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| <p><b>Abstract</b></p> <p>Finland's economic growth will continue at an annual rate exceeding 2% but slow to a rate of below 1½% over the medium term.</p> <p>The rapid economic recovery and sustained strength of economic growth will increase demand for labour and employment growth will be faster than seen in many years. The employment rate will climb to 72.5% in 2020. However, improvement in the unemployment situation will remain slow despite the increase in job vacancies.</p> <p>Finnish GDP is expected to grow by 2.6% in 2018. The growth in private consumption will accelerate as a result of the rise in employment in 2018. Export growth will slow but still outperform the growth in world trade.</p> <p>In 2019, economic growth is expected to slow to 2.2%. Accelerating inflation will decelerate the growth in real household disposable income and consumption. Strong growth in world trade will improve Finnish export prospects over the outlook period.</p> <p>In 2020, GDP will grow by 1.8%. Growth in private consumption will decelerate further, despite the sum of wages and salaries rising due to the accelerating growth of the earnings level. Export growth will continue to be driven by goods exports.</p> <p>The annual growth in private investments will average 3½–4%, but this growth will continue at a slower pace than in recent years.</p> <p>The earnings level will increase by 1.9% in 2018. Wage drifts are forecast to remain below average because of local settlements and company-specific items. The increase in the earnings level will accelerate in 2019 to 2.5% due to timing factors relating to collectively agreed pay rises. In 2020, the rise in the earnings level will accelerate to 2.8%.</p> <p>General government deficits will decrease, and general government finances will reach a surplus at the turn of the decade. Despite good economic growth, general government debt will continue to increase when entering the 2020s.</p> |   |                   |           |
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| <b>Asiasanat</b>   | Julkinen talous, taloudellinen kehitys   |                 |           |
| <b>Tiivistelmä</b> <p>Suomen talouden kasvu jatkuu yli kahden prosentin vuosivauhdilla tulevina vuosina, mutta hidastuu alle 1½ prosenttiin keskipitkällä aikavälillä.</p> <p>Talouden nopea toipuminen ja vahvana jatkuva talouskasvu nostavat työvoiman kysyntää ja työllisyyden kasvu tulee olemaan nopeinta vuosiin. Työllisyysaste tulee nousemaan jo 72,5 prosenttiin v. 2020. Työttömyyden paraneminen jää kuitenkin hitaaksi avoimena olevien työpaikkojen kasvusta huolimatta.</p> <p>Vuonna 2018 Suomen BKT:n ennustetaan kasvavan 2,6 %. Vuonna 2018 yksityisen kulutuksen kasvu kiihtyy työllisyyden nousun seurauksena. Viennin kasvu hidastuu, mutta kasvu on kuitenkin maailmankaupan kasvua nopeampaa.</p> <p>Vuonna 2019 talouskasvu hidastuu 2,2 prosenttiin. Inflaation kiihtyminen hidastaa kotitalouksien reaalisten käytettävissä olevien tulojen sekä kulutuksen kasvua. Maailmankaupan vahva kasvu luo ennustejaksolla paremmat näkömät Suomen viennille.</p> <p>Vuonna 2020 BKT kasvaa 1,8 %. Yksityisen kulutuksen kasvu hidastuu edelleen, vaikka palkkasumman kasvu jatkuu ansiotason kasvun kiihtyessä. Viennin kasvu on jatkossakin tavaravetoista.</p> <p>Yksityiset investoinnit kasvavat ennustejaksolla keskimäärin 3½-4 % vuodessa, mutta niiden kasvu jatkuu viime vuosia hitaampana.</p> <p>Vuonna 2018 ansiotaso nousee 1,9 %. Palkkaliukumien on ennakoitu jäävän keskimääräistä pienemmiksi paikallisen sopimisen ja yrityskohtaisten erien vuoksi. Ansiotason nousu kiihtyy v. 2019 2,5 prosenttiin sopimuskorotusten ajoitustekijöiden seurauksena. Vuonna 2020 ansiotason nousu kiihtyy 2,8 prosenttiin.</p> <p>Julkinen talouden alijäämät pienenevät ja julkinen talous kääntyy vuosikymmenen vaihteessa ylijäämäiseksi. Julkisen talouden velkaantumisen jatkuu silti hyvästä talouskasvusta huolimatta edelleen 2020-luvulle tultaessa.</p> |  |                 |           |
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| <b>Sidantal</b>                            |   | <b>Språk</b>    | Engelska  |
| <b>Nyckelord</b>                           | Offentlig ekonomi, ekonomisk utveckling   |                 |           |
| <b>Referat</b>                             | <p>Den finländska ekonomins tillväxt fortsätter i en takt på mer än 2 procent per år under de kommande åren, men avtar på medellång sikt till under 1½ procent.</p> <p>Den snabba återhämtningen i ekonomin och den fortsatt starka ekonomiska tillväxten leder till att efterfrågan på arbetskraft ökar, och ökningen av sysselsättningen kommer att vara den snabbaste på många år. Sysselsättningsgraden kommer att stiga till 72,5 procent år 2020. Arbetslösheten lindras dock långsamt trots det ökade antalet lediga arbetsplatser.</p> <p>Det förutspås att Finlands BNP kommer att växa med 2,6 procent 2018. År 2018 fortsätter den privata konsumtionen att öka tack vare den förbättrade sysselsättningen. Tillväxten inom exporten avtar, men är dock snabbare än tillväxten inom världshandeln.</p> <p>År 2019 avtar den ekonomiska tillväxten till 2,2 procent. Den tilltagande inflationen bromsar tillväxten i hushållens disponibla realinkomster och konsumtionen. Den starka tillväxten inom världshandeln skapar under prognosperioden bättre utsikter för Finlands export.</p> <p>År 2020 ökar BNP med 1,8 procent. Tillväxten i den privata konsumtionen avtar ytterligare, trots att ökningen av lönebeloppet fortsätter i takt med att inkomstnivån höjs. Tillväxten inom exporten beror fortsättningsvis i hög grad på varuexporten.</p> <p>De privata investeringarna ökar under prognosperioden med i genomsnitt 3½-4 procent per år, men tillväxten är långsammare än under de senaste åren.</p> <p>År 2018 stiger inkomstnivån med 1,9 procent. Löneglidningen förutspås bli lägre än i genomsnitt tack vare lokala avtal och företags specifika pottor. Höjningen av inkomstnivån tilltar 2019 till 2,5 procent som en följd av de avtalsenliga höjningar som infaller under året. År 2020 tilltar höjningen av inkomstnivån till 2,8 procent.</p> <p>Underskottet i de offentliga finanserna minskar och den offentliga ekonomin börjar uppvisa ett över-skott vid decennieskiftet. Trots den goda ekonomiska tillväxten fortsätter skuldsättningen inom de offentliga finanserna vid övergången till 2020-talet.</p> |                 |           |
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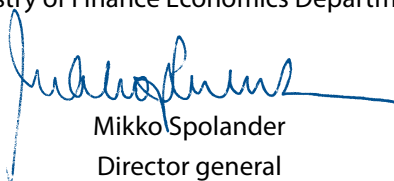
## PREFACE

