



MINISTRY OF FINANCE

# Economic Survey

Autumn 2018

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Economic Prospects



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<p><b>Abstract</b></p> <p>The year 2018 will be the peak of the current economic cycle. Finland's economic growth will slow clearly to annual growth rates of around 1½% during the coming years. Over the medium term in 2021 and 2022, economic growth is anticipated to return to the growth rate of potential output, that is, around 1%.</p> <p>Good economic and employment development and the consolidation measures taken in accordance with the Government Programme will balance public finances in the next few years. The general government budgetary position will return to surplus at the turn of the decade and the debt to GDP ratio will fall.</p> <p>Finnish GDP is expected to grow by 3.0% in 2018. Business expectations are positive, construction of major building investment projects is still continuing and sales expectations in service branches have improved. The employment rate trend exceeded the cyclical peak figures seen in 2008 and is now 71.8%. Continued strong economic growth will take the number of employed persons in 2018 up 2.6% year on year. Employment growth will continue to be rapid throughout the outlook period and the employment rate will rise to 73% in 2020.</p> <p>In 2019, economic growth is expected to slow to 1.7%. The biggest investment boom has now passed. The single most significant factor slowing economic growth is the contraction in construction investment. Private investment growth will continue, supported by large-scale investment projects. Growth in private consumption will be bolstered not only by the increase in the earnings level but also by the higher employment rate. Forest industry investments are already reflected in exports. The relatively low share of imported inputs in the forest industry improves the growth impact of net exports. Imports will be boosted not only by the demand for production inputs but also by domestic investment and consumption demand.</p> <p>In 2020, Finnish GDP is expected to grow by 1.6%. Growth in private consumption will decelerate further, despite the sum of wages and salaries rising due to the accelerating growth in the earnings level. With inflation picking up further, real income growth will slow, however. In 2020, exports will grow to reflect export demand, but this growth will underperform world trade growth.</p> <p>The increase in the earnings level will accelerate to 2.6% in 2019 due to timing factors relating to collectively agreed pay rises. In 2020, the rise of the rate of increase to 3.0% will be accelerated further by good economic growth and the re-introduction of holiday bonuses in the public sector.</p>			
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<p>Kuluvasta vuodesta on tulossa nykyisen suhdannevaiheen paras vuosi. Suomen talouden kasvu hidastuu kuitenkin selvästi noin 1½ prosentin vuosikasvuihin tulevina vuosina. Keskipitkällä aikavälillä vuosina 2021–2022 talouskasvun arvioidaan palaavan potentiaalisen tuotannon kasvuvauhtiin eli noin prosenttiin.</p> <p>Hyvä talous- ja työllisyyskehitys sekä hallitusohjelman mukaiset sopeutustoimet tasapainottavat julkista taloutta lähivuosina. Julkisen talouden rahoitusasema kääntyy ylijäämäiseksi vuosikymmenen taitteessa ja velka suhteessa bruttokansantuotteeseen laskee.</p> <p>Vuonna 2018 Suomen BKT:n ennustetaan kasvavan 3,0 %. Yritysten odotukset ovat myönteiset, rakennusinvestointien suurkohteiden rakentaminen jatkuu yhä ja palvelualojen myyntiodotukset ovat kohentuneet. Työllisyysasteen trendi ylitti kesäkuussa vuoden 2008 suhdannehuipun lukemat ja on nyt 71,8 %. Vahvana jatkuva talouskasvu nostaa v. 2018 työllisten määrän 2,6 % edellisvuotta korkeammaksi. Työllisyyden kasvu jatkuu nopeana koko ennustejakson ajan ja työllisyysaste nousee 73 prosenttiin v. 2020.</p> <p>Vuonna 2019 talouskasvu hidastuu 1,7 prosenttiin. Kovin investointivaihe on ohitettu. Merkittävin yksittäinen talouskasvua hidastava tekijä on rakennusinvestointien supistuminen. Yksityisten investointien kasvu jatkuu mittavien investointihankkeiden tukemana. Yksityisen kulutuksen kasvua tukee ansiotason nousun lisäksi työllisyyden koheneminen. Metsäteollisuuden investoinnit näkyvät jo viennissä. Metsäteollisuuden suhteellisesti alhainen tuontipanosten osuus kohentaa nettoviennin kasvuaikutusta. Tuontia kasvattaa tuotantopanosten kysynnän lisäksi myös kotimainen investointi- ja kulutuskysyntä.</p> <p>Vuonna 2020 BKT kasvaa 1,6 %. Yksityisen kulutuksen kasvu hidastuu edelleen, vaikka palkkasumman kasvu jatkuu, kun ansiotason nousu kiihtyy. Inflaation nopeutuessa edelleen reaalitulojen kasvu kuitenkin hidastuu. Vuonna 2020 vienti kasvaa vientikysynnän mukaan, mutta kasvu jää maailmankaupan kasvua hitaammaksi.</p> <p>Ansiotason nousu kiihtyy 2,6 prosenttiin v. 2019 sopimuskorotusten ajoitustekijöiden seurauksena. Vuonna 2020 ansiotason nousua 3,0 prosenttiin kiihdyttää edelleen hyvä talouskasvu ja julkisen sektorin lomarahojen palautuminen.</p>			
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<b>Referat</b>	<p>Innevarande år är på väg att bli det bästa året under den nuvarande konjunkturfasen. Den ekonomiska tillväxten i Finland avtar emellertid klart till en årlig tillväxt på cirka 1,5 % de kommande åren. På medellång sikt, 2021–2022, väntas den ekonomiska tillväxten återgå till en tillväxttakt som motsvarar den potentiella produktionstillväxten, det vill säga cirka en procent.</p> <p>Den goda ekonomiska utvecklingen och sysselsättningsutvecklingen samt anpassningsåtgärderna enligt regeringsprogrammet bidrar till att balansera de offentliga finanserna de närmaste åren. Saldot i de offentliga finanserna vänder och uppvisar ett överskott vid decennieskiftet och skulden i förhållande till bruttonationalprodukten minskar.</p> <p>År 2018 förutspås Finlands BNP växa med 3,0 %. Företagens förväntningar är positiva, byggandet av storprojekt i bygginvesteringarna fortsätter och servicebranschernas försäljningsutsikter har förbättrats. I juni passerade sysselsättningstrenden läget under konjunkturtoppen 2008 och sysselsättningsgraden är nu 71,8 %. Den fortsatt starka ekonomiska tillväxten medför en höjning av antalet sysselsatta under 2018 med 2,6 % jämfört med fjolåret. Sysselsättningen fortsätter att öka snabbt under hela prognosperioden och sysselsättningsgraden stiger till 73 % under 2020.</p> <p>År 2019 avtar den ekonomiska tillväxten till 1,7 %. Den starkaste investeringsfasen är förbi. Minskningen i bygginvesteringar är den viktigaste enskilda faktorn som bromsar upp den ekonomiska tillväxten. Ökningen i privata investeringar fortsätter med stöd av omfattande investeringsprojekt. Både den höjda inkomstnivån och den förbättrade sysselsättningen stöder den privata konsumtionens tillväxt. Investeringarna i skogsindustrin syns redan i exporten. Skogsindustrins relativt låga andel av importinsatserna höjer nettoexportens tillväxteffekt. Förutom efterfrågan på produktionsfaktorer ökas importen också av den inhemska investerings- och konsumtionsefterfrågan.</p> <p>År 2020 ökar BNP med 1,6 %. Den privata konsumtionens tillväxt avtar ytterligare, trots att lönesumman fortsätter att öka när höjningen av inkomstnivån tilltar. Ökningen av realinkomsterna avtar emellertid när inflationen tilltar. År 2020 ökar exporten i takt med exportefterfrågan, men tillväxten är långsammare än tillväxten inom världshandeln.</p> <p>Höjningen av inkomstnivån tilltar 2019 till 2,6 % som en följd av de avtalsenliga löneförhöjningar som infaller under året. År 2020 påskyndar den goda ekonomiska tillväxten och återinförandet av semesterpenningen inom den offentliga sektorn höjningen av inkomstnivån ytterligare till 3,0 %.</p>		
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## PREFACE

This Economic Survey offers projections of economic developments in 2018–2020. In addition to short-term prospects, it includes a medium-term economic outlook extending to 2022. 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 national accounts data for 2017 published by Statistics Finland in July 2018 and on other public statistical sources available by 30 August 2018.


Helsinki September 2018  
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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
HWI	Hamburgisches WeltWirtschafts Institut
IMF	International Monetary Fund
MoF	Ministry of Finance

Each of the figures presented in the tables has been rounded separately.

# Contents

<b>Preface</b> .....	7
<b>Summary</b> .....	11
<b>1 Economic outlook</b> .....	22
1.1 Global economy .....	22
1.2 Foreign trade.....	27
1.2.1 Exports and imports.....	27
1.2.2 Prices and current account .....	28
1.3 Domestic demand.....	31
1.3.1 Private consumption .....	31
1.3.2 Public consumption .....	33
1.3.3 Private investment.....	34
1.3.4 Public investment .....	37
1.4 Domestic production.....	38
1.4.1 Total output.....	38
1.4.2 Secondary production.....	40
1.4.3 Services .....	43
1.5 Labour force .....	45
1.6 Incomes, costs and prices.....	48
1.6.1 Wages and salaries .....	48
1.6.2 Consumer prices .....	49
2.1 General government finances.....	52
2.1.1 Estimates of fiscal policy impact .....	57
2.1.2 General government debt.....	61
2.2 Central government.....	65
2.3 County government.....	75

2.4	Local government .....	77
2.5	Social security funds .....	81
2.5.1	Earnings-related pension schemes .....	81
2.5.2	Other social security funds .....	82
2.6	Long-term sustainability of public finances .....	84

<b>Supplementary statistics</b> .....	87
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**Boxes:**

Effect of potential output measurement method on changes in structural balance .....	58
Contingent liabilities .....	63
The 2019 budget and central government spending limits .....	69

# Summary

## Economic outlook for 2018–2020

The year 2018 will be the peak of the current economic cycle as economic growth is anticipated to still accelerate slightly compared to last year. Finland's economic growth will slow clearly to annual growth rates of around 1½% during the coming years. Over the medium term in 2021 and 2022, economic growth is anticipated to return to the growth rate of potential output, that is, around 1%. Historically, the growth anticipated over the medium term is slow, which is due to structural factors in the economy.

In the early part of 2018, the rate of employment growth has even been faster than could be assumed on the basis of economic activity. The number of employed persons is currently greater than ever before. Slowing economic growth will slow employment growth, too.

Good economic and employment development and the consolidation measures taken in accordance with the Government Programme will balance general government finances in the next few years. The general government budgetary position will return to surplus at the turn of the decade and the debt to GDP ratio will fall. Cyclical strengthening of general government finances will not, however, safeguard sustainable financing for general government.

## Global economic growth levelling off

The global economy will continue to boom, but the fastest growth period has already passed. Europe in particular is showing signs of slowing economic growth. However, unemployment is decreasing and consumer confidence is strong. Infla-

tion has picked up during the current year, but core inflation still remains slow. Short-term market interest rates are still negative but expected to rise.

The US economy is growing rapidly and unemployment is very low. US economic growth has been driven by private consumption. Inflation is picking up due to employment and consumption growth, and the Federal Reserve is expected to continue tightening monetary policy.

World trade growth will slow during the outlook period. Growth is set to be modest in the euro area in particular. World trade growth will be supported by emerging economies. Positive economic development has pushed up the price of oil during the current year, but the trend has been more varied in recent months. In the next few years, oil prices will rise due to production limits and strong demand. The price development of raw materials has fluctuated during the early part of the year and moderate increases are anticipated over the outlook period.

### **Employment now at a record high**

Finnish GDP is expected to grow by 3.0% in 2018. Business outlook for output is positive, construction of major building investment projects is still continuing and sales expectations in service branches have improved. On the other hand, there are also signs of constraints on growth as the value of new orders contracted in January–June by 4.5% year on year. In addition, responses to surveys indicate that more enterprises are facing a shortage of skilled labour and also reduced production capacity.

The number of employed persons has risen to a high level. The employment rate trend exceeded the cyclical peak figures seen in 2008 and is now 71.8%. Continued strong economic growth will take the number of employed persons in 2018 up 2.6% year on year. Rapid employment growth will continue throughout the outlook period and the employment rate will rise to 73% in 2020.

Unemployment has fallen rapidly throughout the country and across all age groups since the start of the year 2018. Driven by the rapid rise in employment, the number of unemployed persons will decrease clearly more in 2018 than in 2017. The projected unemployment rate for the whole of 2018 is 7.4%. Favourable development

will continue and unemployment will decrease steadily over the outlook period. The 2020 unemployment rate is forecast to be 6.6%.

In 2018, the growth in private consumption will accelerate as a result of the rise in employment and in the earnings level. This is also why GDP growth will accelerate year on year. Private investment growth will also continue and support GDP growth as brisk growth will be seen in housing construction in particular. The supporting impact of domestic demand on economic growth will increase while at the same time the importance of net exports for economic growth will decrease as import growth remains robust.

Consumer prices will rise broadly across the commodity groups in 2018 and inflation will accelerate to 1.1%. Inflation will be driven up mainly by increases in service, food and energy prices. Tax increases will accelerate inflation by more than 0.3 percentage points.

In 2019, economic growth is expected to slow down to 1.7%. The single most significant factor slowing economic growth is the contraction of construction investment. Construction investment is anticipated to contract in the next few years because housing production has risen to an exceptionally high level. In addition, many commercial building projects are nearing completion. The number of building permits granted fell in January–May by more than 10% year on year.

In 2019, the biggest investment boom period will have been passed. Private investment growth will continue, albeit at a slower rate. There are several very extensive investment projects being planned in Finland, particularly in the forest industry. Some of these projects are expected to get underway during the outlook period. Employment growth is anticipated to speed up investment in technology and training as well. Research and development investment is forecast to grow at an annual rate of around 5%.

In 2019, private consumption growth will be supported by higher earnings and a higher employment rate. The sum of wages and salaries will increase by 3.5% and maintain the high rate of increase in household disposable income. The growth in real household disposable income will, however, slow as inflation picks up. This is why private consumption growth will also slow in 2019.

Strong world trade growth will provide good prospects for Finnish exports in 2019. Net exports will support growth throughout the outlook period even though imports of production inputs will increase. Forest industry investments are already reflected in exports. The relatively low share of imported inputs in the forest industry improves the growth impact of net exports. Imports will be boosted not only by the demand for production inputs but also by domestic investment and consumption demand.

The current account has reached a surplus driven by the trade balance, but the balance of services still remains in deficit. The current account will show a slight surplus throughout the outlook period, primarily due to favourable export development. However, the current account surplus will be reduced by a stronger increase in export prices than in import prices and a deficit in factor incomes and income transfers.

In 2020, Finnish GDP is expected to grow by 1.6%. Growth in private consumption will decelerate further, despite the sum of wages and salaries rising due to the accelerating growth in the earnings level. With inflation picking up further, real income growth will slow, however. In 2020, exports will grow to reflect export demand, but this growth will underperform world trade growth.

The earnings level will rise by 1.8% in 2018. Wage drifts are anticipated to remain below average due to company-level agreements and company-specific items. The increase in the earnings level will accelerate to 2.6% in 2019 due to timing factors relating to collectively agreed pay rises. In 2020, the rise of the rate of increase to 3.0% will be accelerated further by good economic growth and the re-introduction of holiday bonuses in the public sector.

### **Many of the targets set in the Government Programme will be reached, but sustainability of public finances is not secured**

Good economic and employment development and the consolidation measures taken in accordance with the Government Programme will balance public finances in the next few years. The general government budgetary position will show a surplus at the turn of the decade and remain in balance until 2022.



It appears that the targets set by the Government for general government debt and budgetary position will be largely reached. The general government debt to GDP ratio will fall below 60% in the current year and continue to fall until the early 2020s. Likewise, the budgetary position targets set for the sectors of general government, that is, central government, local government, and social security funds, are in practice being reached. Central and local government will, however, remain slightly in deficit. Therefore, nominal public debt will still continue to grow in the early 2020s.

Despite the improvements, the financial foundations of public finances are not sustainable. Population ageing will increase public expenditure, reduce the size of the working-age population and weaken opportunities for economic growth. Over the long term, economic growth is anticipated to be in the 1% to 1.5% range and, with current structures in place, the income generated to the public finances will not be enough to finance public services and benefits.

### Trade war posing the biggest threat to economic growth

The risks seen in the economic outlook are more strongly skewed to the downside than earlier. A key risk is trade war escalation. Trade barriers between key economies have a broader impact than appears to be the case at first glance. Tariffs imposed by an individual state may also have an adverse impact on the country's

**Table 1. Key forecast figures**

	2017	2015	2016	2017	2018**	2019**	2020**
	EUR bn	change in volume, %					
GDP at market prices	224	0.1	2.5	2.8	3.0	1.7	1.6
Imports	85	3.2	5.6	3.5	3.5	3.0	2.5
Total supply	309	1.0	3.3	3.0	3.2	2.0	1.8
Exports	86	0.9	3.9	7.5	4.9	3.9	3.2
Consumption	173	1.3	1.9	0.8	1.6	1.3	1.1
private	122	1.7	2.0	1.3	2.1	1.6	1.4
public	51	0.2	1.8	-0.5	0.6	0.5	0.6
Investment	50	0.7	8.5	4.0	4.1	1.5	1.9
private	40	2.2	8.7	4.6	4.6	2.9	2.4
public	9	-5.2	7.9	1.8	1.9	-4.4	-0.1
Total demand	310	1.2	3.3	3.1	3.1	2.0	1.8
domestic demand	224	1.3	3.1	1.6	2.4	1.2	1.2

**Table 2. Other key forecast figures**

	2015	2016	2017	2018**	2019**	2020**
GDP, EUR bn	210	216	224	234	242	251
Services, change in volume, %	0.4	1.7	1.9	2.6	1.8	1.5
Industry, change in volume, %	-1.7	2.3	7.1	6.1	2.6	2.3
Labour productivity, change, %	0.2	2.0	2.3	1.2	1.1	1.0
Employed labour force, change, %	-0.4	0.5	1.0	2.6	0.9	0.6
Employment rate, %	68.1	68.7	69.6	71.7	72.4	73.0
Unemployment rate, %	9.4	8.8	8.6	7.4	6.9	6.6
Consumer price index, change, %	-0.2	0.4	0.7	1.1	1.4	1.6
Index of wage and salary earnings, change, %	1.4	0.9	0.2	1.8	2.6	3.0
Current account, EUR bn	-1.5	-0.7	1.6	1.2	1.6	1.6
Current account, relative to GDP, %	-0.7	-0.3	0.7	0.5	0.7	0.6
Short-term interest rates (3-month Euribor), %	-0.0	-0.3	-0.3	-0.3	-0.0	0.2
Long-term interest rates (10-year govt. bonds), %	0.7	0.4	0.6	0.8	1.2	1.7
General government expenditure, relative to GDP, %	57.1	55.9	54.0	52.6	51.9	51.4
Tax ratio, relative to GDP, %	43.9	44.0	43.3	42.2	42.1	42.0
General government net lending, relative to GDP, %	-2.8	-1.7	-0.7	-0.7	-0.1	0.2
Central government net lending, relative to GDP, %	-3.0	-2.7	-1.8	-1.5	-0.7	-0.7
General government gross debt, relative to GDP, %	63.5	62.9	61.3	59.9	59.1	57.9
Central government debt, relative to GDP, %	47.6	47.4	47.3	46.0	45.3	44.3

own industry. The ramping up of the trade war would slow world trade growth and, consequently, global economic growth. The growth prospects of the global economy would also deteriorate if China's indebtedness escalated in the conditions of contracting economic growth.

The better-than-expected development of emerging economies is a positive risk. The deeper integration of India in particular into international trade would have a positive effect on the global economy.

Household indebtedness in relation to disposable income will continue to grow. This trend will be supported by low interest rates, positive development of the labour market and strong growth in housing construction. The problems of indebtedness will be heightened, however, when interest rates rise in due course and households have to make cuts in their other consumption.

## Medium-term outlook

Finnish GDP growth accelerated to 2.8% last year. This year, economic growth is still expected to remain strong at 3.0% before slowing in the 2019–2020 period to a more moderate level of around 1.5%. In the medium term in the 2021–2022 period, economic growth is projected to return to the level of potential output growth, that is, around 1%.<sup>1</sup> Historically, expected medium-term growth is slow, and this is due to structural factors of the economy.

Labour input growth will increase potential output growth slightly during the current year and the two following years. After that, labour input will begin to shrink as the size of the working-age population continues to contract. Labour input growth is also restricted by the high structural unemployment rate.

Growth in total factor productivity has been modest in the past few years and will continue to be poor from a historical perspective. Output has dropped in high-productivity industries and, at the same time, services have gained increasing prominence in the economy. In the medium term, the trend growth in total factor productivity is projected to approach 1%, whereas the average annual growth seen in the early years of the 2000s was above 2%. The estimated trend growth in total factor productivity will, however, be clearly above the average seen over the past five years.

The economy's potential output depends not only on total factor productivity and labour input, but also on the existing capital stock. For several years, a low rate of investment slowed capital stock growth and weakened future economic growth potential. Investment has, however, picked up and the rise in the rate of investment will increase the level of potential output through capital stock growth by an annual rate of around ½%.

