decrease it somewhat.

Both the autumn and the present sustainability gap estimate take into account the effects of the pension reform that will be implemented from the beginning of 2017: this will reduce the sustainability gap in public finances by around one percentage point. It is anticipated that the reform will both increase the employment rate and reduce pension expenditure. The calculation does not take into account the long-term actions presented in the Government Programme for the improvement of public finances, such as the reform of social and health care services.

Table 28. General government finances 2015–2060, % of GDP

	2015	2020	2030	2040	2060	2060-2015
	% of GDP					change, %
Total expenditure	58.3	56.4	60.3	61.2	66.0	7.7
of which age-related and unemployment expenditure	30.0	30.5	31.6	31.3	31.8	1.7
Pensions	13.7	14.1	14.5	13.1	12.7	-1.0
Old-age pensions	12.4	13.0	13.5	12.2	11.7	-0.7
Other pensions	1.2	1.1	1.0	1.0	1.0	-0.2
Health care	5.9	6.1	6.5	6.8	7.2	1.3
Long-term care	2.2	2.3	2.9	3.6	4.0	1.8
Education	5.7	5.7	5.9	5.9	5.9	0.3
Unemployment	2.5	2.2	1.9	1.9	1.9	-0.6
Interest expenditure	1.2	1.1	3.9	5.0	9.4	8.3
Total revenue	55.5	55.0	56.4	55.3	54.7	-0.8
of which: property income	3.1	3.6	4.9	3.9	3.3	0.2
Net lending *)	-2.7	-1.3	-3.9	-5.8	-11.3	-8.5
of which: transfer to pension funds	1.4	0.8	0.4	0.9	1.1	-0.3
General government debt	63.1	67.2	79.5	103.8	194.9	131.8
General government assets, consolidated	127.1	128.9	110.6	91.5	82.4	-44.7
Pension funds`financial assets, consolidated	85.8	87.6	76.1	63.0	61.4	-24.4

*) Cyclically-adjusted net lending as of 2020.

Table 29. Underlying assumptions

	Assumptions, %			
	2020	2030	2040	2060
Labour productivity growth	0.8	1.4	1.5	1.5
Real GDP growth	1.1	1.4	1.8	1.5
Participation rate				
males (15-64)	77.0	77.5	77.3	77.7
females (15-64)	75.1	74.9	75.3	76.2
total (15-64)	76.1	76.2	76.3	77.0
Unemployment rate	8.1	6.9	6.8	7.3
Old-age dependency ratio*	36.9	43.4	44.6	50.7
Inflation	1.8	2.0	2.0	2.0
Real interest rate	1.0	3.0	3.0	3.0
Real return of asset	1.8	3.5	3.5	3.5

*** the ratio of people aged over 64 to those aged 15–64**

Souce: Ministry of Social Affairs, Statistics Finland, Ministry of Finance.

The sustainability calculation is effectively a pressure projection in which developments under current legislation and practices are projected to the future with the help of the population projection, the breakdown of spending by age groups, and assessments of long-term economic development. The further one reaches ahead of time, the greater the uncertainty of the projection, which is why the projection is highly sensitive to the assumptions used. Sustainability gap calculations are nonetheless useful tools in providing a consistent way of analysing and overcoming the future challenges that lie ahead for public finances.

Supplementary statistics

1. Evolution of forecasts over time

2. Outturn data and forecasts used in budget process for 2011-2015, average change, %

3. National balance of supply and demand

4. Financial balance of the Finnish economy

Table 1. Evolution of forecasts over time[1)]

	2015				2016**				2017**				2018**
	es2	es3	es4	es1	es2	es3	es4	es1	es2	es3	es4	es1	es1
GDP at market prices, change in volume, %	0.3	0.2	0.2	0.5	1.4	1.3	1.2	0.9	1.4	1.4	1.2	1.2	1.2
Consumption, change in volume, %	0.9	0.8	1.0	0.7	0.7	0.5	0.6	0.7	0.7	0.6	0.6	0.6	0.6
Exports, change in volume, %	0.3	0.9	-1.1	0.6	3.3	3.0	1.8	1.3	3.7	3.3	2.9	2.9	3.6
Unemployment rate, %	9.3	9.6	9.4	9.4	9.0	9.4	9.4	9.3	8.7	9.1	9.0	9.0	8.7
Consumer price index, change, %	0.1	-0.1	-0.1	-0.2	1.2	1.1	0.9	0.3	1.4	1.5	1.4	1.3	1.5
Central government net lending, relative to GDP, %	-3.1	-3.1	-3.1	-3.1	-2.6	-2.8	-2.9	-2.9	-2.5	-2.6	-2.7	-2.6	-2.2
General government net lending, relative to GDP, %	-3.2	-3.4	-3.3	-2.7	-2.5	-2.8	-2.9	-2.5	-2.4	-2.4	-2.6	-2.1	-1.8
Central government debt, relative to GDP, %	48.7	48.7	48.5	48.2	49.8	49.9	49.9	50.0	50.8	51.2	51.3	51.6	52.4