This Economic Survey offers projections of economic developments in 2018–2020. The forecast and trend projections in the survey are prepared independently by the Ministry of Finance Economics Department based on the Act on the implementation of the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union and on multi-annual budgetary frameworks (869/2012).


The forecasts are based on national accounts data for 2017 published by Statistics Finland in March 2018 and on other public statistical sources available by 12 April 2018. Both the short-term and medium-term projections take account of the decisions taken by the Government in its spending limits discussions on 11 April 2018.

Helsinki April 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.....                               | 26 |
| 1.2.1 Exports and imports.....                       | 26 |
| 1.2.2 Prices and current account .....               | 27 |
| 1.3 Domestic demand.....                             | 29 |
| 1.3.1 Private consumption .....                      | 29 |
| 1.3.2 Public consumption.....                        | 31 |
| 1.3.3 Private investment.....                        | 33 |
| 1.3.4 Public investment .....                        | 36 |
| 1.4 Domestic production.....                         | 37 |
| 1.4.1 Total output.....                              | 37 |
| 1.4.2 Secondary production.....                      | 39 |
| 1.4.3 Services .....                                 | 42 |
| 1.5 Labour force .....                               | 44 |
| 1.6 Incomes, costs and prices.....                   | 47 |
| 1.6.1 Wages and salaries .....                       | 47 |
| 1.6.2 Consumer prices .....                          | 48 |
| <b>2 Public finances</b> .....                       | 51 |
| 2.1 General government finances.....                 | 51 |
| 2.1.1 Estimates of fiscal policy impact .....        | 60 |
| 2.1.2 General government debt.....                   | 61 |
| 2.2 Central government.....                          | 65 |
| 2.2.1 Central government expenditure .....           | 67 |
| 2.2.2 Central government revenues.....               | 74 |
| 2.2.3 On-budget accounts and national accounts ..... | 79 |
| 2.3 County finances.....                             | 81 |
| 2.4 Local government.....                            | 83 |
| 2.5 Social security funds.....                       | 89 |

|  |    |
|--|----|
| 2.5.1 Earnings-related pension funds.....            | 89 |
| 2.5.2 Other social security funds.....               | 91 |
| 2.6 Long-term sustainability of public finances..... | 93 |

|                       |    |
|-----------------------|----|
| <b>Appendix</b> ..... | 97 |
|-----------------------|----|

**Boxes:**

|   |    |
|---|----|
| Impact of employment and productivity growth on<br>general government finances..... | 56 |
| Economic growth reduces the debt ratio of general government.....                   | 63 |
| Spending limits maintained despite the spending pressures.....                      | 69 |
| Central government on-budget accounts and expenditure in 2019-2022.....             | 71 |

# Summary

## **Economic outlook for 2018-2020**

Finland's economic growth will continue at an annual rate exceeding 2% but slow to a rate of below 1½% over the medium term. The rapid economic recovery and sustained strength of economic growth will increase demand for labour and employment growth will be faster than for years. The employment rate will climb to 72.5% in 2020. Although the number of job vacancies will increase, the unemployment rate will fall slowly.