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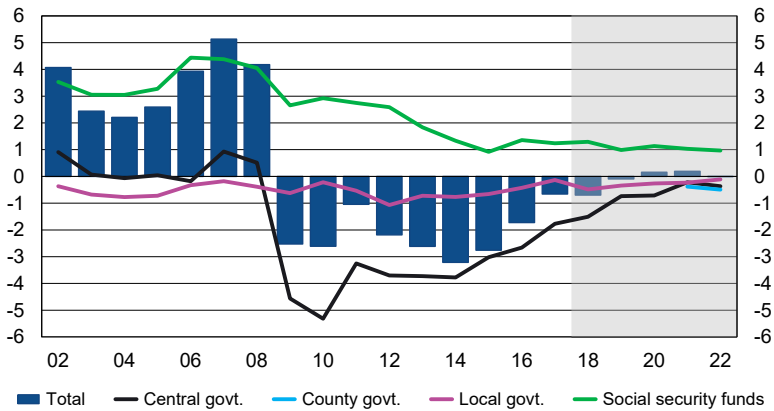
1 The medium-term outlook can be examined on the basis of potential output, because this is thought to determine the economy's growth prospects. In its assessments of potential output, the Ministry of Finance uses the production function method as developed jointly by the European Commission and Member States, in which potential output growth is divided between projections of potential labour input, capital and total factor productivity. Potential output and output gap are latent variables, the assessment of which involves uncertainties, particularly during a strong economic cycle and under conditions of rapid changes in the production structure.

**Table 3. Key forecast figures for the medium term**

	2016	2017	2018**	2019**	2020**	2021**	2022**
GDP at market prices, change in volume, %	2.5	2.8	3.0	1.7	1.6	1.1	1.0
Consumer price index, change, %	0.4	0.7	1.1	1.4	1.6	1.8	2.0
Unemployment rate, %	8.8	8.6	7.4	6.9	6.6	6.6	6.6
Employment rate, %	68.7	69.6	71.7	72.4	73.0	73.2	73.3
General government net lending, relative to GDP, %							
Central government	-1.7	-0.7	-0.7	-0.1	0.2	0.2	-0.0
County government	-2.7	-1.8	-1.5	-0.7	-0.7	-0.2	-0.4
Local government						-0.4	-0.5
Social security funds	-0.4	-0.1	-0.5	-0.3	-0.3	-0.2	-0.1
Structural balance, relative to GDP, %	1.4	1.2	1.3	1.0	1.1	1.0	1.0
General government gross debt, relative to GDP, %	-0.5	-0.3	-1.1	-0.7	-0.4	-0.4	-0.6
General government gross debt, relative to GDP, %	62.9	61.3	59.9	59.1	57.9	57.5	57.0
Central government debt, relative to GDP, %	47.4	47.3	46.0	45.3	44.3	44.1	43.5
Output gap, % of potential output <sup>1</sup>	-2.1	-0.6	0.7	0.8	1.0	1.0	1.0

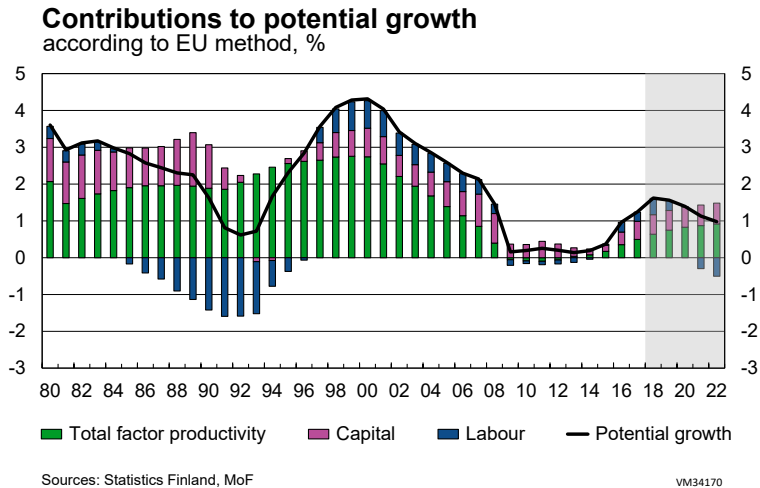
<sup>1</sup> Estimated according the method developed jointly by the EU Commission and Member States

**The financial balance of general government relative to GDP, %**



Sources: Statistics Finland, MoF

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The 2018 estimate is that the output gap will stand at just over  $+\frac{1}{2}\%$  of potential output. When GDP growth slightly exceeds its potential, the output gap will end up being around  $+1\%$  in 2020 and remain at that level in the medium term. The output gap will close in the next period of economic decline. Fiscal policy

## Fiscal Policy

The economic policy objective of Prime Minister Sipilä's Government is to bring the Finnish economy to a path of sustainable growth and increasing employment, and to secure the funding of public services and social security. To support this objective, the Government set several targets relating to employment development and public finances in its programme.

It appears that the targets set by the Government for the employment development and for the general government debt and budgetary position will be largely reached. The employment rate will rise to 72% next year and the number of employed persons will increase by more than 110,000 persons during the government term. The public debt-to-GDP ratio took a downturn in 2016 and will continue to fall in the next few years.

It also appears that the budgetary position targets set for each of the general government sectors – central government, local government and social security funds – will also be broadly reached. Central government and local government will, how-

ever, show a slight deficit in 2021. Therefore the Government's target of ending living on debt is not going to be fully reached.

The good economic cycle has made it easier to reach the targets. The Finnish economy is now already in its third consecutive year of upswing. In 2016 and 2017, employment was still picking up at a relatively sluggish rate, but the current year has seen very fast growth in employment. Economic and, in particular, employment growth have increased tax revenue and reduced unemployment expenditure and therefore strengthened general government finances.

The Government has supported sustainable economic and employment growth through structural reforms. Efforts have been made to increase demand for labour through the Competitiveness Pact that entered into force in 2017 and the conclusion of which was facilitated by the Government through, for example, tax solutions. The Pact reduced employment costs and improved the competitiveness of Finnish enterprises. On the other hand, the supply of labour has been bolstered through measures including removing incentive traps, supporting labour mobility and reforming the unemployment security system and public employment services. At the same time, the Government has retained the policy outlined in the Government Programme according to which employees' taxation will not be tightened.

Measures curbing public expenditure that have a rapid effect have also been taken during the government term and these have contributed towards the strengthening of public finances. One of the government term's most significant projects impacting general government finances and their structures over the longer term is the health, social services and regional government reform, which is currently under deliberation by Parliament and due to enter into force in 2021.

The targets set for the government term are interim steps towards sustainable economic growth and public finances. When assessing the real robustness of public finances, we must look over the longer term beyond individual economic cycles. Public finances must be able to sustain future recessions, projected expenditure pressures and any unpleasant surprises without uncontrolled increases in the debt-to-GDP ratio.

Despite the improvements seen in recent years, public finances are not on a sustainable foundation. Population ageing will increase public expenditure, reduce the size of the working-age population and weaken potential growth. In future, a dwindling group in the population will fund public services and social security. The rapid rate of public expenditure growth will continue, but the increase in general government revenue will be slower than expenditure growth as economic growth slows. Over the long term, economic growth is projected to be in the range of 1% to 1.5%.

Fiscal buffers for future recessions and unpleasant surprises are clearly slimmer than earlier. Last year, the ratio of general government debt to GDP remained almost 29 percentage points above the level seen before the onset of the financial crisis in 2008. The recovery of public finances from the deep recession requires budgetary discipline during economic good times and long-term endeavours to strengthen general government finances and improve the conditions for economic growth.

General government's contingent liabilities have also grown significantly since the financial crisis. This has increased the risks faced by general government finances. The amount of state securities and guarantees has grown rapidly in recent years. On an international scale, Finland's government guarantees are extensive, with the rate being clearly the highest among the EU countries according to Eurostat statistics.

The Finnish Government's main objective, securing the financing of public services and social security in the long term, still requires further efforts. Measures aiming at sustainable economic growth, higher employment and improved functioning of the labour market should be continued. The rapid increase in employment must not overshadow the fact that, while the number of unemployed persons is still high, more and more sectors are facing a shortage of competent labour. It is essential for the sustainability of public finances to ensure the conditions for the improvement in employment rates being permanent.

# 1 Economic outlook

## 1.1 Global economy

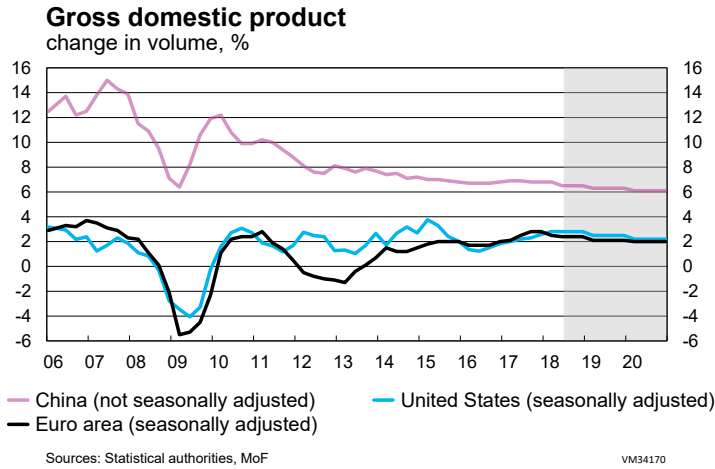
### **Global economy showing signs of slowing**

The global economy continues to boom, but there are increasingly more signs of the fastest growth period being about to level off. Europe in particular is showing signs of slowing economic growth. World trade growth will also slow during the outlook period. The risks seen in the relatively positive global economic outlook are more skewed to the downside. The escalation of the trade war would slow world trade growth and, consequently, global economic growth.

The US economy is growing rapidly, and unemployment is very low. Preliminary data for the early part of the year has been very positive. Economic growth has been driven by private consumption. However, leading indicators point to slowing growth in the near future. The outlook of industry as regards new export orders is weakening. Inflation is picking up due to employment and consumption growth, and the Federal Reserve is expected to continue tightening monetary policy.

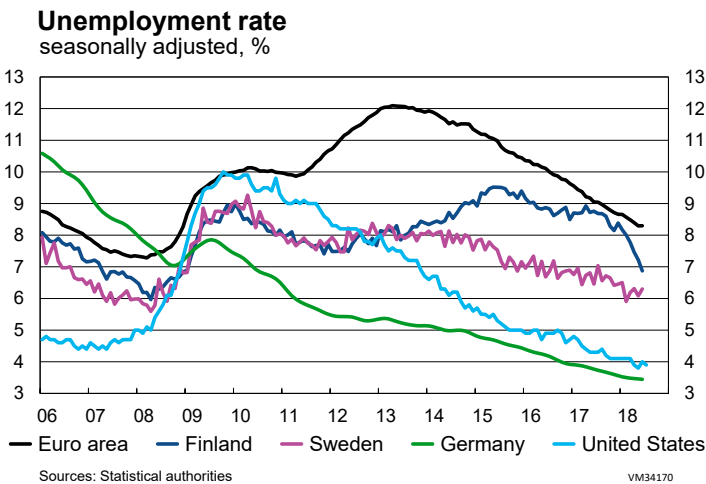
In the euro area, economic growth is slowing. The preliminary growth figures for the early part of 2018 are modest compared with the recent past. For example, German industrial output development was weaker than expected at the beginning of the summer, and preliminary indicators point to a slowing of industrial output growth in the near future. However, unemployment is decreasing and consumer confidence is strong at least in Italy and Spain. Inflation has picked up during the current year, but core inflation still remains slow. Short-term market interest rates are still negative but expected to rise.





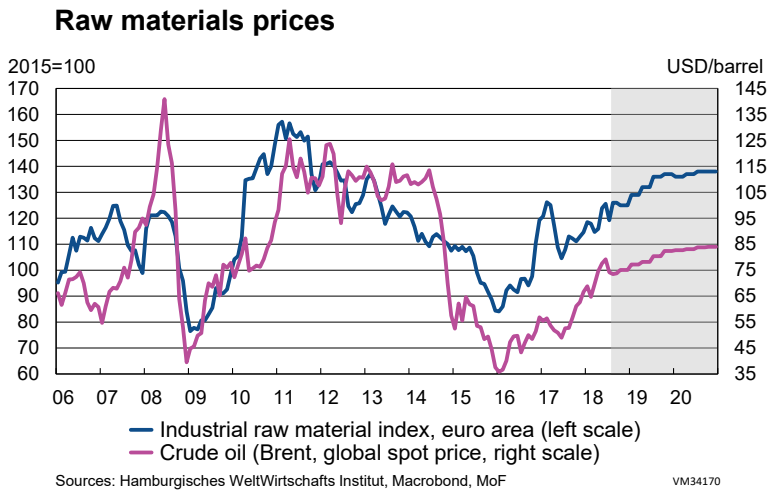
Economic growth was strong in China in the early part of the year as, according to official statistics, economic growth only slowed slightly during the second quarter of the current year. The prolonged slowing of fixed investment is caused by a decrease in public investment. Chinese economic growth is driven by private consumption and the current account surplus continues to contract. The slowing of China’s economic growth will continue in the next few years.

The early part of the year was promising as regards economic growth for Russia. Manufacturing industry growth was seen almost throughout the country. Decelerating inflation is raising real income, which buoys private consumption. However, in the next few years, Russia’s economic growth will slow closer to its potential, which is modest largely due to structural reasons.



The outlooks for other emerging economies are varied. Rapid economic growth is continuing in India, while recovery in Brazil and South Africa is on a weaker footing. All in all, however, the relatively rapid growth of the global economy is driven by the emerging economies.

Bolstered by positive economic development, oil prices have risen during the current year, but more fluctuation has been seen in recent months. Price increases will be seen in the next few years due to production limits and strong demand. The price development of raw materials has fluctuated during the early part of the year, and moderate increases are anticipated over the outlook period.



### Fastest growth period in world trade levelling off

World trade has entered a slowing trend during the current year. Growth in the euro area in particular has been modest. On the other hand, trade growth has been seen in the USA and emerging economies. In the next few years, a moderate slowdown will continue in world trade growth. Growth will be boosted by emerging economies in particular.



### Threat of a trade war a key risk

The risks seen in the economic outlook are more strongly skewed to the downside than previously assessed. A key risk is trade war escalation. Due to the diversity of global value chains, trade barriers between key economies have a broader impact than appears to be the case at first glance. Tariffs imposed by an individual state may also have an adverse impact on the country's own industry. The ramping up of the trade war would slow world trade growth and, consequently, global economic growth.

Other key risks are China's indebtedness in the conditions of declining economic growth, risks related to the return to normal monetary policy and an escalation of geopolitical tensions, which may impede investment activity and push up energy prices.

The better-than-expected development of emerging economies is a positive risk. The deeper integration of India in particular into international trade would have a positive effect on the global economy.

**Table 4. Gross domestic product**

	2015	2016	2017	2018**	2019**	2020**
	change in volume, %					
World (PPP)	3.3	3.2	3.7	3.8	3.7	3.6
Euro area	2.2	1.8	2.4	2.2	2.0	1.9
EU	1.6	1.7	2.3	2.1	1.8	1.7
Germany	1.5	1.9	2.2	2.3	2.1	2.0
France	1.2	1.2	2.2	1.9	1.8	1.7
Sweden	3.9	3.3	2.3	2.6	2.0	1.8
United Kingdom	2.2	1.8	1.7	1.3	1.0	0.8
United States	2.6	1.5	2.3	2.8	2.5	2.2
Japan	1.1	1.0	1.7	1.1	0.9	0.8
China	6.9	6.7	6.9	6.5	6.3	6.1
India	8.2	7.1	6.7	7.5	7.6	7.4
Russia	-3.7	-0.2	1.5	1.5	1.4	1.3

Sources: Eurostat, statistical authorities, IMF, MoF

**Table 5. Background assumptions**

	2015	2016	2017	2018**	2019**	2020**
World trade growth, %	2.0	1.6	4.8	4.8	4.6	4.4
USD/EUR	1.10	1.10	1.15	1.17	1.09	1.07
Industrial raw material price index, EA, € (2015=100)	100.1	96.3	114.5	122.0	133.5	137.3
Crude oil (Brent), \$/barrel	53.5	45.1	54.8	72.8	79.6	83.4
3-month Euribor, %	-0.0	-0.3	-0.3	-0.3	-0.0	0.2
Government bonds (10-year), %	0.7	0.4	0.6	0.8	1.2	1.7
Export market share (2000=100) <sup>1</sup>	0.9	0.9	1.0	1.0	0.9	0.9
Import prices, %	-4.3	-2.5	3.5	3.0	2.4	2.1

<sup>1</sup>Ratio of export growth to world trade growth

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

## 1.2 Foreign trade

Finland's foreign trade growth continued in the early part of 2018. Growth in exports was boosted, above all, by the brisk growth in world trade. In 2019 and 2020, world trade will grow more slowly than this year. The threat of a trade war is also creating the risk of slower growth than forecast. Finland's export demand development is also overshadowed by the prospect of more moderate economic development in the euro area.

### 1.2.1 Exports and imports

#### Exports and imports continuing to grow

According to preliminary Finnish Customs statistics, the value of goods exports increased in the first half of the year at a rate of around 7%. Both export prices and volumes grew, but export volume growth was moderate in the first quarter of the year. In goods exports, the reference level for the first quarter is high due to the ship deliveries that took place last year. Like that of goods exports, the volume of service exports also grew in the first quarter. Overall, the rate of export volume growth is anticipated to be just under 5% this year.

The outlook for the euro area has somewhat deteriorated for this year, which is also reflected in Finnish exports. The euro area accounts for a large share of Finland's exports, so Finland's imputed export demand will not keep up with world trade development. On the other hand, the more favourable outlooks of the United States and emerging economies are strengthening export demand. Consequently, exports will still grow rapidly this year and growth will continue throughout the outlook period.

**Table 6. Foreign trade**

	2015	2016	2017	2018**	2019**	2020**
	<b>change in volume, %</b>					
Exports of goods and services	0.9	3.9	7.5	4.9	3.9	3.2
Imports of goods and services	3.2	5.6	3.5	3.5	3.0	2.5
	<b>change in price, %</b>					
Exports of goods and services	-0.9	-2.1	3.1	2.4	1.9	1.5
Imports of goods and services	-4.3	-2.5	3.5	3.0	2.4	2.1

In goods exports, motor vehicle exports have grown significantly in the early part of 2018 and export growth will continue this year. Investments made in the forest industry are already reflected in exports during 2018, with exports of many forest industry products growing rapidly. Forest industry export prospects are favourable also for the 2019–2020 period. Ship orders received earlier will also increase exports during the outlook period. As with exports of goods, service exports are also continuing to grow, although slightly more slowly compared with the previous year. Overall, service exports account for just under one third of export, and this share is expected to remain unchanged during the outlook period.

According to preliminary Finnish Customs statistics, the value of goods imports increased by around 5% in the first half of the year. At the same time, according to the national accounts, growth in the volume of imports outpaced that of exports, at 3.4%, in the first quarter. Import figures of goods were increased by imports including those of consumer durables and goods used as inputs in industrial production. Over the outlook period, imports of goods will be accelerated by imports of intermediate products used by the manufacturing industry. The accelerating rate of investment growth in 2020 will also be reflected in imports. On the other hand, growth in consumer goods imports in particular will be steady and moderate, although imports of consumer durables will increase rapidly, particularly at the beginning of the outlook period.

## 1.2.2 Prices and current account

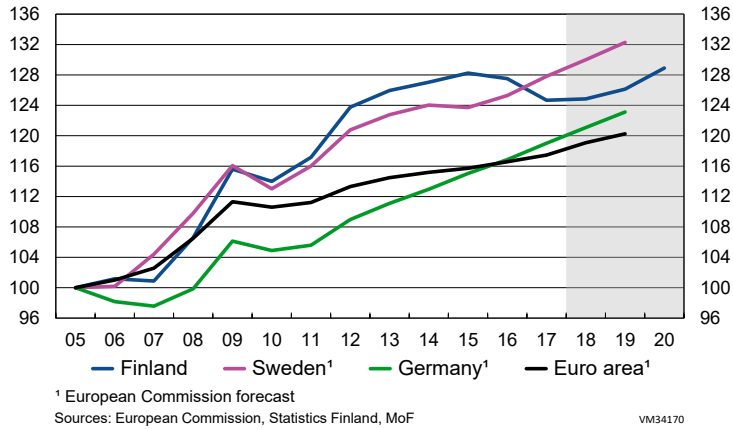
### **Current account will remain in surplus**

Import prices have risen rapidly in line with oil prices in 2018. The price development of manufacturing industry raw materials and oil will be reflected in rising import prices at the beginning of the outlook period. The most rapid growth in both import and export prices will be seen in 2018 and growth will be more moderate in the coming years. In addition to oil, export prices will be driven up by forest industry raw material prices. Throughout the outlook period, the value of imports and exports will increase thanks to volume growth and price hikes.