1) Economic Survey / release date: 17.6.2015 (es2), 28.9.2015 (es3), 18.12.2015 (es4) and 14.4.2016 (es1)

Sources: Statistics Finland, MoF

Table 2. Outturn data and forecasts used in budget process for 2011-2015

	Years 2011-2015		Average forecast errors	
	Forecast averages, % ch.	Outcome averages, % ch.	Forecast under-/over-estimation[1], pp.	Magnitude of forecast error[2], pp.
GDP (volume)	1.7	0.2	1.6	1.7
GDP (value)	3.9	2.3	1.7	2.1
Private consumption (value)	3.6	3.0	0.6	1.2
Current account, % of GDP	0.1	-1.0	1.1	1.7
Inflation	2.4	1.7	0.7	1.1
Wage bill	3.0	1.9	1.1	1.3
Unemployment rate	8.2	8.4	-0.2	0.6
Central government debt, % of GDP	46.7	45.0	1.7	1.7
Central government net lending, % of GDP	-3.2	-3.5	0.3	0.8
General government net lending, % of GDP	-1.6	-2.3	0.7	1.1

Forecasts are compared with March/July preliminary national accounts data.
Averages for the past five years are calculated on the basis of spring and autumn forecasts concerning the budget year.

[1] Over- or understimation is indicated by average forecast error. [2] The average of absolute error values indicates the average magnitude of forecast errors, regardless of the direction of error.

Table 3. National balance of supply and demand, EUR million

	Current prices					
	2013	2014	2015	2016**	2017**	2018**
GDP at market prices	203 339	205 268	207 220	210 587	215 382	221 085
Imports of goods and services	80 724	79 462	76 627	77 677	80 898	84 921
Total supply	**284 063**	**284 730**	**283 847**	**288 264**	**296 280**	**306 006**
Exports of goods and services	78 924	77 600	77 284	78 009	81 183	85 260
Consumption	161 588	164 471	166 507	168 472	171 545	175 313
private	111 277	113 690	115 592	116 912	119 159	121 911
public	50 311	50 781	50 915	51 560	52 386	53 401
Investment	43 083	42 197	42 115	44 981	47 512	50 068
private	34 643	33 729	33 790	36 358	38 700	41 205
public	8 440	8 468	8 325	8 622	8 813	8 863
Total demand	**284 062**	**285 753**	**284 568**	**288 985**	**297 001**	**306 727**
	At reference year 2010 prices; not additive					
	2013	2014	2015	2016**	2017**	2018**
GDP at market prices	187 739	186 427	187 445	189 166	191 369	193 724
Imports of goods and services	75 779	75 795	75 507	77 455	79 742	82 518
Total supply	**263 518**	**262 222**	**262 952**	**266 621**	**271 110**	**276 242**
Exports of goods and services	75 554	74 883	75 310	76 289	78 495	81 345
Consumption	147 723	148 170	149 251	150 247	151 134	152 105
private	102 348	102 925	104 406	105 448	106 334	107 318
public	45 364	45 239	44 851	44 813	44 825	44 824
Investment	39 718	38 676	38 264	40 244	41 581	42 821
private	31 985	30 984	30 662	32 439	33 767	35 101
public	7 728	7 685	7 596	7 798	7 803	7 704
Total demand	**263 383**	**263 046**	**262 050**	**264 150**	**267 026**	**270 503**

Table 4. Financial balance of the Finnish economy

	2011	2012	2013	2014	2015
	relative to GDP, %				
Gross investment	**22.2**	**22.3**	**21.2**	**20.6**	**20.3**
households and non-profit institutions	6.6	6.5	6.2	5.8	5.7
non-financial corporations and financial and insurance corporations	11.9	11.8	10.8	10.6	10.6
general government	3.8	4.0	4.2	4.1	4.0
Gross saving [1]	**22.1**	**20.7**	**19.7**	**19.7**	**19.5**
households and non-profit institutions	4.7	4.5	5.0	4.2	3.8
non-financial corporations and financial and insurance corporations	14.7	14.3	13.2	14.6	14.5
general government	2.8	1.9	1.5	0.9	1.2
Financial surplus	**-1.3**	**-1.8**	**-1.7**	**-1.6**	**-0.1**
households and non-profit institutions	-2.1	-2.3	-1.5	-1.8	-2.0
non-financial corporations and financial and insurance corporations	1.8	2.6	2.3	3.4	4.6
general government	-1.0	-2.1	-2.6	-3.2	-2.7
Statistical discrepancy	0.0	-0.1	0.0	-0.5	-0.3

[1] Incl. capital transfers (net)

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