The terms of trade will weaken slightly during the outlook period as import prices will increase more than export prices. The weakening of the terms of trade will, however, be moderate as price increases in raw material imports will also be reflected as increases in export prices. In addition, domestic raw material prices will

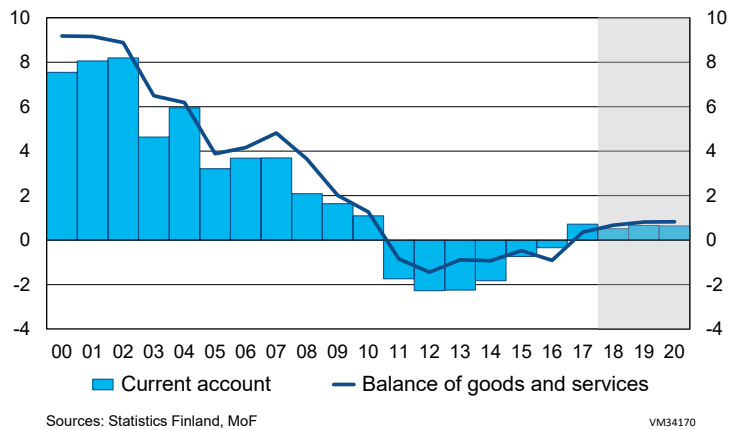
### Unit labour costs

2005=100, nominal



### Current account

relative to GDP, %



also drive export prices up. Export conditions will still be improved during the early parts of the outlook period by the trend in unit labour costs, which is moderate compared with competitor countries. Towards the end of the outlook period, the depreciation of the euro will improve export conditions.

All in all, the rapid growth in world trade will provide good prospects for Finnish exports during the outlook period even though imputed export demand will grow more slowly than world trade due to the more moderate growth of the euro area. In 2018, export growth will slightly outperform world trade growth, while in 2019

export growth will only be 3.9% and in 2020 3.2%. Exports will continue to be driven by exports of goods.

The current account under the balance of payments showed a surplus of EUR 1.6 billion in 2017, driven by the trade balance and primary income account surpluses. The current account will remain steadily in surplus throughout the outlook horizon. Goods trade surplus will remain stable, whereas the deficit of the services balance will decrease, with both of these due to the favourable development in the net export volumes of goods and services. The current account surplus will be eroded by import prices rising more quickly than export prices and by a deficit in factor incomes and income transfers.

**Table 7. Current account**

	2015	2016	2017	2018**	2019**	2020**
	EUR bn					
Balance of goods and services	-1.0	-2.0	0.8	1.6	2.0	2.1
Factor incomes and income transfers, net	-0.5	1.2	0.8	-0.4	-0.4	-0.5
Current account	-1.5	-0.7	1.6	1.2	1.6	1.6
Current account, relative to GDP, %	-0.7	-0.3	0.7	0.5	0.7	0.6



## 1.3 Domestic demand

### 1.3.1 Private consumption

#### **Household income will increase as employment rate rises**

Growth of household real disposable income will accelerate to more than 2% in 2018. Income growth will be supported by rising employment and earnings levels, taking growth of the sum of wages and salaries to more than 4%. Real income growth will, however, be curbed by inflation picking up. The fastest rate of consumption growth has been seen in the durables category and this trend is forecast to continue further in the next few years. Consumption growth will also accelerate in other product categories this year.

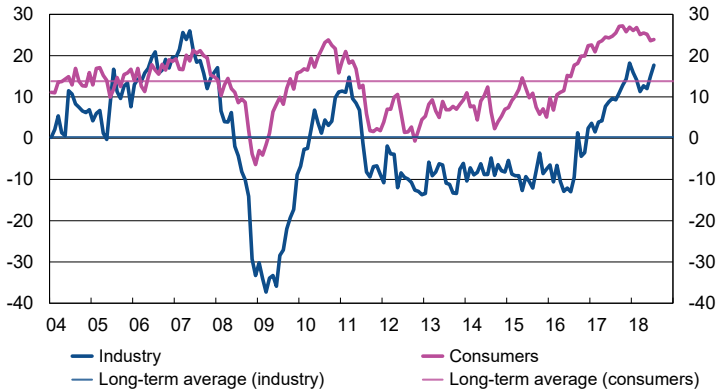
Growth of household disposable income will also be supported by growth of social transfers as pension income growth will remain strong, with the average annual rate exceeding 3%. On the other hand, income transfer growth will be reduced by lower unemployment expenditure.

In 2019, private consumption growth will be supported by higher earnings and a rising employment rate. The sum of wages and salaries will increase by 3.5% and maintain the high rate of increase in household disposable income compared with recent years. However, accelerating inflation will slow the growth in real household disposable income, decelerating the growth of private consumption.

In 2020, growth in the sum of wages and salaries will be most affected by the accelerating rise in the earnings level. Although slowing, the improved employment rate will also buoy up growth in household purchasing power. Real income growth will be more sluggish due to rising inflation, which will further slow down the increase in private consumption.

Household net savings rate fell to –1.3% in relation to disposable income in 2017, which is an exceptionally low rate even for a peak period in the economic cycle. Consumption growth will slow during the outlook period, restoring the household savings rate closer to the average levels of the 2000s. Household indebtedness in ratio to disposable income will continue to grow. This trend will be supported by low interest rates, positive development of the labour market and strong growth in housing construction. The problems of indebtedness will be heightened, however, when the level of interest rates rises in due course and households have to make cuts in their other consumption.

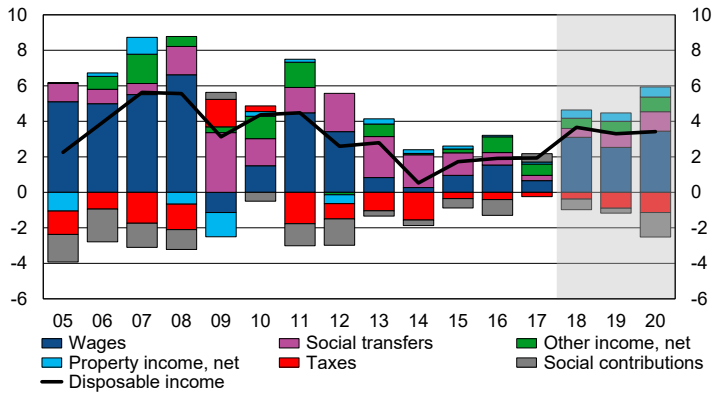
### Industry and consumer confidence balance, seasonally adjusted



Source: European Commission

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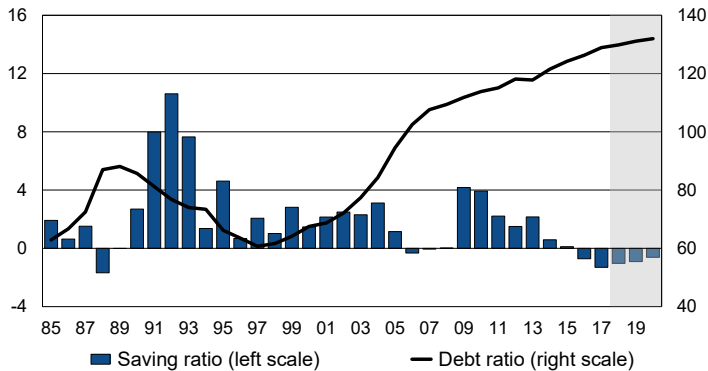
### Households' disposable income change and growth impact, %



Sources: Statistics Finland, MoF

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### Household savings and debt % of disposable income



Sources: Statistics Finland, MoF

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### 1.3.2 Public consumption

Public consumption expenditure contracted 0.6% last year. This was due to a decrease in central government consumption expenditure. The volume of public consumption is anticipated to grow very moderately throughout the outlook period. The largest items of public consumption expenditure are personnel expenses and goods and services purchased. Growth in this expenditure will be curbed by the Government's consolidation measures. In 2018 and 2019, increases in the price of public consumption will be accelerated by, among other things, pay rises and a non-recurring productivity-based payment. In addition, the price of public consumption will be upwardly affected in 2019 by the ending of the Competitiveness Pact holiday bonus cut. The forecast for general government finances takes into account the deferral of the regional government, health and social services reform until 2021. The establishment of the counties will change the structure of Finland's public sector from 2021 onwards.

**Table 8. Consumption**

	2017	2015	2016	2017	2018**	2019**	2020**
	share, %	change in volume, %					
Private consumption	100.0	1.7	2.0	1.3	2.1	1.6	1.4
Households	95.2	1.9	1.9	1.4	2.2	1.7	1.4
Durables	9.9	2.9	5.3	3.5	5.8	2.3	2.1
Semi-durables	8.7	1.0	1.3	2.7	3.2	1.1	0.9
Non-durable goods	25.6	0.7	1.1	-0.4	1.6	1.4	1.2
Services	50.2	1.4	1.6	1.8	1.7	1.6	1.4
Consumption by non-profit institutions	4.8	-2.0	2.7	0.2	0.0	0.5	0.5
Public consumption	100.0	0.2	1.8	-0.5	0.6	0.5	0.6
<b>Total</b>		<b>1.3</b>	<b>1.9</b>	<b>0.8</b>	<b>1.6</b>	<b>1.3</b>	<b>1.1</b>
Individual consumption expenditure in general government		0.9	1.1	0.1	0.9	0.8	0.6
Total individual consumption expenditure		1.5	1.7	1.0	1.2	1.1	1.4
Households' disposable income		1.7	1.9	1.9	3.7	3.3	3.4
Private consumption deflator		0.3	0.7	1.1	1.2	1.5	1.7
Households' real disposable income		1.4	1.2	0.8	2.5	1.8	1.7
		%					
Consumption as proportion of GDP (at current prices)		79.7	78.9	77.3	76.1	75.8	75.6
Household savings ratio		0.1	-0.7	-1.3	-1.0	-0.9	-0.6
Household debt ratio <sup>1</sup>		124.2	126.3	128.9	129.9	131.3	132.2

<sup>1</sup> Household debt at end-year in relation to disposable income.

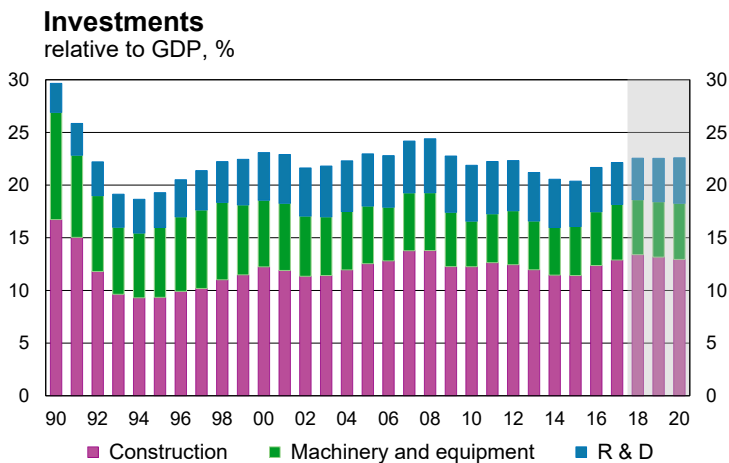
### 1.3.3 Private investment

#### The biggest investment boom has now passed

Investment in the national economy grew very strongly in the early part of 2018. Investment growth is, however, expected to slow as, for example, the number of building permits granted has taken a clear downturn and industrial companies estimate that they will reduce their investment compared with last year. The current changes in international trade policy are not anticipated to have a direct significant impact on Finland. However, the mere threat of a trade war may erode confidence in continued economic growth and, consequently, weaken global investment demand. This would affect the amounts of investment goods exported by Finland and in this way also the investment needs of Finnish enterprises.

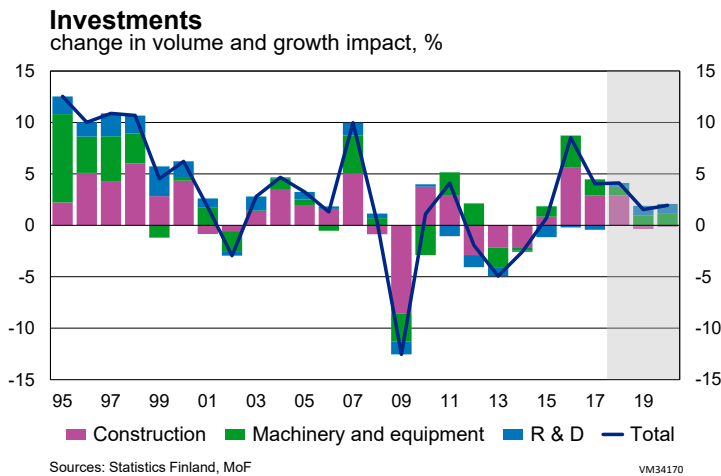
There are several highly substantial investment projects being planned in Finland, particularly in the forest industry. Some of these projects are expected to get underway during the outlook period. All in all, private investment is projected to grow by an annual average of 3% over the outlook period. The relatively rapid increase in private investment will take the ratio of private investment to GDP to around 19% in 2020.

The July update to the national accounts resulted in a significant downward revision to investment data for 2017. The annual growth of private investment was almost halved. Private investment increased in 2017 by only 4.6% – not by 8.1%, as was still anticipated in March. Contrary to previous data, R&D expenditure declined



by more than 2%. Total investment growth was also clearly below the preliminary data of 5.8% and turned out to be 4%.

Construction investment is anticipated to decrease in the next few years because housing production has risen to an exceptionally high level. Many commercial building projects are also nearing completion and no corresponding growth is currently in sight. The number of building permits granted dropped in January–May by more than 10% year on year. Investment in housing construction will still increase at a good rate this year as household housing demand is supported by the good employment trend and low interest rates. Over the next two years, the number of new housing starts will fall by a few thousand per year. There is major regional variation in housing construction investment. Housing construction will remain at a high level in the Helsinki Metropolitan Area.



Due to long construction times, the decline in the starts of facility, storage, hospital and business premises projects will not be visible until next year. On the other hand, the outlook for 2020 is already better due to several planned major projects. The probability of these major projects being implemented has risen because a number of the projects have already been granted, for example, environmental and building permits and one new major project plan has now also been announced.

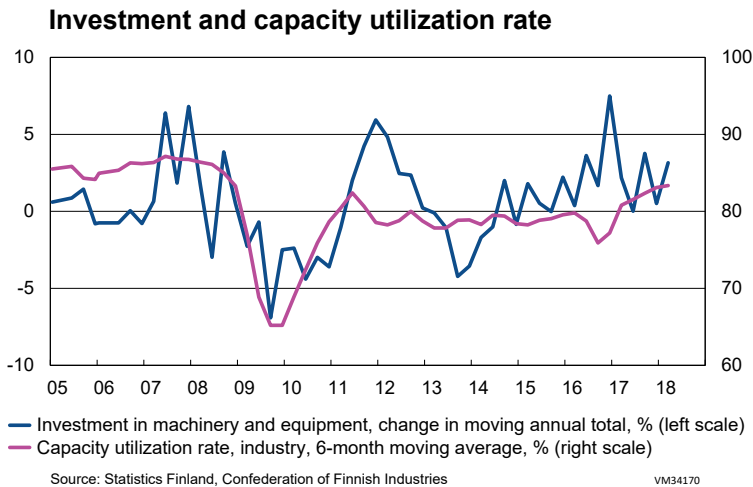
The rate of repair investment is forecast to remain quite stable and increase at an annual rate of around 2% during the outlook period. Repair construction in housing is expected to be brisker than in non-residential buildings.

Turnover figures reported by the civil engineering sector have been clearly weaker than in previous years. Civil engineering investment growth is projected to average just under 2% over the outlook period. Only around one third of structures and land improvements constitute private-sector investment.

The investment survey of the Confederation of Finnish Industries (EK) forecasts a decline of more than 8% in fixed industry investment this year. The greatest decline would be seen in the forest and chemical industries but, in the forest industry in particular, the change is expected to be temporary due to the several major projects planned within the industry.

Investment in machinery, equipment and transport equipment is expected to continue to grow because economic growth is good and there is some shortage of production capacity. The service industries will account for more than half of investment in machinery, equipment and transport equipment. In the coming years, the major projects planned may increase machinery and equipment investment significantly.

Employment growth is anticipated to speed up investment also in technology and training. Research and development investment is forecast to grow by a couple of per cent this year, whereas its annual growth rate is anticipated to be around 5% in 2019 and 2020.



**Table 9. Fixed investment by type of capital asset**

	2017	2015	2016	2017	2018**	2019**	2020**
	share, %	change in volume, %					
Buildings	48.6	2.0	10.0	6.2	5.5	-1.1	-0.6
Residential buildings	29.1	2.0	10.5	5.9	7.1	-0.8	-2.7
Non-residential buildings	19.5	2.1	9.1	6.6	3.2	-1.5	2.8
Civil engineering construction	9.6	-0.8	10.2	0.2	2.3	1.8	1.5
Machinery and equipment	23.8	4.6	13.7	6.6	3.5	4.2	4.8
R&D-investments <sup>1</sup>	18.0	-5.2	-1.0	-2.3	2.1	5.3	5.3
<b>Total</b>	<b>100.0</b>	<b>0.7</b>	<b>8.5</b>	<b>4.0</b>	<b>4.1</b>	<b>1.5</b>	<b>1.9</b>
Private	81.6	2.2	8.7	4.6	4.6	2.9	2.4
Public	18.4	-5.2	7.9	1.8	1.9	-4.4	-0.1
		%					
Investment to GDP ratio (at current prices)							
Fixed investment		20.9	21.7	22.1	22.6	22.5	22.6
Private		16.9	17.6	18.1	18.5	18.7	18.8
Public		4.0	4.1	4.1	4.1	3.8	3.8

<sup>1</sup>Includes cultivated assets and intellectual property products

### 1.3.4 Public investment

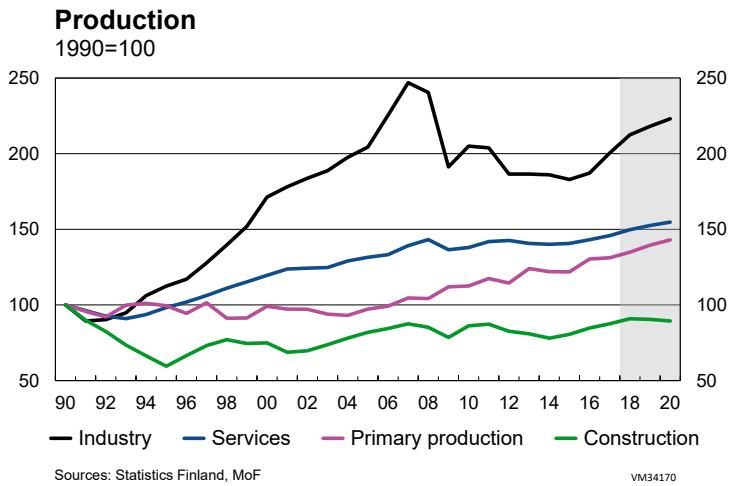
Local government investment accounts for more than half and central government investment for less than half of public investment. Social security funds represent a very small share of the total. Public investment grew both nominally and in real terms in 2017. Growth in central government investment expenditure slowed clearly year on year, but growth in local government investment continued at a reasonably rapid rate. There has typically been a great deal of variation in public investment expenditure, and this is anticipated to be the case also in the coming years. Additional investment targeted at 2018, particularly the Government's key projects, will add to central government investment expenditure. Their ending will reduce public investment expenditure in 2019. The level of local government investment will be maintained by brisk hospital construction over the next few years.

## 1.4 Domestic production

### 1.4.1 Total output

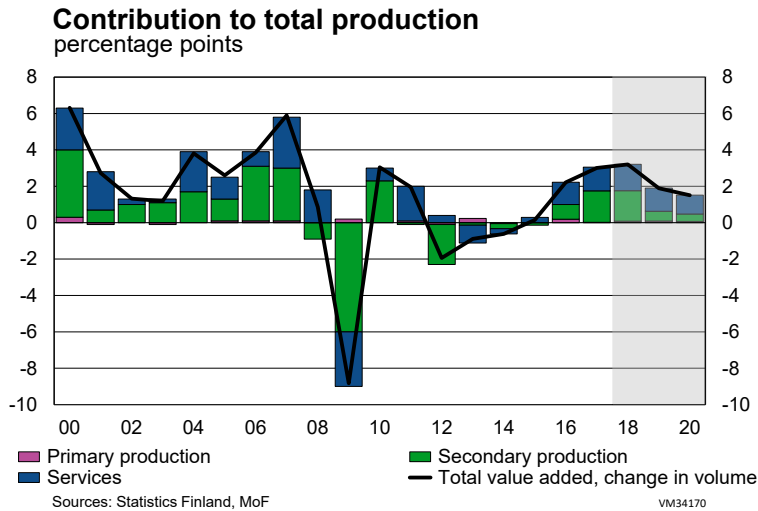
#### Economic growth slowing from peak rates

Output growth accelerated in the early part of the year. Gross value added for the economy was 2½% greater in the first half of the year than a year earlier. However, the level of gross value added is still around 1% lower than before the financial crisis as industrial output still remains at a clearly lower level. Production in all the main industries was greater in the early part of this year than a year earlier. The greatest increase was seen in the output of secondary production, that is, manufacturing industry and construction. Value added in the forest and chemical industry, information services and financial activity decreased year on year.

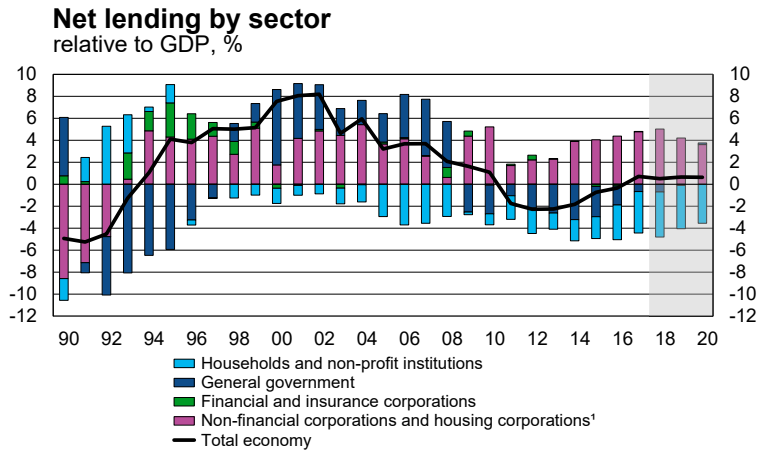


The current year is shaping up to be the best year in the current economic cycle as the upward trend is projected to continue this year. Manufacturing enterprises' outlook for output is positive, construction of major building investment projects is still continuing and sales expectations in service branches have improved. On the other hand, there are also signs of growth constraints as the value of new orders shrank in January–June by 4.5% year on year. In addition, many enterprises have a shortage of skilled labour and some also of capacity. According to Confederation of Finnish Industries (EK) surveys, obstacles to growth are more common in many private business sectors than in late 2017. As regards agriculture, this is the second consecutive year with challenging weather conditions limiting agricultural output.





Despite obstacles to output growth, economic activity will remain strong across the board. Growth is being driven by a large order book illustrating strong international demand in manufacturing, progress made in numerous private and public construction projects already started, and the economic restructuring which can be seen in the strong demand for private services. Although the period of fastest growth seen in early 2018 appears to be over, the business tendency surveys indicate that the positive trend will still continue, at least for the next six months. In addition, the outlook’s background assumptions concerning the continuation of the growth of world trade and the global economy support the growth prospects of export-oriented industrial production and therefore, indirectly, business services. The growth in imports of Finland’s most important trading area, Europe, is good news for Finnish industries manufacturing investment and intermediate products. Due to broad-based growth and strong activity, gross value added for the economy will grow by just over 3% this year. The growth rate will slow in 2019 and 2020, but total output will still increase by just under 2% per year during those years.

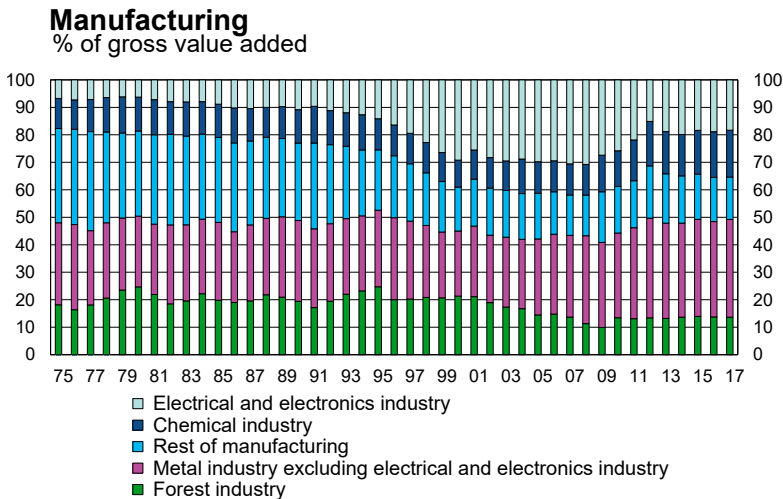


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## 1.4.2 Secondary production

### Manufacturing output driving growth

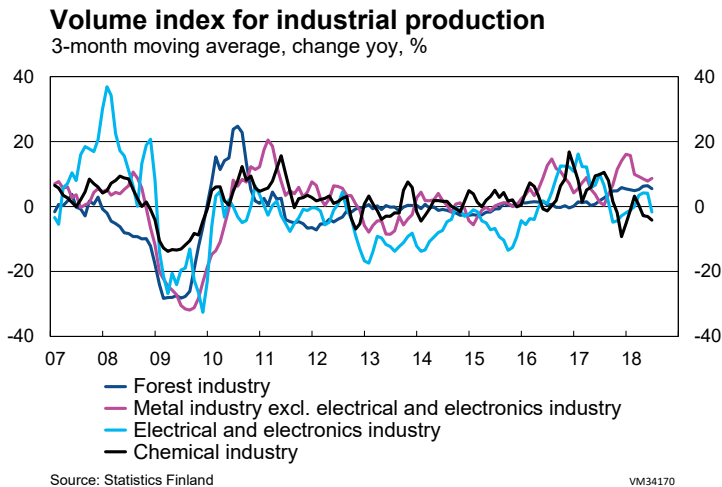
The upward trend in manufacturing output continued in the early part of the year and value added in the industry increased by almost 4% year on year. The upswing was broad-based (as output was greater than a year earlier in all main industries). Output growth in the technology industry in particular accelerated from last year due to increased demand. Output in the forest industry was restricted slightly by headwinds faced in timber logging and in the chemical industry by a decline in new orders.



Source: Statistics Finland

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Most of Finland's industrial production comprises raw materials and investment goods for export, the demand for which has improved as the global economy and world trade have picked up and capacity utilisation has risen on the back of economic growth. In addition, the unit labour cost competitiveness of Finnish businesses improved last year as the nominal cost of labour per unit of output in the economy as a whole decreased by 2%. In the early part of 2018, labour costs have taken an upturn. Productivity growth has been modest while the rise in earnings levels has accelerated. Order books of industrial enterprises are very strong, particularly in the forest and construction industries, and will guarantee continued production on average for months ahead.



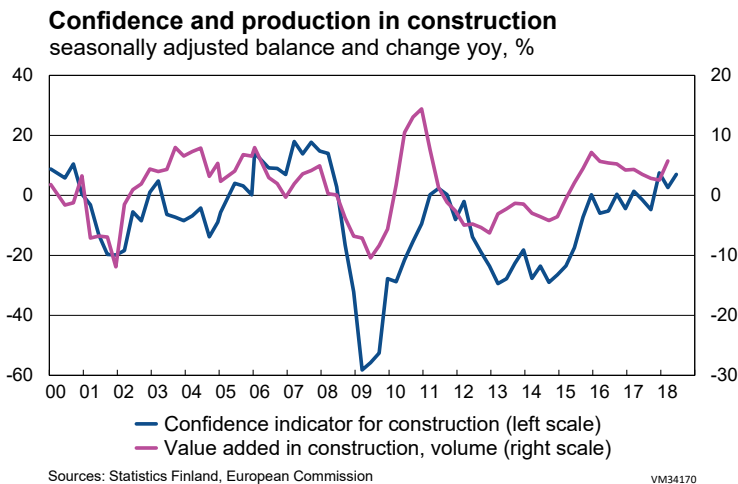
Business tendency surveys show the best prospects for growth in the next few months are in the technology, construction product and forest industries, while the lowest output projections are reported by the textile, clothing and printing industries. In the forest industry, output is being driven up by increased demand for pulp, paperboard and sawn timber. Forest industry growth is also being buoyed by capacity increases. Overall, industrial output will increase by around 6% this year due to the positive economic outlook and strong order books.

In the years ahead, export demand will increase as world trade grows, albeit at a slower rate. Imports are expected to increase in 2019 and 2020 in the European market in particular, which is important for Finnish enterprises. Higher production capacity

and efforts made by enterprises to improve the competitiveness of their products will boost industrial output in the years ahead. The growth of value added in manufacturing will be around 2½% in 2019 and 2020. Despite this growth, the volume of industrial output will still remain one tenth lower in 2020 than in the peak year of 2007.

### Growth period ending in new construction

The growth of value added in construction accelerated to just over 5% in early 2018. Growth was buoyed by strong building construction, whereas civil engineering was in negative growth territory. Building construction was strong in housing, commercial and agricultural projects in particular. This was due to increased housing demand in growth centres and enterprises’ expansion and replacement projects. Growth is, however, unevenly distributed across the regions, because levels of new construction are higher in growth centres than outside them. The need for repair construction is high, particularly as regards residential and office buildings.



Surveys show that the economic outlook of construction no longer improved in the summer as strong output growth has already continued for more than three years. In addition, the number of building permits granted took a downturn in the early part of the year. Many major construction projects are slated for completion in the near future. As some of these have been non-recurring, they will therefore not be immediately followed by similar new projects. Output level is high and the sector is running

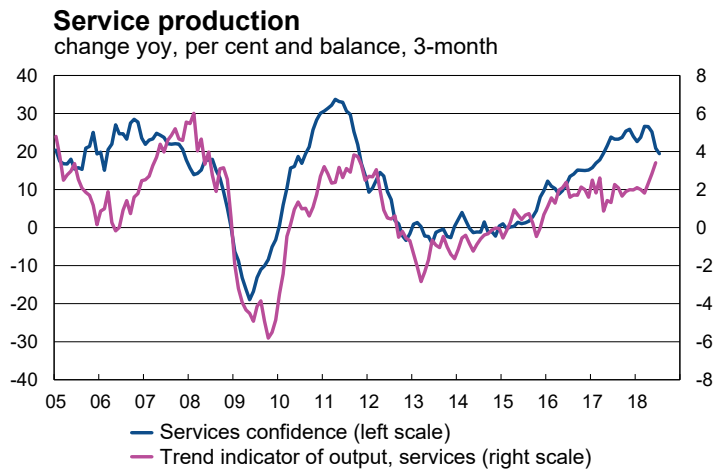
at almost full capacity. In addition, construction is the main industry suffering from the greatest shortage of skilled labour. Buoyed by construction projects currently underway, construction output will still increase by 4% this year, but construction is no longer the fastest-growing industry in the economy.

Construction will remain buoyant in growth centres in both 2019 and 2020 but, on the basis of building permits granted, the number of new starts will take a downturn. In the 2019–2020 period, the focus will be on a few major new construction projects, so the annual rate of increase in construction value added will decline moderately in the two years ahead.

### 1.4.3 Services

#### Services will grow driven by enterprise demand

Service production has grown continuously for three years and the growth rate still remained at a couple of per cent in the early part of the year. Value added growth in services was brisk in private and only slight in public services. The strongest growth rate was seen in business services (excluding financial and insurance activities). Consumer service sales also increased as purchasing power improved.



The cyclical position of private services is strong. Sales are on the increase and are generally expected to continue to grow in the next few months. Therefore there are fewer service enterprises facing a lack of demand than earlier. Instead, a shortage of skilled labour is a greater obstacle to service industry growth, particularly in information and communication services and real estate services. Nevertheless, enterprises in these sectors expect to see brisker sales growth during the rest of the year. The increase in value added in services this year will be just over 2½% year on year.

Looking ahead, service production will be supported by demand in other industries and by positive household earnings development, providing continued good conditions for service-sector growth. International demand will increase service production serving foreign demand and, through intermediate products, also domestic demand. Limits to growth are, however, emerging more clearly and a slowing cycle will be entered after a long period of growth. Next year and the year after will see only a slight slowdown in service production growth from this year, with the coming annual growth rate averaging just under 2%.

**Table 10. Production by industry**

	2017	2015	2016	2017	2018**	2019**	2020**	Average
	share, % <sup>1)</sup>	change in volume, %						2017/2007
Industry	21.1	-1.7	2.3	7.1	6.1	2.6	2.3	-2.1
Construction	7.1	3.3	5.1	3.3	4.0	-0.5	-1.1	-0.0
Agriculture and forestry	2.7	-0.1	7.0	0.6	2.9	3.5	2.5	2.3
Industry and construction	28.2	-0.5	3.0	6.1	5.5	1.9	1.5	-1.6
Services	69.1	0.4	1.7	1.9	2.6	1.8	1.5	0.5
<b>Total production at basic prices</b>	<b>100.0</b>	<b>0.1</b>	<b>2.2</b>	<b>3.0</b>	<b>3.2</b>	<b>1.9</b>	<b>1.5</b>	<b>-0.2</b>
GDP at market prices		0.1	2.5	2.8	3.0	1.7	1.6	-0.0
Labour productivity in the whole economy		0.2	2.0	2.3	1.2	1.1	1.0	0.1

1) Share of total value added at current prices.

## 1.5 Labour force

### Employment higher than ever before

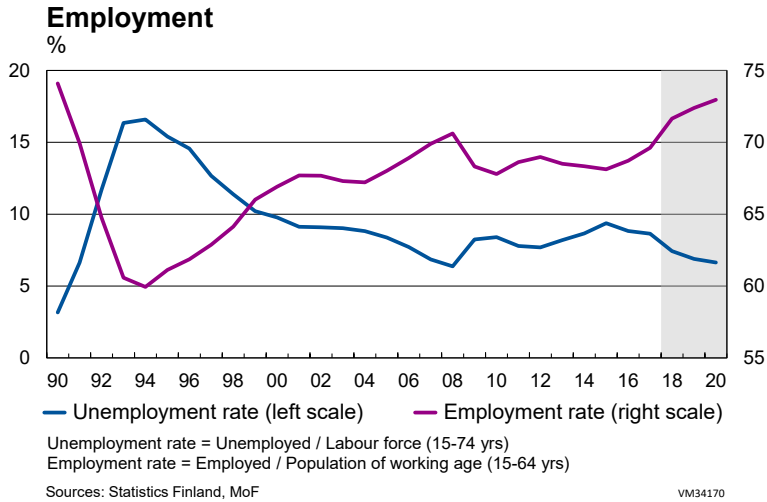
In the early part of 2018, the employment has stepped up even faster than could be assumed on the basis of economic activity. According to the Labour Force Survey, from January to June, the number of employed persons increased by 2.9% year on year. In June, the trend of employment exceeded its previous record level, that is, the figure seen at the cyclical peak in 2008. The trend of the employment rate rose to 71.8% in June.

The number of hours worked increased slightly more slowly in the early part of the year than the number of employed persons, indicating an increase in the relative share of part-time and fixed-term contractual employment relationships. The potential increasing impact of the so-called activation model on short-term employment would, however, appear to be low as, according to the Labour Force Survey, the majority of the increase in employment seen in the early part of the year took place in full-time contracts.

The demand for labour has continued to improve. New job vacancies reported to Employment and Economic Development Offices (TE Offices) in the early part of the year increased clearly year on year. According to the European Commission's confidence indicators, Finnish enterprises' employment expectations were still at peak levels in June. However, measured by the job vacancy rate, that is, the number of job vacancies as a percentage of all occupied and vacant jobs, Finnish demand for labour is only at the medium level among EU Member States.

The rate of employment growth is expected to slow slightly in the autumn, whereby the number of employed persons will increase by 2.6% this year compared with a year earlier. The employment rate is predicted to rise to 71.7%.

Since the beginning of the year, unemployment has fallen rapidly according to both the Labour Force Survey of Statistics Finland and the employment service statistics compiled by the Ministry of Economic Affairs and Employment. The unemployment rate trend decreased to 7.2% in June. The number of unemployed persons has fallen in all regions and across all age groups in the early part of the year. Driven by the rapid rise in employment, the number of unemployed persons will decrease clearly more this year than in 2017. The projected unemployment rate for the whole of 2018 is 7.4%.



Despite the slowing of economic growth, the moderate rise in real wages and salaries will maintain labour demand in the 2019–2020 period. Due to the rather large number of unemployed and disguised unemployed persons and measures increasing the supply of labour, growth in employment and the economy will not yet be restricted by labour supply in the Finnish economy on the whole. The tightness of the labour market, that is, the ratio of job vacancies to the number of unemployed persons, has climbed to the 2008 level but is still rather low in Finland compared with Sweden, Germany or the United States.

The number of employed persons will increase by 0.9% in 2019 and 0.6% in 2020. The employment rate will rise to 72.4% in 2019 and further to 73% in 2020.

The numbers of disguised and long-term unemployed are still clearly higher than during the previous cyclical peak in 2008. In recent months, however, the numbers of persons in the “hard core” of these unemployed groups have decreased clearly, creating room for a drop in the unemployment rate. The activation of the disguised unemployed to become jobseekers no longer hampers the reduction in unemployment to the same extent as in 2017, while on the other hand the slowing of economic growth will slow the reduction in the unemployment rate towards the end of the outlook period. The unemployment rate will fall to 6.9% in 2019 and further to 6.6% in 2020.

Although the supply of labour in the Finnish economy on the whole is sufficient, sectoral labour shortages can already be noticed in certain occupational groups. Accord-



ing to the Business Tendency Survey of the Confederation of Finnish Industries (EK) and the Employment Outlook by Occupation published by the Ministry of Economic Affairs and Employment, there is a particular shortage of construction and real estate service professionals as well as information, health and social services experts.

Elimination of sectoral labour shortages can be promoted by investing in competencies, education and training, improving incentives for employment and increasing labour immigration. Ultimately, sectoral labour shortages will lead to higher pay levels in the affected industries.

**Table 11. Labour market**

	2015	2016	2017	2018**	2019**	2020**
	<b>annual average. 1.000 persons</b>					
Population of working age (15-74 yrs)	4102	4109	4114	4127	4138	4140
change	6	7	5	14	11	2
Population of working age (15-64 yrs)	3476	3463	3451	3440	3436	3429
change	-15	-13	-12	-11	-4	-7
Employed (15-74 yrs)	2437	2448	2473	2538	2561	2575
of which 15-64 yrs	2368	2379	2403	2465	2487	2502
Unemployed (15-74 yrs)	252	237	234	204	190	183
	<b>%</b>					
Employment rate (15-64 yrs)	68.1	68.7	69.6	71.7	72.4	73.0
Unemployment rate (15-74 yrs)	9.4	8.8	8.6	7.4	6.9	6.6
	<b>1.000 persons per annum</b>					
Immigration, net	12	16	17	17	17	17

## 1.6 Incomes, costs and prices

### 1.6.1 Wages and salaries

In 2017, earnings development was predominantly determined by the Competitive-ness Pact concluded by the social partners. According to preliminary data, the index of wage and salary earnings increased by 0.2%. In the economy as a whole, the sum of wages and salaries increased by 2.2% in 2017.

Negotiations on pay rises for 2018 and 2019 took place industry-specifically. Negotiated pay rises mainly follow the line set by the technology industry. Nominal earnings are estimated to rise by 1.8% in 2018 and 2.6% in 2019. Wage drifts are anticipated to remain slightly below average due to company-level agreements and company-specific items.

The total sum of wages and salaries in the economy is predicted to grow by 4.2% in 2018 and by 3.5% in 2019.

In 2020, nominal earnings are projected to increase by 3.0% and the sum of wages and salaries by 3.6%. Rises in earnings will be boosted by the expiry of public-sector holiday bonus cuts.

In the years ahead, the rise in the level of earnings will continue to be slightly slower than the average rise seen in the 2000s, which is in line with the rather high rate of unemployment.

**Table 12. Disposable income**

	2017	2015	2016	2017	2018**	2019**	2020**	Average
	share, %	change, %						2017/2007
Compensation of employees	57.3	1.0	1.7	0.7	3.4	2.8	3.8	2.0
Wages and salaries	47.2	1.0	1.4	2.2	4.2	3.5	3.6	2.2
Employers' contributions to social security schemes	10.3	1.4	2.5	-5.5	-0.3	0.3	4.4	1.0
Property and entrepreneurial income, net	28.1	7.2	8.9	11.7	6.6	5.1	4.0	0.9
Taxes on production and imports minus subsidies	15.7	-0.1	5.9	1.5	3.3	2.9	2.1	3.1
National income	100.0	2.3	4.1	3.7	4.3	3.6	3.6	1.8
Disposable income		2.4	4.2	4.0	4.3	3.6	3.6	1.8
Gross national income, EUR bn		211.5	219.2	226.5	235.8	244.0	252.5	

**Table 13. Index of wage and salary earnings and labour costs per unit of output**

	2015	2016	2017	2018**	2019**	2020**	Average
	change, %						2017/2007
Index of negotiated wage rates	0.6	0.6	-0.3	1.2	2.0	2.3	1.4
Wage drift, etc.	0.8	0.3	0.5	0.6	0.6	0.7	0.5
<b>Index of wage and salary earnings</b>	<b>1.4</b>	<b>0.9</b>	<b>0.2</b>	<b>1.8</b>	<b>2.6</b>	<b>3.0</b>	<b>2.4</b>
Real earnings <sup>1</sup>	1.6	0.5	-0.5	0.7	1.1	1.3	0.9
Average earnings <sup>2</sup>	1.4	0.7	0.2	2.2	2.7	3.1	2.3
Labour costs per unit of output whole economy <sup>3</sup>	0.9	-0.6	-2.2	0.1	0.9	2.2	2.2

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.

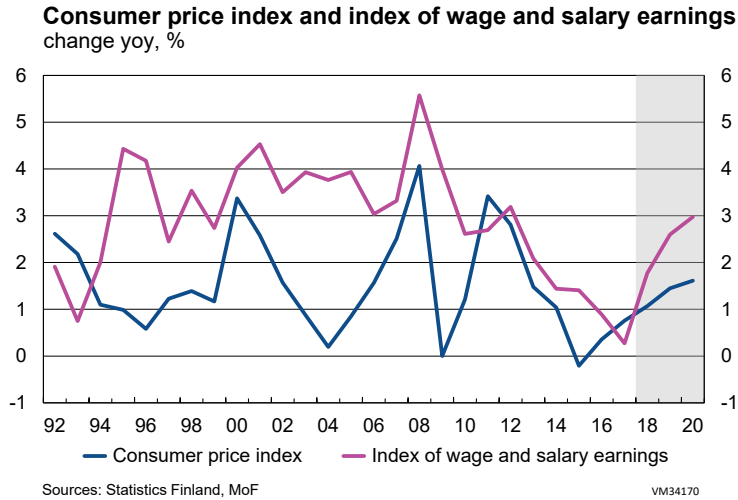
3) Compensation of employees divided by gross value added in volume at basic prices.

## 1.6.2 Consumer prices

In 2017, consumer prices rose by an average of 0.7%, mainly due to increases in service and energy prices. Inflation picked up in the early part of 2018 and the annual change in the national Consumer Price Index was already as high as 1.2% in June. Price increases have been more broad-based than the year before and have also been affected by increases in indirect taxation.

The projected inflation for 2018 is 1.1% measured by the national Consumer Price Index. Inflation will be pushed up this year mainly by increases in service, food and energy prices. Goods prices have continued to fall in Finland during the current year and their impact on inflation will again be negative this year. In the current year, changes in indirect taxation will drive inflation by an estimated 0.3–0.4 percentage points, with hikes in excise duties on alcohol and tobacco products in particular having an impact here.

The price of crude oil has risen since mid-2017, and in the current year energy prices are projected to climb compared with a year earlier. The strengthening of the US dollar also contributes to the impact of oil price hikes. However, the price inflation of energy is projected to slow towards the end of 2018 owing to base effects.



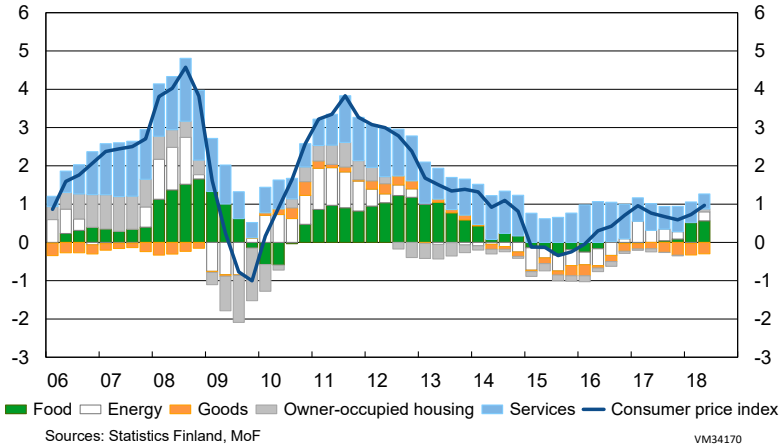
With the earnings level rising, service prices are anticipated to gradually rise. However, the increase will still remain moderate this year – service prices are forecast to only rise by around 1% this year, which is clearly slower than last year. This is due to factors including lowered daycare charges and slowing rises in rents.

Food prices are anticipated to increase in the current year. In the early part of the year, the world market prices of food were rising, but in July the FAO Food Price Index fell clearly. In Finland, the dry summer is putting upward pressure on food prices. Food prices are anticipated to continue to rise also in the next years of the outlook period, supported by pay rises and hikes in energy prices.

Inflationary pressures as a whole are anticipated to increase slightly during the following years of the outlook period because the economy has fewer available resources as the output gap is turning positive. The national Consumer Price Index is forecast to increase by 1.4% in 2019 and 1.6% in 2020. The increase in service prices is projected to accelerate gradually during the outlook period as the pay rises are reflected in prices. During the outlook period, oil prices are projected to rise and the US dollar to strengthen moderately, contributing towards inflation in 2019 and 2020.

### Consumer price index

percentage change and contribution to change



The pick-up in inflation has also been a pan-European phenomenon. Inflation in the euro area accelerated to 2.1% in July 2018, and this has also been reflected in inflation expectations. The results of the European Central Bank (ECB) Survey of Professional Forecasters (SPF) show inflation expectations of 1.7% for each of 2018, 2019 and 2020. In Finland, inflation has been below the average for the euro area this year, particularly due to the impact of the price development of goods. Inflation is, however, anticipated to rise closer to the average of the euro area towards the end of the outlook period.

**Table 14. Price indices**

	2015	2016	2017	2018**	2019**	2020**	Average
	change, %						2017/2007
Export prices <sup>1</sup>	-0.9	-2.1	3.1	2.4	1.9	1.5	0.2
Import prices <sup>1</sup>	-4.3	-2.5	3.5	3.0	2.4	2.1	0.2
Consumer price index	-0.2	0.4	0.7	1.1	1.4	1.6	1.5
Harmonised index of consumer prices	-0.2	0.4	0.8	1.1	1.4	1.6	1.8
Basic price index for domestic supply, including taxes	-2.7	-1.2	5.2	4.8	3.1	2.3	1.5
Building cost index	0.5	0.5	0.3	2.4	2.4	2.2	1.3

<sup>1</sup> As calculated in the National Accounts

## 2 Public finances

### 2.1 General government finances

Finland's favourable economic cycle has a positive effect on general government finances. Last year, the deficit decreased further year on year. As the good economic cycle continues for the next few years, the public finances are balanced. The consolidation measures decided by the Government will also contribute towards the reduction of the deficit. When entering the next decade, economic growth will slow and the strengthening of the general government budgetary balance will come to a halt.

The general government debt to GDP ratio will fall below the 60% limit already during the current year. Nominally, however, general government debt will continue to rise. Despite the economic upswing, the public debt ratio has decreased very slowly.

The positive economic cycle conceals the structural problems of general government finances. The population ageing increases health care and long-term care expenditure also in the future. In the early 2020s, general government finances need to show a clear surplus in order to reach a more sustainable foundation required to meet the pressure caused by population ageing.

Central government is the general government<sup>1</sup> sector with the largest deficit. However, the deficit will contract over the outlook period due to tax revenue growth and

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<sup>1</sup> 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 pension insurance, and other social security funds. From 2021, the structure of general government will be overhauled in a reform that will see the introduction of a regional government system based on counties. Statistics Finland will decide on the sector classification of regional government units in national accounts at a later date. For the purposes of the Ministry of Finance autumn forecast for general government finances and the medium-term outlook, county government has been singled out as a separate sector.

moderate expenditure growth. The financial position of local government improved last year by exceptionally good tax revenue growth, some of which was one-off as regards its impacts. The local government deficit will grow further in the current year but decrease gradually over the outlook period.

In 2021, some of the duties of local government will be transferred to the counties due to the health, social services and regional government reform. Initially, county government will be in deficit. The county government deficit will be largely due to the large number of facilities investment decisions already made earlier by hospital districts. These investments will be transferred to the Counties' Service Centre for Facilities and Real Estate Management.

The earnings-related pension funds will be clearly in surplus, with their surplus remaining just under 1% over the outlook period. On the one hand, pension expenditure will grow rapidly, while on the other hand the favourable economic development will increase income from pension contributions, and higher interest rates will increase property income. Other social security funds will post a slight surplus. The fall in unemployment expenditure is projected to continue further, and it is assumed that unemployment insurance contributions will be reduced during the outlook period. The contribution reduction will cut the surplus of social security funds, bringing it closer towards balance.

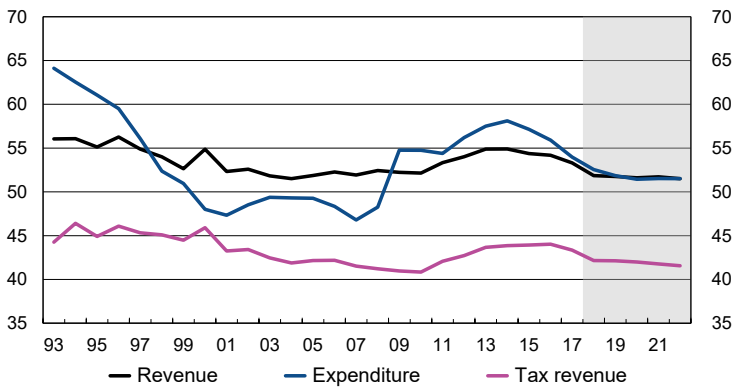
The expenditure ratio, that is, the ratio of expenditure to GDP, will fall. The expenditure ratio will be reduced by the consolidation measures in accordance with the Government Programme and by falling unemployment expenditure. The tax ratio, that is, the ratio of taxes and tax-like payments to GDP, has fallen due to tax cuts and the Competitiveness Pact. The tax ratio will remain more or less unchanged in the next few years.

Finland complies with the deficit criterion and the public debt criterion of the Treaty on the Functioning of the European Union. Finland is also assessed to be in compliance with the obligations under the preventive arm of the Stability and Growth Pact (SGP). Compliance with EU rules will be described in more detail in the 2019 Draft Budgetary Plan published in October.

Risks related to general government finances are closely linked to general economic development. If economic growth turns out to be slower than projected, the in-

crease in tax revenue would be lower than projected and expenditure such as cyclical unemployment expenditure would grow faster than projected. The tax revenue impacts of economic development deviating from forecasts depend on the factors on which the deviation is based. The larger the extent to which a forecast deviation relating to general economic development originates from domestic demand compared with changes reflecting external demand, the greater the impacts will be. Another risk relates to the considerable increase in general government's contingent liabilities since the 2008 financial crisis. A major triggering of liabilities might expose general government to difficulties as the level of public debt is already high. General government liabilities are described in more detail in the box on page 63.

**General government revenue, tax revenue and expenditure**  
relative to GDP, %



Sources: Statistics Finland, MoF

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**Table 15. General government finance<sup>1)</sup>**

	2015	2016	2017	2018**	2019**	2020**
	EUR billion					
Current taxes	34.8	35.6	37.2	37.4	39.6	40.7
Taxes on production and imports	29.7	31.1	31.5	32.6	33.4	34.0
Social security contributions	27.0	28.0	27.4	28.0	28.4	30.0
Taxes and contributions, total <sup>2)</sup>	92.1	95.2	97.0	98.8	102.1	105.4
Other revenue <sup>3)</sup>	22.5	22.5	23.2	23.4	24.1	24.8
of which interest receipts	2.1	1.9	1.8	1.8	2.0	2.2
<b>Total revenue</b>	<b>114.0</b>	<b>117.1</b>	<b>119.3</b>	<b>121.5</b>	<b>125.5</b>	<b>129.5</b>
Consumption expenditure	51.1	51.6	51.2	52.5	54.1	56.0
Subsidies	2.8	2.7	2.7	2.7	2.7	2.7
Social security benefits and allowances	41.6	42.2	42.7	43.3	44.2	45.4
Other current transfers	5.8	5.7	5.3	5.4	5.6	5.7
Subsidies and current transfers, total	50.2	50.6	50.7	51.4	52.5	53.8
Capital expenditure <sup>4)</sup>	8.9	9.2	9.4	9.9	9.7	9.8
Other expenditure	9.5	9.4	9.5	9.3	9.5	9.6
of which interest expenses	2.4	2.3	2.2	2.0	2.0	2.1
<b>Total expenditure</b>	<b>119.8</b>	<b>120.8</b>	<b>120.8</b>	<b>123.1</b>	<b>125.7</b>	<b>129.1</b>
<b>Net lending (+) / net borrowing (-)</b>	<b>-5.8</b>	<b>-3.7</b>	<b>-1.5</b>	<b>-1.6</b>	<b>-0.2</b>	<b>0.4</b>
Central government	-6.3	-5.7	-4.0	-3.5	-1.8	-1.8
Local government	-1.4	-0.9	-0.3	-1.1	-0.8	-0.7
Employment pension schemes	2.7	2.4	2.0	2.1	2.1	2.3
Other social security funds	-0.8	0.5	0.8	0.9	0.3	0.6
Primary balance <sup>5)</sup>	-5.4	-3.3	-1.0	-1.4	-0.1	0.4

1) As calculated in the National Accounts

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 16. Main economic indicators in general government**

	2015	2016	2017	2018**	2019**	2020**
	relative to GDP, %					
Taxes and social security contributions	43.9	44.0	43.3	42.2	42.1	42.0
General government expenditure <sup>1</sup>	57.1	55.9	54.0	52.6	51.9	51.4
Net lending	-2.8	-1.7	-0.7	-0.7	-0.1	0.2
Central government	-3.0	-2.7	-1.8	-1.5	-0.7	-0.7
Local government	-0.7	-0.4	-0.1	-0.5	-0.3	-0.3
Employment pension institutions	1.3	1.1	0.9	0.9	0.9	0.9
Other social security funds	-0.4	0.2	0.3	0.4	0.1	0.2
Primary balance <sup>2</sup>	-2.6	-1.5	-0.4	-0.6	-0.0	0.1
General government debt	63.5	62.9	61.3	59.9	59.1	57.9
Central government debt	47.6	47.4	47.3	46.0	45.3	44.3
General government employment, 1000 person	619	614	618	616	613	611
Central government	133	131	130	128	127	126
Local government	475	472	476	476	474	474
Social security funds	11	11	11	11	11	11

1) EU-harmonized definition

2) Net lending before net interest expenses

**Table 17. Fiscal balance and debt ratios in some EU economies**

	2017	2018**	2019**	2017	2018**	2019**
	Fiscal balance			Debt		
	relative to GDP, %					
*Finland	-0.7	-0.7	-0.1	61.3	59.9	59.1
Finland	-0.6	-0.8	-0.2	61.4	60.4	59.6
United Kingdom	-1.9	-1.9	-1.6	87.7	86.3	85.3
Sweden	1.3	0.8	0.9	40.6	38.0	35.5
Denmark	1.0	-0.1	-0.0	36.4	33.6	32.3
Ireland	-0.3	-0.2	-0.2	68.0	65.6	63.2
Spain	-3.1	-2.6	-1.9	98.3	97.6	95.9
The Netherlands	1.1	0.7	0.9	56.8	53.5	50.1
Luxembourg	1.5	0.9	0.7	23.0	22.6	22.5
Portugal	-3.0	-0.9	-0.6	125.7	122.5	119.5
Austria	-0.7	-0.5	-0.2	78.4	74.8	71.7
Germany	1.3	1.2	1.4	64.1	60.2	56.3
France	-2.6	-2.3	-2.8	97.0	96.4	96.0
Belgium	-1.0	-1.1	-1.3	103.1	101.6	100.2
Italy	-2.3	-1.7	-1.7	131.8	130.7	129.7
Greece	0.8	0.4	0.2	178.6	177.8	170.4

Source: EU Commission Spring Forecast 2018; \*Finland: Ministry of Finance, Autumn 2018

## 2.1.1 Estimates of fiscal policy impact

Examined on the basis of individual revenue and expenditure measures, fiscal policy at general government level is slightly tighter in 2018 than in 2017. The Government has decided on fiscal adjustment measures at around EUR 700 million targeted at central government, including measures such as index freezes. In addition, fiscal policy will tighten as a result of municipalities' own adjustment measures. On the other hand, the tax cuts decided by the Government will make fiscal policy lighter.

The tax ratio is anticipated to fall to around 42.2% of GDP in 2018 and is anticipated to remain at that level also in 2019 and 2020. The expenditure ratio began to edge down in 2015, and the same trend is expected to continue in the 2018–2020 period due to savings measures and reduced cyclical expenditure.

The fiscal stance can also be examined on the basis of changes in the structural balance assessed using the EU's common methodology.<sup>1</sup> An examination based on changes in the structural balance does not necessarily give exactly the same picture as an examination focused on individual revenue and expenditure measures. For example, increasing age-related expenditure has the effect of widening the structural deficit over the outlook period, even in the absence of any decisions to increase expenditure.

The structural balance is estimated to deteriorate slightly in 2018, whereby, on the basis of this indicator, fiscal policy can be regarded as having become slightly more expansionary. The increase in the structural deficit will be affected by the rapid closing of the output gap, the increase in age-related expenditure and the ending of the temporary and exceptionally high tax revenues of 2017. In 2019, on the other hand, the structural balance is anticipated to contract slightly and remain more or less unchanged in the subsequent period.<sup>2</sup>

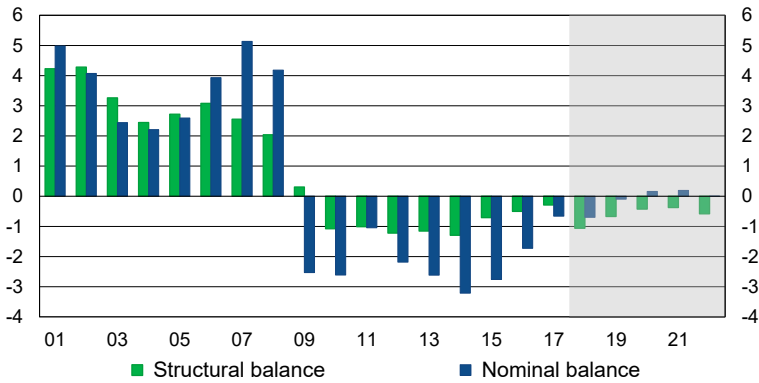
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1 Structural balance is calculated by removing the cyclical effect and one-off measures from the general government balance. The remainder describes the effect of the policy pursued and other than cyclical factors on the balance. Changes in the structural balance therefore 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.

2 The following one-off measures have been taken into account in the calculation of the structural deficit: Firstly, the transfer of the levying of value-added tax on imports from Finnish Customs to the Finnish Tax Administration will result in a one-off reduction of around EUR 150 million in tax revenue in 2018. Secondly, the Valmis IT programme will result in the payment of back taxes being brought forward, which will give rise to a one-off increase of around EUR 230 million in 2019 tax revenue.

**General government nominal and structural balance**

relative to GDP, %



Based on the European Commission's production function approach

Sources: Statistics Finland, MoF

VM34098

**EFFECT OF POTENTIAL OUTPUT MEASUREMENT METHOD ON CHANGES IN STRUCTURAL BALANCE<sup>1</sup>**

One way of examining the fiscal stance is on the basis of changes in the structural budget balance. The structural budget balance is calculated by adjusting the nominal balance for the business cycle and one-off and temporary items. The aim is to examine the effect of the policy pursued and other than cyclical factors on the general government budget position. If the structural budget balance deteriorates, fiscal policy is regarded as becoming more expansionary, while a strengthening of the structural budget balance is interpreted as fiscal tightening.

The effect of the business cycle on the public-sector balance is assessed on the basis of the output gap. The output gap tells how much the economy's output deviates from its potential level at a given point of time. Potential output, in turn, refers to the long-term growth trajectory of the economy or sustainable level of output consistent with stable inflation. A positive output gap implies that resources are being overutilised and there exist inflationary and wage growth pressures. A negative output gap, in turn, suggests that the economy is underutilising its resources relative to its potential.

Potential output and output gap are latent variables. Because their real level is unobservable, they have to be estimated. This means there are uncertainties involved in the estimates of potential output and the output gap. On one hand, uncertainty is created by the fact that the correct way of estimating potential output cannot be known for certain. On the other hand, uncertainty arises from the fact that estimates of

<sup>1</sup> The text is based on on-going work at the Ministry of Finance that looks into different methods of measuring potential output

potential output and output gap may change – particularly at sample end-points - as the time series underlying the estimates are extended and revised. Potential output and the output gap can be estimated using a variety of methods. The following provides examples of a few methods.

The Ministry of Finance uses the EU's common production function method for estimating potential output and the output gap. This method is based on the production function of the economy as a whole where, in accordance with economic theory, the economy's output consists of the contributions of capital, labour input and technological progress. Potential output corresponds to the value of the production function in a situation where the rates of labour and capital resource utilisation are normal (not over- or underutilised) and technological progress is at its the long-term trend (Álvarez and Gómez-Loscos, 2017). From the policy perspective, one of the strengths of the production function method is that it is quite reliable at sample end-points (Cotis et al., 2004). It also enables examining the factors underlying the changes in potential output (Havik et al., 2014), that is, how much capital, employment and technological progress, respectively, contribute to changes in potential output. The International Monetary Fund (IMF) and the Organisation for Economic Co-operation and Development (OECD) also use the production function method to estimate potential output and output gaps.

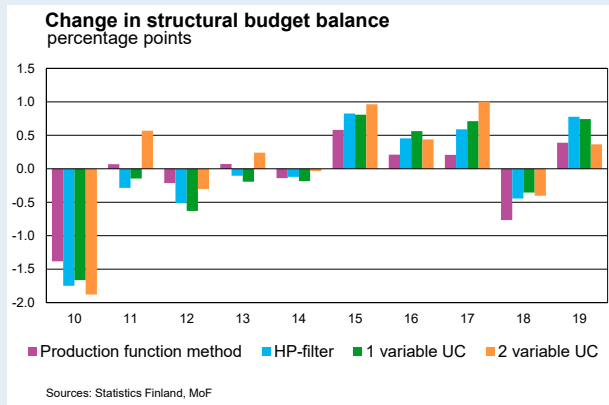
Potential output and output gap are also commonly estimated based on the GDP time series using statistical methods. In these methods, the long-term trend of GDP is interpreted as potential output and the cyclical component as the output gap. The Hodrick-Prescott filter (HP filter) is an example of a widely used statistical method for estimating potential output and the output gap. With the HP filter, the trend GDP is estimated by solving an optimisation problem that has two opposing aims: on one hand, the consistency of the trend with the actual GDP time series and, on the other hand, the smoothness of the trend. The advantages of the HP filter are its ease, simplicity and transparency (Álvarez and Gómez-Loscos, 2017). One of its deficiencies is significant end-point bias: the HP filter trend tends to follow actual GDP more closely at sample end-points.

Univariate unobserved components (UC) models present another example of statistical methods. In these models, GDP is considered to consist of a trend, a cyclical component and possibly also an irregular component. All three components are regarded as unobservable variables which are estimated based on the GDP time series. The unobserved components models can be specified in many ways by altering the assumptions concerning the determination of the cyclical and trend component.

There exist also multivariate versions of the statistical methods. In these, based on economic theory, information on other variables, such as inflation and unemployment, is utilised in addition to GDP in the estimation of potential output. This helps to strengthen the link to economic theory and improve the statistical properties of the estimates by, for example, alleviating the end-point bias and therefore improving the real-time accuracy of the estimates (Borio et al., 2014).

The figure below shows changes in the structural balance (in ratio to GDP)<sup>2</sup> for the period 2010–2019 using four different methods of measuring the output gap: the European Commission's production function method, HP filter as well as univariate and bi-variate (inflation and GDP) unobservable components (UC) models. As regards 2018 and 2019, the calculations are based on the macroeconomic forecast by the Ministry of Finance.

There are differences between the methods as regards the changes in the structural budget balance. Although the rates of change differ, the direction of change is, however, usually the same. Exceptions to this are years 2011 and 2013, for which the views on the direction of change in the structural balance vary between the methods. This suggests that the momentary period of positive growth after the collapse of 2009 and the subsequent new decline are reflected differently in the methods' view of the potential output trajectory and, consequently, the output gap. As regards 2019, end-point bias may contribute to the differences between the methods. For example, estimates calculated using the HP filter can be subject to significant end-point bias.



**References:**

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Cotis, Jean-Philippe; Elmeskov, Jørgen and Mourougane, Annabelle (2004). "Estimates of potential output: benefits and pitfalls from a policy perspective" in The euro area business cycles: stylized facts and measurement issues. Centre for Economic Policy Research, pp. 35–60.

Havik, Karel; McMorro, Kieran; Orlandi, Fabrice; Planas, Christophe; Raciborski, Rafal; Röger, Werner; Rossi, Alessandro; Thu-Thysen, Anna and Vandermeule, Valerie (2014). "The Production Function Methodology for Calculating Potential Growth Rates & Output Gaps". European Commission Economic Papers 535.

2 Calculated using the formula  $sb_t = nb_t - \gamma \times og_t - x_t$ , where  $nb_t$  is the nominal public-sector balance in ratio to GDP,  $\gamma$  is the semi-elasticity between the output gap and the nominal public-sector balance,  $og_t$  is the output gap and  $x_t$  is non-recurring factors in ratio to GDP. Calculations are based on a fixed elasticity

## 2.1.2 General government debt

General government debt rose by EUR 1.1 billion in 2017, but the debt-to-GDP ratio still contracted by 1.7 percentage points to 61.3%. This was the second consecutive year when the debt-to-GDP ratio contracted. The amount of debt will continue to increase in the next few years, but the debt ratio will fall thanks to economic growth. The debt ratio is projected to dip slightly below 60% already this year.

Most of the general government debt, around EUR 105 billion, consists of on-budget debt. Central government debt totalled EUR 115 billion in 2017 and will continue to grow in the years ahead. Fighter aircraft acquisitions will begin to add to central government borrowing from 2021 onwards. In 2022, on-budget debt will be EUR 116 billion or 43.5% of GDP.

Local government debt was EUR 19.1 billion and debt held by social security funds around EUR 2.8 billion in 2017. Local government debt increased by around EUR 200 million. Starting in the current year, local government borrowing will increase again to around EUR 1 billion a year. In 2021, part of local government debt will be transferred to the Counties' Service Centre for Facilities and Real Estate Management owned by the then-operational counties, and the rate of local government indebtedness will slow. County government debt is estimated to be around EUR 5.1 billion at the end of 2021.

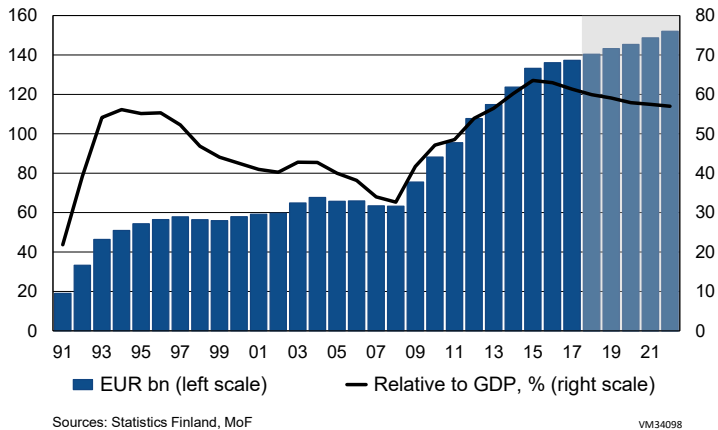
General government debt is also defined as including items other than on-budget debt and municipalities' and joint municipal authorities' debt. For example, debts

**Table 18. Change in general government debt ratio and related factors**

	2016	2017	2018**	2019**	2020**	2021**	2022**
Debt ratio, relative to GDP, %	63.0	61.3	59.9	59.1	57.9	57.5	57.0
Change in debt ratio	-0.5	-1.7	-1.4	-0.9	-1.2	-0.4	-0.5
<b>Factors impacting change in debt ratio</b>							
Primary budgetary position	0.7	-0.3	-0.2	-0.8	-1.0	-1.1	-0.9
Interest expenditure	1.1	1.0	0.9	0.9	0.9	0.9	0.9
Surplus of employment pension schemes (net acquisition of financial assets)	1.2	0.9	1.0	0.9	0.9	0.9	0.9
Other factors <sup>1</sup>	-1.5	-1.1	-0.3	0.2	0.1	0.6	0.4
Change in GDP	-2.0	-2.2	-2.8	-2.1	-2.1	-1.8	-1.8

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.

**General government debt**



of several off-budget units and companies are classified under central government debt. In addition, security deposits in connection with derivative instruments used for purposes of managing the central government debt portfolio, debts related to public-private partnerships, the capital assets of the State Nuclear Waste Management Fund and coins in circulation are included in general government debt. Debts of several municipally owned companies are also counted as local government debt. Social security fund debt consists of the debt of the Unemployment Insurance Fund and cash collateral related to derivative contracts of authorised pension providers.

The table below describes the factors contributing to the change in the general government debt ratio. GDP growth decreases the debt ratio on average by 2 percentage points a year and is the largest single factor impacting change in the ratio.

The general government primary balance, that is, deficit before interest payments, posted a surplus in 2017 and will therefore reduce the need for borrowing in the outlook period. General government borrowing will, however, continue because interest expenditure and the surplus of earnings-related pension funds exceed the primary balance surplus. The surplus of earnings-related pension funds is not used to cover general government deficit. Instead, it is funded to cover future pension expenditure.

‘Other factors’ describe other factors explaining the change in the difference between deficit and borrowing. These include timing differences, coverage of



deficit with financial assets or acquisition of financial assets instead of debt repayment. Starting from 2021, central government debt and budget deficit will be increased by the financing of the fighter aircraft acquisitions. The fighter aircraft acquisitions will not be recorded in the national accounts as expenditure until later once the fighter aircraft deliveries commence.

## CONTINGENT LIABILITIES

General government's contingent liabilities have grown significantly since the financial crisis. Contingent liabilities mean possible obligations depending on whether a future event materialises. If materialised, such liabilities may result in general government expenditure.

Contingent liabilities can be divided into explicit and implicit liabilities. Explicit liabilities include state guarantees, and central government capital liabilities. Capital liabilities mean capital payable upon request to international financial institutions, which may be required, for example, to avoid insolvency of a financial institution. Implicit liabilities are not based on agreements but, in practice, general government may ultimately have to safeguard, for example, the functioning of the financial market.

The economically most significant contingent liabilities are guarantees issued by general government. At the end of 2017, general government guarantees already accounted for almost 32% of GDP or EUR 71 billion.<sup>1</sup>

Of the general government subsectors, central government has the largest guarantees. The amount of state guarantees has grown significantly in recent years. At the end of 2017, central government guarantees amounted to more than EUR 50 billion or around 23% of GDP.<sup>2</sup> Before the financial crisis, the guarantee to GDP ratio was 7%. The increase in guarantees is due to an increase in guarantees relating to export financing in particular. Other significant guarantees include guarantees of the Housing Fund of Finland, guarantees to the European Financial Stability Facility (EFSF) and student loan guarantees.

In addition to central government, local government also issues guarantees. For example, municipalities issue guarantees to their subsidiaries and other entities. In

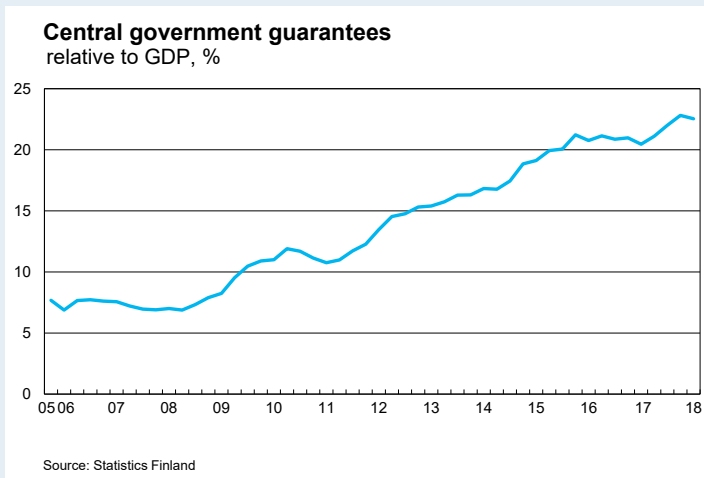
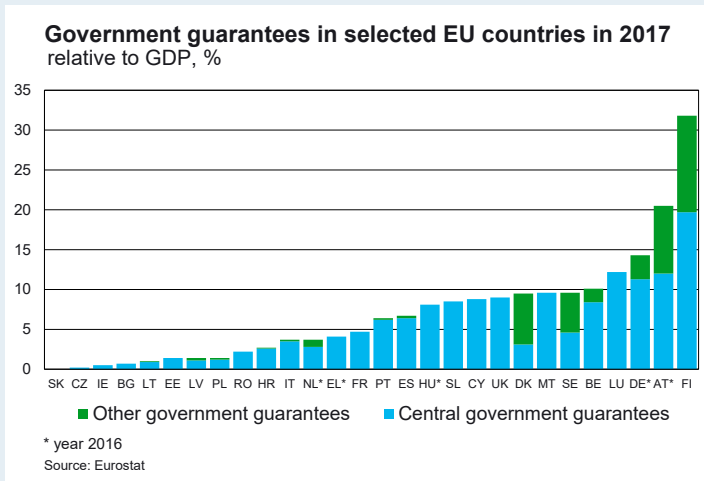
1. Source: Eurostat. Based on the national accounts, the statistics on government guarantees do not include guarantees such as those relating to the EFSF as these are classified under guarantor countries' debt in the statistics. However, the Finnish statistics on central government guarantees also include EFSF guarantees.

2. Source: Statistics Finland: Central government guarantees. Includes EFSF guarantees.

addition, municipalities jointly through the Municipal Guarantee Board guarantee the funding of Municipality Finance Plc. In 2017, local government guarantees amounted to 12.1% of GDP. The amount of local government guarantees has also increased, according to preliminary data particularly in 2017.

On an international scale, Finland's general government guarantees are extensive, with the rate being clearly the highest among the EU countries according to Eurostat statistics. Although not causing major losses in recent years, the increase in guarantees still poses a growing risk to general government finances.

Direct and contingent liabilities of central government are examined and described in greater detail in the Overview of Central Government Risks and Liabilities published annually by the Ministry of Finance.



## 2.2 Central government

The central government deficit has contracted in recent years. Nevertheless, the deficit was still substantial last year. The improvement in the budgetary position was due to growth in total revenue while expenditure remained unchanged. The biggest reason for the improved budgetary position was the increase in tax revenue, particularly income tax and value-added tax revenue. Some of this tax revenue was temporary and will no longer strengthen central government finances in 2018.

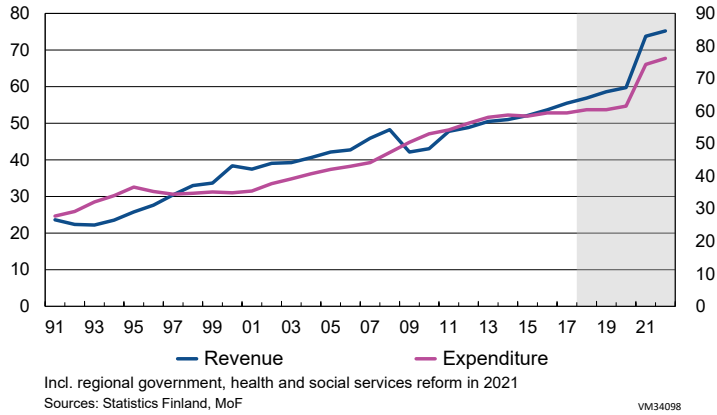
In the current year, central government deficit will contract slightly. Tax revenue will increase moderately and the measures taken by the Government to curb expenditure will keep expenditure growth at a modest level. On the other hand, investments in the Government's key projects will result in investment expenditure growth. The budgetary position will improve more noticeably next year. Total expenditure will not grow and tax revenue will increase at a rate exceeding 3%. Government investments in key projects will no longer be included in expenditure, and the impact of consolidation measures will increase.

Over the medium term, the deficit will still contract a little further, after which it will start to expand again. As economic growth will slow, revenue growth will also slow. In addition, the preparation of the health, social services and regional government reform and the establishment of the counties in 2021 will increase central government expenditure, too, especially in the initial phase.

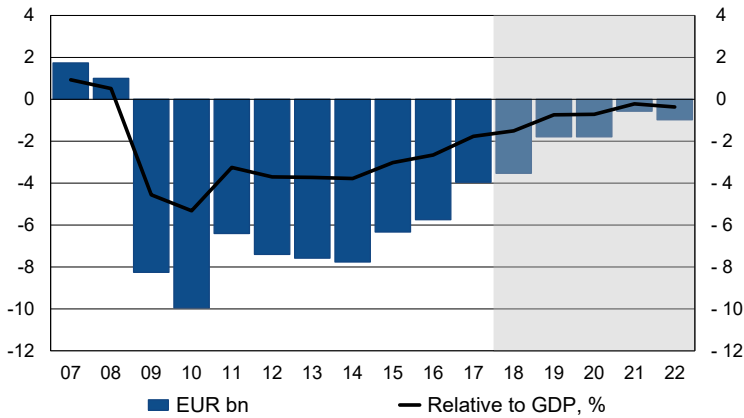
Central government debt stood at EUR 105.8 billion at year-end 2017. The central government on-budget deficit is projected to persist until the end of the decade, which means central government indebtedness will continue. The rate of debt accrual will, however, slow considerably. In 2022, central government debt is projected to be around EUR 116 billion or around 43% of GDP.

State guarantees at year-end 2017 exceeded EUR 50 billion, equating to almost 93% of on-budget expenditure. The amount of guarantees issued increased by almost EUR 6 billion in 2017. State guarantees include guarantees issued by central government, unincorporated state enterprises, state-owned companies and special credit institutions for which central government is ultimately liable. These guarantees are not an expenditure item and do not show up in the central government budget, unless the guarantees are called.

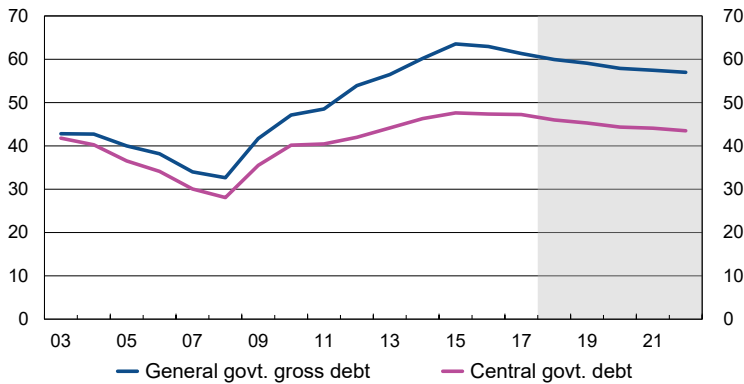
### Central government revenue and expenditure EUR bn



### Central government financial balance



### General government debt relative to GDP, %



**Table 19. Central government<sup>1</sup>**

	2015	2016	2017	2018**	2019**	2020**
	EUR billion					
Current taxes	13.0	13.7	14.4	14.8	15.6	16.0
Taxes on production and imports	29.7	31.1	31.5	32.6	33.4	34.0
Social security contributions	0.0	0.0	0.0	0.0	0.0	0.0
Taxes and social security contributions, total <sup>2</sup>	43.3	45.3	46.9	48.1	49.8	50.8
Other revenue <sup>3</sup>	9.2	8.7	8.7	8.9	8.9	9.1
of which interest receipts	0.4	0.3	0.3	0.3	0.3	0.4
<b>Total revenue</b>	<b>52.5</b>	<b>54.0</b>	<b>55.6</b>	<b>57.0</b>	<b>58.7</b>	<b>59.8</b>
Consumption expenditure	13.7	14.0	13.4	13.8	14.1	14.4
Subsidies and current transfers, total	38.2	38.8	39.5	39.8	40.0	40.7
to general government	26.2	27.1	28.1	28.3	28.2	28.7
Interest expenses	2.3	2.2	2.1	1.9	1.9	2.0
Capital expenditure <sup>4</sup>	4.7	4.8	4.6	5.1	4.5	4.6
<b>Total expenditure</b>	<b>58.8</b>	<b>59.7</b>	<b>59.6</b>	<b>60.5</b>	<b>60.5</b>	<b>61.6</b>
<b>Net lending (+) / net borrowing (-)</b>	<b>-6.3</b>	<b>-5.7</b>	<b>-4.0</b>	<b>-3.5</b>	<b>-1.8</b>	<b>-1.8</b>
Primary balance <sup>5</sup>	-4.4	-3.8	-2.1	-2.0	-0.2	-0.2

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

## Expenditure growth still moderate in the next few years

Central government expenditure is anticipated to grow moderately in the next few years. Expenditure growth will be curbed by the Government Programme's gradually increasing consolidation measures and the ending of additional expenditure arising from key projects in 2019. The reductions in employer contributions and temporary holiday bonus cuts included in the Competitiveness Pact have decreased the employee compensations paid by central government. Correspondingly, the expiry of the temporary holiday bonus cut will increase employee compensation spending in 2019. The fighter aircraft project, for which central government spending limits provide allocations from 2021 onwards, will not add to central government expenditure as shown in the national accounts in the outlook period. As the national accounts are recorded on an accrual basis, the expenditure in question is booked in the forecast for the year in which the fighter aircraft will be delivered. Due to low interest rates, central government interest expenditure will still remain low over the outlook period.

Central government expenditure structure will change from 2021 onwards when the counties become operational. The counties will finance their activities with current transfers from central government, which will increase the total expenditure of central government.

### Good tax revenue growth in the next few years

The most significant tax revenue items are taxes on earned and capital income, value-added tax and corporation tax. In recent years, the taxation emphasis has shifted from direct to indirect taxes.

The majority of the changes to tax criteria in accordance with the Sipilä Government Programme have already been implemented in the 2016–2018 period. Key measures have included easing of taxation on labour and raising of excise duties and real estate taxation. In 2019, the gradual implementation of changes in accordance with the Government Programme will continue: raising the excise duty on tobacco products, easing car taxation and reducing the tax credit on home loan interest. In its autumn 2019 budget negotiations, the Government decided that the taxation

**Table 20.** Forecasts for certain revenue and demand items impacting taxable income and the tax base

	2017	2018**	2019**	2020**	2022/2018**
	change, % per year				annual change, %
Taxable earned income and capital income	2.3	3.5	3.3	3.5	3
Wage and salary earnings and other income	2.3	4.2	3.5	3.6	3½
Pensions and other social security benefits	0.4	1.0	2.4	3.3	2½
Capital income	7.7	6.3	4.2	3.7	3½
Index of wage and salary earnings	0.3	1.8	2.6	3.0	2½
Operating surplus	13.2	9.0	5.2	4.3	6
Value of household taxable consumption expenditure	1.6	3.3	2.9	2.9	3
VAT base	1.9	3.8	2.6	2.5	3
Petrol consumption	-2.4	-1.7	-2.3	-2.0	-2½
Diesel consumption	-0.7	0.7	0.4	0.3	0
Electricity consumption	1.4	3.0	0.7	0.4	7/8
Duty-paid alcohol consumption	-1.2	0.8	0.1	-0.7	1/7
New passenger cars	116300	124000	127000	130000	132200
Consumer price index	0.7	1.1	1.4	1.6	1½

## THE 2019 BUDGET AND CENTRAL GOVERNMENT SPENDING LIMITS

The Government Programme of Prime Minister Sipilä's Government contains the multiannual spending rule guiding the development of central government budgetary expenditure during central government spending rules for the entire parliamentary term. It sets the ceiling for the majority, around four fifths, of the total budgetary expenditure. The spending rule is designed to ensure a prudent and long-term spending policy that promotes economic stability.

The budget proposal for 2019 is based on the General Government Fiscal Plan 2019–2022 approved in April 2018. The central government spending limits were set taking into account the expenditure savings agreed in and after the Government Programme. The spending limits level for 2019 is EUR 44.4 billion, of which around EUR 107 million will remain as an unallocated reserve after the budget proposal for 2019. A further EUR 300 million has been earmarked for supplementary budget needs. Expenditure items not included in the spending limits consist of expenditure that varies according to cyclical fluctuations and automatic stabilisers, such as unemployment security expenditure, pay security, housing allowances and basic social assistance. However, expenditure effects generated by changes in the criteria for these items are included within the spending limits. Debt interest payments, value-added tax expenditure, financial investment expenditure and expenditure corresponding to technically transmitted payments by central government are also excluded from the spending limits. Expenditure outside the spending limits totals around EUR 11.3 billion in 2019.

Expenditure according to the 2019 budget proposal totals around EUR 55.3 billion, down by around EUR 0.5 billion from the ordinary 2018 budget. The expenditure level is reduced, among others, by the ending of the financing of temporary key projects of around EUR 740 million and the reduction of around EUR 300 million in unemployment security appropriations due to the improved employment situation. The net savings affecting central government appropriations decided by the Government in accordance with Annex 6 of the Government Programme will increase by almost EUR 0.3 billion compared with the savings of 2018. An upward effect on central government expenditure in 2019 will arise from, among others, changes based on legislation and agreements, such as pay rises under collective agreements. Despite the increase in central government debt, interest expenditure will remain almost unchanged at EUR 1.2 billion.

In 2019, on-budget revenues (excl. borrowing) are estimated to total around EUR 53.9 billion and tax revenue around EUR 45.8 billion. On-budget tax revenue will grow by 3.7% from that budgeted for 2018 (incl. supplementary budgets). Total on-budget revenues excluding borrowing will decrease by 1 %, which is explained by the premature repayment of export credits granted by central government taking place in 2018. It was decided in the first supplementary budget in spring 2018 that Finnish Export Credit will prematurely pay back refinancing export credits it has received from central government. The arrangement relates to Finnvera's cash asset investment. This will

improve the central government budgetary balance by around EUR 1.4 billion in 2018 but, in the coming years, correspondingly reduce the revenue flow that would have come from loan repayments, initially by around EUR 300 million a year. Over the long term, the arrangement will be almost neutral for central government.

Earned income tax criteria will be index-adjusted in accordance with the Index of Wage and Salary Earnings. In addition, earned income tax criteria will be reviewed to avoid increases in taxation as social security contributions increase. In its budget session, the Government decided to ease earned income tax by EUR 130 million across the income brackets. In accordance with the Government Programme, the gradual easing of car tax will continue at EUR 65 million and the excise duty on tobacco products will be raised by EUR 68 million in 2019. Additionally, in budget session the Government decided to increase energy taxes, excise duty on alcohol and soft drinks to finance earned income tax cuts.

The budget proposal shows a deficit of EUR 1.4 billion, which will be covered by taking new debt. At year-end 2019, central government debt is estimated to total around EUR 109 billion. The on-budget deficit will have increased by around EUR 0.1 billion compared with the General Government Fiscal Plan of spring 2018. Based on data received on actual development, the tax revenue projection is EUR 0.1 billion lower than anticipated in the spring, despite the cyclical outlook still being positive. Dividend and stock sales income is assumed to be EUR 0.4 billion higher than anticipated in the General Government Fiscal Plan 2019–2022 approved in April 2018.

In addition, interest receipts gained by central government and repayments of loans granted will be reduced by the above-mentioned export credit arrangement. Compared with the General Government Fiscal Plan of spring 2018, on-budget expenditure will be around EUR 250 million higher.

**Table: Factors affecting changes in central government on-budget balance compared with the General Government Fiscal Plan of spring 2018, EUR billion.**

	2019
<b>Estimated balance, General Government Fiscal Plan of 13 April 2018</b>	<b>-1,3</b>
<b>Revision of expenditure estimate</b>	<b>-0.2</b>
Support for the Finnish food production	-0,1
The premature repayment of export credits	0,1
Compensation to municipalities for tax criteria changes	-0,1
Other change (net)	-0.1
<b>Revision of revenue estimate</b>	<b>0.1</b>
New tax criteria changes	0.0
Changes to estimates of miscellaneous revenue and revenue from interests, dividends and sales of shares	0.2
Other factors impacting revenue estimate (incl. tax accrual data and new cyclical forecast)	-0.1
<b>Total change</b>	<b>-0.1</b>
<b>Estimated balance, budget proposal</b>	<b>-1.4</b>



of earned income will be reduced, with the emphasis on low-income earners, by raising the low-income allowance, the earned income deduction and the pension income allowances in central and local taxation. To balance the parameter changes that reduce labour taxation, the Government has decided to increase excise duty on alcohol, soft drinks and to increase energy tax. In addition, the earned income and capital income tax forecast assumes that index adjustments will be carried out in the 2020–2022 period to ensure that the tax burden on labour does not increase as a result of higher earnings levels or inflation.

Tax revenue from earned and capital income will continue to grow in 2018. Tax revenue will be increased by the particularly good development of the employment rate, which is increasing the amount of earned income. On the other hand, tax revenue growth will be eroded by the reduction in tax on earned income effective from the beginning of the year and the decrease in taxable unemployment benefits as unemployment is falling. Corporation tax revenue will decrease from the previous year, but this contraction is explained by a temporary exceptionally large payment made in 2017. Value-added tax revenue growth will remain strong, buoyed by household consumption. The overall development of excise duty revenue is anticipated to be very moderate over the outlook period. The tax bases of excise duties are projected to mainly shrink due to the steering effect of taxation.

The economy will continue to boom next year, maintaining strong tax revenue growth in many tax types. Over the medium term, slowing economic growth will result in tax revenue growth also slowing.

Tax criteria changes affecting central government tax revenue over the medium term are related to the health, social services and regional government reform entering into force in 2021. In conjunction with the reform, the responsibility for organising health and social services will be transferred from the municipalities to the counties and the responsibility for financing these services from the municipalities to the central government. The municipalities' revenue will be reduced by decreasing central government transfers to local government, local income tax and the municipalities' share of corporate tax revenue commensurately with the transferred costs. Central government earned income taxation will be increased to correspond with the reduction of local income tax, and the central government's share of corporate tax revenue will grow. In line with the policy of the Government Programme,

**Table 21. Impact of change in selected tax base items on tax revenue**

Tax category	Tax base	Change	Change in tax revenue, EUR million
Taxes on earned income	Wage and salary earnings	1-pp	424, of which central govt. 126 and local govt. 198
	Pension incomes	1-pp	135, of which central govt. 35 and local govt. 88
Capital income tax	Investment income	1-pp	38
Corporate tax	Operating surplus	1-pp	61, of which central govt. 42 and local govt. 19
VAT	Value of private consumption	1-pp	126
Car tax	Sales of new cars	thousands	6
Energy tax	Electricity consumption <sup>1</sup>	1-pp	9
	Petrol consumption	1-pp	13
	Diesel consumption	1-pp	14
Duty on alcoholic beverages	Alcohol consumption	1-pp	15
Duty on cigarettes	Cigarette consumption	1-pp	10

**Table 22. Central government on-budget revenue**

	2017	2018**	2019**	2020**	2021**	2022**	2022/2018**
	provisional financial accounts	budget incl. supplementary budget	EUR billion				annual change, %
Total tax revenue estimates	43.1	44.2	45.8	46.7	60.8	63.3	8½
Income and wealth taxes	14.3	14.5	15.2	15.6	27.9	29.7	19
Taxes based on turnover	18.5	19.0	19.8	20.3	22.2	23.0	4½
Excise duties	7.0	7.4	7.5	7.5	7.4	7.3	½
Other taxes	3.3	3.3	3.3	3.3	3.4	3.4	½
Miscellaneous revenue	5.5	5.6	5.8	5.7	5.7	5.7	½
Interest income and profit entered as income	2.1	2.8	2.2	1.8	1.8	1.9	-½
<b>Total revenue estimates</b>	<b>51.3</b>	<b>52.7</b>	<b>53.9</b>	<b>54.3</b>	<b>68.5</b>	<b>71.0</b>	<b>7</b>

**Table 23. Impact of discretionary tax measures on general government tax revenue**

	2017	2018**	2019**	2020**	2021**	2022**
	EUR million					
Earned income taxes	-805	-417	-216	-457	-599	-501
Average increase in municipal tax rate	50	-38	0	0	0	0
Investment income tax	2	-9	0	0	0	0
Corporate tax	105	5	7	18	-2	0
Other direct taxes	-1	-57	-81	2	2	2
Value-added tax	-156	-150	-0	-0	0	0
Energy taxes	116	47	38	-2	0	0
Other indirect taxes	39	151	113	3	0	0
Social security contributions	-1033	-443	-627	576	-444	-142

no one's tax burden may increase as a result of the transfers. For this reason, earned income taxes will be moderately eased from the beginning of 2021.

Other sources of central government revenue include property income and transfers from the State Pension Fund of Finland. Revenue entries by the holding company Solidium, which is classified as part of the central government sector in the national accounts, do not show up as central government revenue in the national accounts. Dividends received by Solidium, on the other hand, are booked as central government revenue. A transfer from the State Pension Fund is used to cover part of central government's pension expenditure. It is estimated that central government property income will remain at around EUR 1.7 billion over the forecast horizon. Central government dividend revenue will increase in the current year, and interest revenue will remain at a historically very low level.

### National accounts deficit differs from on-budget deficit

As a general rule, the central government net lending according to the national accounts cannot be directly inferred from the on-budget balance. Central government on-budget finances showed a deficit of EUR 3.7 billion in 2017. According to preliminary national accounts data, the deficit posted by central government as a whole totalled EUR 4.0 billion. The on-budget and central government budgetary positions were exceptionally close to each other compared with previous years. During the outlook period, differences between on-budget and national accounts

**Table 24. On-budget balance and central government net lending<sup>1</sup>**

	2016	2017	2018**	2019**	2020**
	EUR billion				
<b>On-budget surplus (+) / deficit (-)<sup>2</sup></b>	-4.9	-3.7	-1.6	-1.4	-1.5
Privatization proceeds (net proceeds from equity sales)	-0.1	-0.1	-0.8	-0.4	0.0
Financial investment, net	-0.8	-0.9	-2.0	-0.3	-0.3
Revenue surplus in off-budget units	-0.1	-0.1	-0.1	-0.1	0.0
Cash / accrual basis adjustment	-0.2	0.6	0.2	0.4	0.2
Other adjustment items <sup>3</sup>	0.3	0.2	0.8	0.0	-0.2
<b>Central government net lending (+) / borrowing (-)</b>	<b>-5.7</b>	<b>-4.0</b>	<b>-3.5</b>	<b>-1.8</b>	<b>-1.8</b>

1) In National Accounts terms

2) Incl. government debt servicing

3) Incl. debt cancellations, profit on reinvested foreign direct investments, impact of the difference in the recording of deferrable budgetary appropriations, superdividends

will be caused by timing differences relating to defence equipment acquisitions and the regional government reform, and by revenue from share sales and other financial investments. In 2021 and 2022, the national accounts deficit is projected to be smaller than the on-budget deficit.

Central government borrowing needs cannot always be inferred from the budget deficit, either. In 2017, the State Treasury's net borrowing was around EUR 3.1 billion, which is EUR 600 million below that required by the budget deficit. Generally speaking, there are several reasons for the difference between the deficit and the movement in debt. Last year's difference is explained particularly by deferrable appropriations and use of liquid assets.

There are also several reasons for the budgetary position discrepancy between the fiscal budget and the national accounts. The most important of these is the fact that the national accounts concept of central government is broader than the on-budget entities, which mainly comprise central government agencies. In addition to on-budget entities, the central government sector in the national accounts also includes, for example, government funds (excluding the State Pension Fund), universities and their property companies, and Senate Properties. Classifications of various public units are revisited regularly. For example, last year the national ICT service centre for counties Vimana Oy and the Development Company for Digitalisation in Health and Social Services SoteDigi Oy were classified as falling under the central government sector. A list of all units of central government and, more broadly, general government can be found on the Statistics Finland website.<sup>1</sup>

In addition to classification, discrepancies are caused by the expenditure recognition principles of the national accounts and on-budget expenditure differing from each other. The national accounts are accrual based, whereas on-budget activities are based partly on the cash-basis principle. Due to the different recognition principles, deferrable appropriations in the budget in particular result in differences between on-budget and national accounts expenditure. These are two or three-year grants that are entered in the budget for one year only. In the national accounts, deferrable appropriations are recognised on an accrual basis according to their year of use in the same way as other expenditure. The net effect of deferrable appropriations can vary widely from year to year. Timing adjustments are made in the accounts to taxes,

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<sup>1</sup> [http://www.stat.fi/meta/luokitukset/\\_linkki/julkisyhteisot.html](http://www.stat.fi/meta/luokitukset/_linkki/julkisyhteisot.html)

subsidies and EU payments to recognise them on an accrual basis. The differences in figures arising from the timing adjustments can only be seen retrospectively.

Also financial investments such as loans granted and repaid by central government, and share sales and purchases, are included in the on-budget balance, while in the national accounts these items are usually entered as financial transactions that have no effect on central government's fiscal balance as reported in the national accounts. Also recorded as financial transactions are derivatives, which the State Treasury has successfully used to achieve significant reductions in the interest outlays from the budget. Because the downward effect of derivative instruments on interest expenditure is not taken into account in the national accounts, interest outlays in the national accounts are clearly higher than on-budget interest outlays. During the current year, central government will receive significant revenues from sales of shares and from loan repayments, which will reduce the on-budget deficit but not the deficit according to the national accounts.

EU Member States report twice a year to Eurostat on the differences between their central government on-budget and national accounts figures in conjunction with their deficit and debt reporting. As regards past years, they are required to provide satisfactory explanations for the difference between the budgetary position indicated by the central government accounts and the net lending figures indicated by the national accounts. The same goes for other subsectors of general government finances. Furthermore, the reports provide information on so-called debt dynamics, that is, on how closely general government net lending matches with the change in public debt.

## 2.3 County government

The counties will start their operations proper in 2021. For the purposes of the forecast for general government finances, counties have been singled out as a separate subsector starting from that year. The responsibility for organising health and social services will be transferred to the counties from the municipalities, and several other, smaller duties will be transferred to the counties from the municipalities and central government. Due to the deferral of the implementation of the reform, other related measures have also been pushed back by a year. In the forecast, the country

sector covers both counties and the national service centres owned by them, such as the Counties' Service Centre for Facilities and Real Estate Management.

The majority of the counties' expenditure will relate to health and social services. The overall level of expenditure will be around EUR 25.3 billion in 2021, with personnel expenditure and service purchases accounting for most of this. The counties will also have, for example, some allowance expenditure and investments. The increase in the ageing population using a lot of health and social services will create growth pressure on county expenditure.

Most of the counties' revenue will come from central government funding. Central government funding will include universal funding and value-added tax refunds. In addition, the counties will receive sales and fee revenue from service users at a total of around EUR 3.1 billion in 2021. County revenues are expected to total approximately EUR 24.3 billion in 2021. County funding will develop in accordance with the county index and the annual funding reviews.

The budgetary position of the county sector will be in deficit. This is particularly due to the facilities projects currently underway in hospital districts. The Counties' Service Centre for Facilities and Real Estate Management will assume responsibility for these projects.

The counties' revenue and expenditure less investment will be near balance in 2021, but after that this balance will weaken. The counties' balance will be weakened by measures including the halving of the county index in 2022. The forecast is a pressure projection by nature, which means it does not contain assumptions on counties' consolidation measures, behavioural impacts of the reform or increases in operational efficiency. Instead, expenditure and funding follow their respective trajectories. The counties' measures will be taken into account in the forecast once the counties' budgets have been completed.

The country sector's investment in 2021 will be at a high level, totalling around EUR 0.9 billion. The level of investment will also continue to be high in 2022. In addition to hospital districts' facilities projects, county government investment will be maintained by development projects relating to health and social services information systems.

In addition to properties and other assets, a significant amount of debt will also be transferred from hospital districts to the county sector. The estimated total amount of county sector debt at year-end 2021 is around EUR 5.1 billion.

The counties will initially incur additional expenditure from launching and organising their activities. The forecast is not yet able to take into account transition costs because of their uncertainty and quantitative inaccuracy. Transition costs entail an expenditure risk for the forecast.

**Table 25. County finances**

	2021**
	EUR billion
Transfers from central government	21.0
Other revenue	3.3
<b>Total revenue</b>	<b>24.3</b>
Consumption expenditure	20.6
Current transfers and other expenditure	1.0
Capital expenditure	0.9
<b>Total expenditure</b>	<b>25.3</b>
<b>Net lending (+) / net borrowing (-)</b>	<b>-1.0</b>
Debt	5.1

## 2.4 Local government

The financial situation of local government has improved considerably in recent years. Deficit contracted for the third consecutive year in 2017 and was only 0.1% of GDP. In the current year, however, the budgetary position of local government will weaken year on year. Consumption expenditure will grow due, for example, to the increase in care and nursing costs due to population ageing, the reduction in daycare charges paid by low- and middle-income families and related increase in daycare demand, the preparation of the regional government, health and social services reform, and the increase in municipal-sector earnings level. Local government employees' earnings level is increased in 2018 by, among others, the across-the-board increase paid in May and the non-recurring performance-related item to be paid in January 2019 but entered on an accrual basis already in the 2018 accounts. Local government revenue growth will be very modest in the current year. Despite the good cyclical situation, local government income tax revenue will even

decrease slightly year on year. This is due, among others, to exceptionally large refunds of prepaid tax, the downward adjustment of municipalities' apportionment and a large one-off item relating to corporation tax in 2017.

The local government finances projection for the 2019–2022 period only contains measures affecting expenditure and revenue that have already been decided. Municipalities' and joint municipal authorities' measures will be taken into account in the forecast once budgets have been completed.

Local government deficit will decrease gradually in the 2019–2022 period. In 2019, expenditure will be increased not only by health and social service needs, but also by municipal-sector pay rises and the expiry of the holiday bonus cut of the Competitiveness Pact, most of the impact of which will be seen already in 2019<sup>1</sup>. Capital expenditure will also remain at a high level due to busy hospital construction. Local government revenue will, however, increase at a rate faster than expenditure when tax revenue growth picks up in 2019. Municipalities' tax revenue growth will be accelerated by, among others, the exceptionally low tax revenues of 2018 and a one-off tax revenue increase in 2019<sup>2</sup>. There will be a reduction in the current level of government aid due to issues including a revision of the division of costs between central and local government. The revision of the division of costs between central and local government based on actual costs in 2016 will reduce the central government transfer to municipalities for basic public services by more than EUR 200 million. According to the Government Programme, no index increase will be made to central government transfers to municipalities in 2019, either.

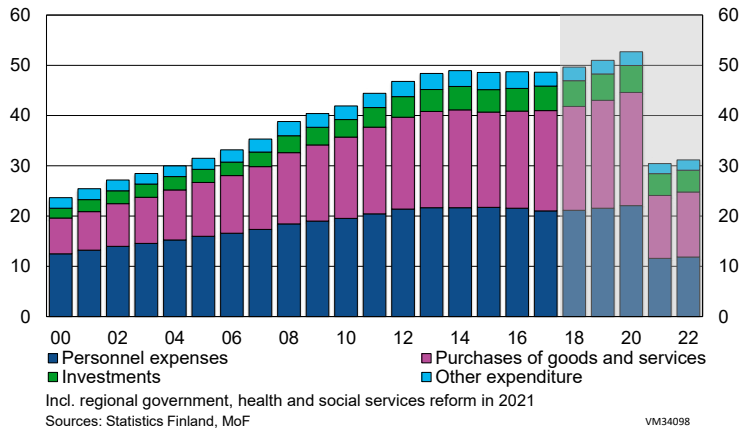
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1 The holiday bonus cut reduction applies to holiday bonuses earned during the holiday credit years ending in 2017–2019. The 2019 holiday credit year ends on 31 March 2019, so the expenditure effect will be mostly restored already in 2019.

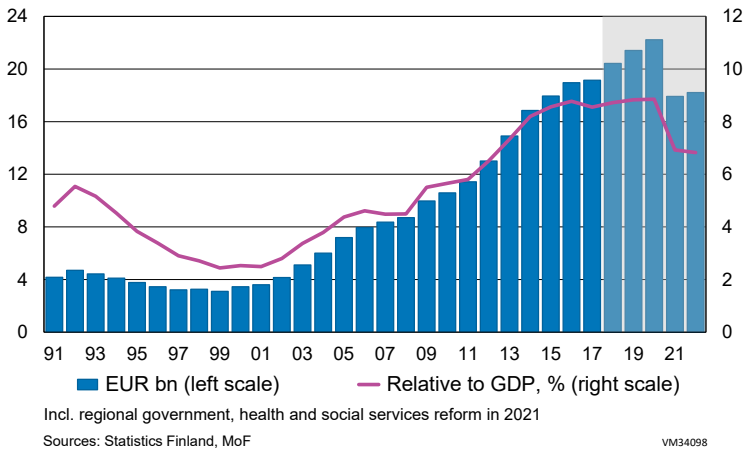
2 The one-off increase is due to the switch to taxpayer-specific closing of the preassessment process. This will bring forward the payment of back taxes. Taxpayer-specific closing of the preassessment process will enable income tax accrual and payments to tax recipients earlier than is currently the case. From taxation for the 2018 tax year onwards, the payment dates of tax refunds and due dates of back taxes will be determined on the basis of the taxpayer-specific closing of the preassessment process. The monthly dispersion of payments to municipalities will be reduced, that is, taxes will be paid to municipalities more evenly than at the moment, especially towards the end of the calendar year. Individual taxpayers' back taxes will accrue and tax refunds will be paid earlier than at the moment. More than three quarters of individual taxpayers' tax refunds will be paid out in August, whereas at the moment these are deducted from the November payments. Viewed on a monthly basis, real estate taxes will be paid to municipalities earlier and more evenly across the year than at the moment, mainly in the period between July and November.



### Local government expenditure EUR bn



### Local government debt



The budgetary position of local government will improve slightly in 2020. Government aid in particular is anticipated to increase a great deal as municipalities will be compensated around EUR 240 million for the Competitiveness Pact’s holiday bonus cut so that the holiday bonus cut will not be taken into account twice in central government transfers to local government. In addition, government aid will be increased by the partial removal of the cuts relating to the Competitiveness Pact and the index increase to be made to central government transfers to local government.

Changes in the demographic age structure have already long been increasing the need for care and nursing services and adding to expenditure pressures in local government. Growth pressure on local government expenditure will, however, ease from 2021 onwards as a result of the health and social services reform. Following the reform, local government duties will focus increasingly on services for the younger age cohorts, such as early childhood and other education and training, which are not facing corresponding expenditure pressures due to changes in the population age structure. The budgetary position of local government will remain slightly in deficit in the 2021–2022 period. The nominal debt of local government will increase in the 2018–2020 period, but in 2021 the amount of debt will decrease as EUR 4.1 billion of hospital districts' debt will be transferred to county government.

**Table 26. Local government<sup>1</sup>**

	2015	2016	2017	2018**	2019**	2020**
	EUR billion					
Taxes and social security contributions	21.9	22.0	22.8	22.6	24.0	24.7
of which municipal tax	18.6	18.7	19.1	18.9	20.1	20.7
corporate tax	1.7	1.5	1.9	1.8	2.0	2.1
real estate tax	1.6	1.7	1.8	1.8	1.9	1.9
Other revenue <sup>2</sup>	18.5	19.0	18.7	19.1	19.3	20.3
of which interest receipts	0.3	0.3	0.3	0.3	0.3	0.3
transfers from central government	13.7	14.3	13.9	14.2	14.1	14.9
<b>Total revenue</b>	<b>40.3</b>	<b>40.9</b>	<b>41.5</b>	<b>41.8</b>	<b>43.2</b>	<b>45.0</b>
Consumption expenditure	33.8	34.0	34.2	35.0	36.1	37.6
of which compensation of employees	21.7	21.6	21.0	21.1	21.6	22.1
Income transfers	3.3	3.3	2.8	2.7	2.7	2.7
of which social security benefits and allowances	1.3	1.4	0.8	0.8	0.7	0.8
subsidies and other transfers	1.8	1.8	1.9	1.8	1.8	1.8
interest expenses	0.1	0.1	0.1	0.1	0.1	0.1
Capital expenditure <sup>3</sup>	4.6	4.5	4.9	5.1	5.3	5.4
<b>Total expenditure</b>	<b>41.7</b>	<b>41.8</b>	<b>41.8</b>	<b>42.9</b>	<b>44.1</b>	<b>45.7</b>
<b>Net lending (+) / net borrowing (-)</b>	<b>-1.4</b>	<b>-0.9</b>	<b>-0.3</b>	<b>-1.1</b>	<b>-0.8</b>	<b>-0.7</b>
Primary balance <sup>4</sup>	-1.5	-1.1	-0.4	-1.3	-1.0	-0.8

1) As calculated in 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

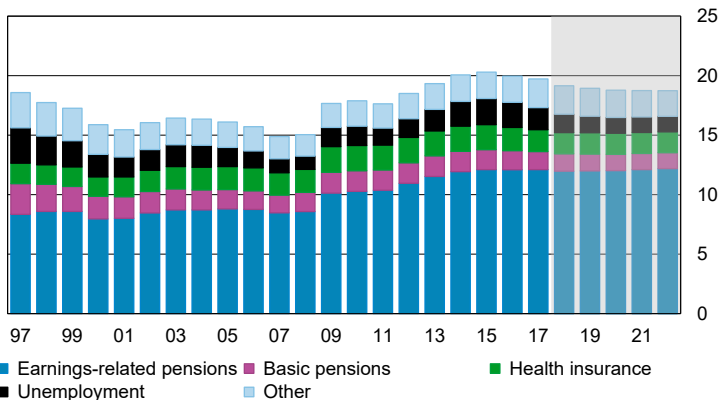
## 2.5 Social security funds

### 2.5.1 Earnings-related pension schemes

The surplus of earnings-related pension schemes fell to 0.9% of GDP in 2017, compared with an average of just over 3% in the first decade of the 2000s. Earnings-related pension expenditure has increased rapidly in recent years with the growing number of pensioners. As well as the number of pensioners, pension expenditure has also increased due to the higher average level of pensions as new pensions starting are higher than old ones in payment. At the same time, low interest rates have reduced pension funds’ property income. However, rising asset prices and share prices in particular already increased the total value of pension assets to around EUR 200 billion at year-end 2017.

The surplus of earnings-related pension schemes is projected to remain at last year’s level throughout the outlook period. The rate of growth of earnings-related pension expenditure will remain close to 4% during the period. Although growth in the number of pensioners is gradually slowing, the higher average level of pensions and the annual indexations of pensions will increase pension expenditure. On the other hand, the rapid increase in the sum of wages and salaries will increase income from pension contributions. In addition, pension schemes revenue from property income is expected to gradually take a downturn as interest rates begin to pick up. The private-sector pension insurance contribution is expected to remain at the current level of 24.4% during the outlook period. The latest long-term projections by the Finnish Centre for Pensions indicate that there may be slight upward pressure on this contribution level after the outlook period, however.

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



**Table 27. Finances of social security funds<sup>1</sup>**

	2015	2016	2017	2018**	2019**	2020**
	EUR billion					
Investment income	3.4	3.5	3.7	3.8	4.1	4.5
Social security contributions	26.9	27.9	27.4	28.0	28.3	29.9
of which contributions paid by employers	18.2	18.8	17.7	17.6	17.5	18.3
contributions paid by insured	8.7	9.2	9.7	10.4	10.8	11.6
Transfer from general government	14.3	14.6	15.8	15.6	15.5	15.2
Other revenue	0.5	0.5	0.4	0.4	0.4	0.4
<b>Total revenue</b>	<b>45.2</b>	<b>46.5</b>	<b>47.3</b>	<b>47.9</b>	<b>48.5</b>	<b>50.1</b>
Consumption expenditure	3.7	3.6	3.6	3.7	3.8	3.9
Social security benefits and allowances	35.9	36.6	37.6	38.1	38.9	40.0
Other outlays	3.7	3.4	3.4	3.1	3.3	3.4
<b>Total expenditure</b>	<b>43.3</b>	<b>43.6</b>	<b>44.5</b>	<b>44.9</b>	<b>46.1</b>	<b>47.3</b>
<b>Net lending (+) / net borrowing (-)</b>	<b>1.9</b>	<b>2.9</b>	<b>2.8</b>	<b>3.0</b>	<b>2.4</b>	<b>2.9</b>
Earnings-related pension schemes	2.7	2.4	2.0	2.1	2.1	2.3
Other social security funds	-0.8	0.5	0.8	0.9	0.3	0.6
Primary balance <sup>2</sup>	0.5	1.6	1.6	1.8	1.1	1.4

1) As calculated in National Accounts

2) Net lending before net interest expenses

## 2.5.2 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 surplus of other social security funds strengthened last year to 0.3% of GDP. This is on the back of a one-percentage point increase in the unemployment insurance contribution from the beginning of 2016 and a clear downturn in unemployment security expenditure growth as the unemployment situation has improved.

The surplus of other social security funds is expected to contract gradually during the outlook period. Improving employment reduces unemployment costs. Expenditure growth will be slowed at the beginning of the outlook period also by savings measures decided by the Government. For example, with the exception of basic social assistance, benefits and allowances linked to the National Pensions Index

will not be raised in 2018 or 2019. The rapid growth of the sum of wages and salaries will increase the amount of social security contributions received. On the other hand, the decrease in unemployment insurance and health insurance contributions at the beginning of 2018 will reduce revenues. As proposed by the Unemployment Insurance Fund, the unemployment insurance contribution will be reduced at the beginning of 2019 by 0.8 percentage points because the good cyclical situation has turned the Fund's finances into a clear surplus. In the light of the forecast, the Unemployment Insurance Fund's business cycle buffer is set to accrue funds to the extent that, under current legislation, the unemployment insurance contribution would need to be further reduced starting from 2021 at the latest. Accordingly, it has been assumed that the unemployment insurance contribution would be reduced by a further 0.4 percentage points as of 2021. For reasons of caution, the size of the contribution cut has been assessed in a manner whereby the business cycle buffer would be filled by 2022, even if the reduction was implemented already from 2020 onwards and the reduction in unemployment expenditure was more moderate than anticipated.

**Table 28. Social security contributions rates and pension indices**

	2015	2016	2017	2018	2019**	2020**
<b>Social insurance contributions<sup>1</sup></b>						
<b>Employers</b>						
Sickness insurance	2.08	2.12	1.08	0.86	0.77	1.32
Unemployment insurance	2.33	2.85	2.41	1.91	1.50	1.50
Earnings-related pension insurance	18.00	18.00	17.95	17.75	17.35	16.95
Local government pension insurance	23.65	23.21	21.95	21.60	21.20	20.80
<b>Employees</b>						
Sickness insurance	2.10	2.12	1.58	1.53	1.54	1.74
Unemployment insurance	0.65	1.15	1.60	1.90	1.50	1.50
Earnings-related pension insurance	6.00	6.00	6.45	6.65	7.05	7.45
<b>Benefit recipients</b>						
Sickness insurance	1.49	1.47	1.45	1.53	1.61	1.55
<b>Pension indices</b>						
Earnings-related index (over 65)	2519	2519	2534	2548	2582	2624
<b>National pension index</b>	1637	1631	1617	1617	1617	1640

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.

## 2.6 Long-term sustainability of public finances

Even though general government finances are forecast to stabilise with the debt ratio continuing to decline, ageing population will create pressure on the sustainability of general government finances in the longer term. This change is increasing pension, health care and long-term care expenditure to a degree that can no longer be sustained under the current total tax ratio. In addition, the working-age population, whose taxes finance wellbeing services and social security, is becoming smaller. In Finland, population ageing is manifesting earlier than in many other EU countries.

The sustainability gap in general government finances means that, in the long term, general government revenue will be insufficient to cover expenditure. A permanent imbalance between revenue and expenditure creates a risk of public debt spiralling out of control in the long term. Technically, the sustainability gap can be expressed as the difference between the level of surplus required for sustainable general government finances and the structural deficit in general government finances in the base year, which is currently 2022 (see figure below). The surplus safeguarding sustainability means that the general government structural surplus should be around 2½% of GDP in the early 2020s for general government finances to manage the expenditure pressures arising from population ageing in the coming decades without additional measures. Instead of a surplus of 2½%, general government is projected to post a deficit of around ½% of GDP in 2022.

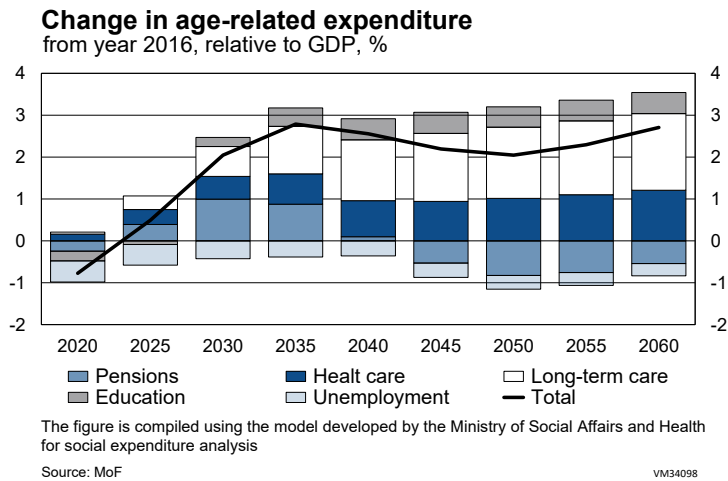
The Ministry of Finance assessment of the long-term sustainability of general government finances is based on EU harmonised methods and calculation rules. The sustainability calculation is effectively a pressure projection in which developments under current legislation and practices are projected to the future with the help of the population projection, spending breakdowns by age groups, and assessments of long-term economic development. The calculation principles are described in greater detail in the methodological description for sustainability gap calculations of the Ministry of Finance.<sup>1</sup>

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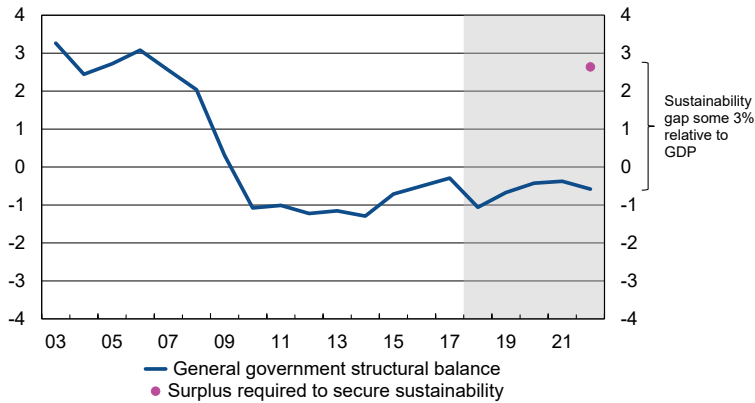
1 <https://vm.fi/en/descriptions-of-methods>

The Ministry of Finance estimates the sustainability gap at some 3% of GDP. The worsened assessment of the state of general government finances in the medium term has increased the sustainability gap estimate by around ½ percentage points compared with this spring. The sustainability gap calculation does not yet take into account the long-term measures, such as the health and social services reform, outlined in the Government Programme to strengthen general government finances. When interpreting the current sustainability gap estimate, it should be remembered that Statistics Finland will publish the new population projection in November 2018 and taking that projection into account may have a significant impact on the size of the sustainability gap estimate by the Ministry of Finance.

The sustainability gap estimate involves major uncertainty and is sensitive to underlying assumptions concerning future development. Therefore the following table examines the sensitivity of the sustainability gap calculation to the main economic assumptions. Despite this uncertainty, the calculation provides a consistent way of analysing and overcoming the future challenges for general government finances.



**MoF's sustainability gap estimate**  
relative to GDP, %



Sources: Statistics Finland, MoF

VM34098

**Table 29. Impact of various factors on the sustainability gap**

	Baseline scenario (autumn 2018)	Change, pp.	Impact on sustainability gap <sup>1</sup> , pp.
Growth in general productivity (and real earnings)	on average 1.4%	+0.5	-0,3
Employment rate	will reach 72.0% by 2060	+1.0	-0,4
Growth of productivity of public health and social services	0%	+0.5	-1,2
General government structural primary balance <sup>2</sup> / GDP in 2022	+0.3%	+1.0	-1,0
Real interest rate on general government debt	in the long term 3%	-1.0	less than -0.2
Real rate of return on investments and real interest rate on general government debt	in the long term 3.5% and 3.0%	-1.0	+0.7

1) The calculations are based on autumn 2016 MoF sustainability gap calculations (impact of assumption changes are stable over different calculation rounds)

2) Deficit excl. interest expenditure



## **Supplementary statistics**

- 1. Evolution of forecasts over time**
- 2. Outturn data and forecasts used in budget process for 2013–2017**
- 3. National balance of supply and demand, EUR million**
- 4. Financial balance of the Finnish economy**

**Table 1. Evolution of forecasts over time<sup>1</sup>**

	2017				2018**				2019**				2020**			
	spring	summer	autumn	winter	spring	summer	autumn	winter	spring	summer	autumn	winter	spring	summer	autumn	winter
GDP at market prices, change in volume, %	2.6	2.7	2.8	3.1	2.6	2.9	3	2.4	2.2	1.8	1.7	1.9	1.8	1.7	1.6	
Consumption, change in volume, %	1.5	1.6	0.8	1.3	1.4	1.6	1.6	1.3	1.2	1.2	1.3	0.9	1.3	1.2	1.1	
Exports, change in volume, %	7.8	7.8	7.5	6.8	6.1	4.9	4.9	4.5	4.8	4	3.9	4.5	3.5	3.2	3.2	
Unemployment rate, %	8.6	8.6	8.6	8.6	8.1	8	7.4	8.1	7.5	7.5	6.9	7.7	7	7	6.6	
Consumer price index, change, %	0.7	0.7	0.7	0.8	1.2	1.1	1.1	1.4	1.4	1.4	1.4	1.5	1.7	1.6	1.6	
Central government net lending, relative to GDP, %	-1.7	-1.7	-1.8	-2.3	-1.6	-1.7	-1.5	-2.1	-0.9	-0.9	-0.7	-1.4	-0.4	-0.6	-0.7	
General government net lending, relative to GDP, %	-0.6	-0.6	-0.7	-1.2	-0.6	-0.7	-0.7	-1.3	-0.2	-0.3	-0.1	-0.8	0.1	-0.1	0.2	
Central government debt, relative to GDP, %	47.3	47.2	47.3	47.1	46.9	46.3	46	46.7	45.6	45.8	45.3	46	44.4	45	44.3	

1) Economic Survey / release date

Sources: Statistics Finland, MoF

**Table 2. Outturn data and forecasts used in budget process for 2013–2017**

			Average forecast errors		
	Forecast averages, % ch.	Outcome averages, % ch.	Forecast under-/over-estimation <sup>1</sup> , pp.	Magnitude of forecast error <sup>2</sup> , pp.	
GDP (volume)		1.3	0.7	0.6	1.5
GDP (value)		3.0	2.1	0.9	1.5
Private consumption (value)		2.5	2.2	0.3	0.9
Current account, % of GDP		-0.6	-0.5	-0.1	0.7
Inflation		1.8	0.7	1.1	1.1
Wage bill		1.9	1.1	0.8	1.3
Unemployment rate		8.5	8.7	-0.2	0.5
Central government debt, % of GDP		48.9	46.7	2.2	2.2
Central government net lending, % of GDP		-2.8	-3.0	0.2	0.7
General government net lending, % of GDP		-2.0	-2.2	0.1	1.3

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					
	2015	2016	2017	2018**	2019**	2020**
GDP at market prices	209 604	216 111	223 843	234 243	242 405	251 027
Imports of goods and services	77 482	79 785	85 446	91 027	96 083	100 587
<b>Total supply</b>	<b>287 086</b>	<b>295 896</b>	<b>309 289</b>	<b>325 270</b>	<b>338 488</b>	<b>351 614</b>
Exports of goods and services	76 493	77 814	86 250	92 624	98 058	102 660
Consumption	167 057	170 567	173 107	178 329	183 862	189 773
private	115 916	119 005	121 874	125 897	129 846	133 872
public	51 141	51 562	51 233	52 432	54 015	55 901
Investment	42 713	46 844	49 578	52 833	54 646	56 695
private	34 562	37 994	40 437	43 319	45 355	47 225
public	8 151	8 850	9 141	9 514	9 291	9 470
<b>Total demand</b>	<b>287 403</b>	<b>296 036</b>	<b>310 004</b>	<b>325 985</b>	<b>339 203</b>	<b>352 329</b>
	At reference year 2010 prices; not additive					
	2015	2016	2017	2018**	2019**	2020**
GDP at market prices	186 804	191 432	196 787	202 775	206 142	209 392
Imports of goods and services	77 212	81 513	84 371	87 305	89 960	92 245
<b>Total supply</b>	<b>264 016</b>	<b>272 945</b>	<b>281 158</b>	<b>290 080</b>	<b>296 103</b>	<b>301 636</b>
Exports of goods and services	74 178	77 107	82 875	86 931	90 291	93 145
Consumption	150 137	152 996	154 161	156 696	158 687	160 499
private	104 910	106 963	108 367	110 638	112 422	113 969
public	45 232	46 041	45 804	46 065	46 273	46 540
Investment	38 966	42 286	43 995	45 809	46 512	47 416
private	31 565	34 300	35 863	37 518	38 585	39 499
public	7 398	7 983	8 129	8 287	7 920	7 911
<b>Total demand</b>	<b>264 382</b>	<b>273 136</b>	<b>281 668</b>	<b>290 402</b>	<b>296 182</b>	<b>301 500</b>

**Table 4. Financial balance of the Finnish economy**

	2013	2014	2015	2016	2017
	relative to GDP, %				
<b>Gross investment</b>	<b>21.2</b>	<b>20.6</b>	<b>20.4</b>	<b>21.7</b>	<b>22.1</b>
households and non-profit institutions	6.2	5.9	5.7	6.3	6.5
non-financial corporations and financial and insurance corporations	10.8	10.5	10.8	11.3	11.5
general government	4.2	4.2	3.9	4.1	4.1
<b>Gross saving<sup>1</sup></b>	<b>19.7</b>	<b>19.7</b>	<b>20.0</b>	<b>21.4</b>	<b>23.0</b>
households and non-profit institutions	5.0	4.2	3.9	3.4	3.0
non-financial corporations and financial and insurance corporations	13.2	14.5	15.1	15.8	16.7
general government	1.5	1.0	1.1	2.2	3.3
<b>Financial surplus</b>	<b>-1.8</b>	<b>-1.2</b>	<b>-0.7</b>	<b>-0.6</b>	<b>0.7</b>
households and non-profit institutions	-1.5	-1.9	-2.0	-3.2	-3.8
non-financial corporations and financial and insurance corporations	2.3	3.9	3.9	4.2	4.8
general government	-2.6	-3.2	-2.8	-1.7	-0.7
Statistical discrepancy	0.0	0.0	-0.2	-0.1	-0.5

1) Incl. capital transfers (net)



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