Economic growth will be supported by both domestic demand and foreign trade. Household demand will be subdued by slowing growth in real disposable income. Although private investment growth will be slower than in 2017, the ratio of investment to GDP will rise to 20%. Growth in exports will level off in line with the trends in world trade and economic growth will no longer be as strongly supported by net exports as earlier.

General government deficits will decrease, and general government finances will reach a surplus at the turn of the decade. Nevertheless, general government indebtedness will continue despite good economic growth when entering the 2020s.

## **Global economy growth continues**

Global economic growth will accelerate further in 2018 and then continue at a slower pace. Growth in the United States in particular will be rapid this year. The recently adopted tax reform is anticipated to boost the already high rate of economic growth, but at the same time it will have an adverse effect on the state of public finances. Strong growth in the euro area is continuing, economic confidence remains high and investments are now almost at the same level as before the crisis. Despite

continued low inflation expectations, inflation is expected to accelerate towards the end of the outlook period.

Growth in world trade slowed in the second half of last year. During the outlook period, growth will, above all, be maintained by import demand in emerging economies. World trade will again grow faster than global output but not so much faster as was seen last decade.

### **Employment growth has exceeded expectations**

Finnish GDP is expected to grow by 2.6% in 2018. The signals still point towards continued economic growth. These signals include increases in new orders in manufacturing and in business output expectations as well as a continuing construction boom in growth centres. On the other hand, there are also signs of constraints on growth as many workplaces are facing a shortage of skilled labour, and lack of demand is more common in many private business sectors than in late 2017.

The broad-based and rapid strengthening of economic activity increased employment during 2017. The upward trend in employment gained strength exceptionally rapidly both before and after the turn of the year, with the employment rate trend having already risen to around 71%.

Demand for labour is increasing swiftly. According to the European Commission's confidence indicators, Finnish enterprises' employment expectations are at their highest since 2011. The job vacancy rate in Finland is, however, only at the medium level among EU Member States.

With strong economic growth continuing and demand for labour gaining strength, the number of employed persons in 2018 will be 1.8% higher than in 2017. Employment growth will remain rapid throughout the outlook period and the employment rate will rise to 72.5% in 2020.

The slow fall in the unemployment rate is at least in part due to the activation of the disguised unemployed and other persons outside the labour force to become jobseekers, which is normal in the context of an economic upswing. Although the reduction in unemployment has been uneven, the combined number of the unemployed and the disguised unemployed has decreased quite steadily since early

2016. The unemployment rate will fall steadily over the outlook period and end up at 7.0% in 2020.

In 2018, the growth in private consumption will accelerate as a result of the rise in employment and in the earnings level. The increase in household disposable income will accelerate clearly, but real income growth will be more moderate as inflation picks up.

Faster economic growth, brisker exports, low interest rates and positive trends in the global economy will support private investment growth in Finland. Rapid growth in housing construction is continuing.

Export growth will remain more moderate than last year but will still outperform world trade growth. Transport equipment export growth is anticipated to continue in 2018. The current account has reached a surplus driven by the trade balance, but the balance of services will remain in deficit. The current account will show a slight surplus throughout the outlook period, primarily due to favourable export development. On the other hand, the current account surplus will be reduced by a stronger increase in export prices than in import prices and by a deficit in factor incomes and income transfers.

Prices will rise in 2018 across a broad range of product categories, but the increases in the prices of services will have the greatest impact on overall inflation. This year, price increases will be fuelled by, for example, the price of crude oil, which is at a higher level than last year, and by increases in the prices of processed foods. Indirect tax hikes will accelerate inflation by as much as 0.4 percentage points.

The earnings level will rise by 1.9% in 2018. Wage drifts are expected to remain below average as local settlements become more common and because of company-specific items. The increase in the earnings level will accelerate in 2019 to 2.5% due to timing factors relating to collectively agreed pay rises. In 2020, the rise of the earnings level to 2.8% will be accelerated further by good economic growth and the reintroduction of holiday bonuses in the public sector.

In 2019, economic growth is expected to slow to 2.2%. Accelerating inflation will decelerate the growth in real household disposable income. The slowdown in private consumption growth will improve the household savings rate.

Strong world trade growth will support Finnish exports during the outlook period and Finland will not lose market shares in 2019. Net exports will support growth throughout the outlook period even though imports of production inputs will also increase. Imports will be boosted not only by the demand for production inputs but also by domestic demand for investment and consumption demand.

In 2020, Finnish GDP is expected to grow by 1.8%. 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 rising, real income growth will slow, however.

On the other hand, export growth will already underperform world trade growth in 2020. The goods to services ratio is expected to remain almost unchanged, which means that exports will continue to be driven by exports of goods.

The annual growth in private investments will average 3½–4% but this growth will continue at a slower pace than in recent years. Nonetheless, private investments will rise to around 20% in ratio to GDP towards the end of the outlook period and at that point already clearly exceed the cyclical peak seen in the second quarter of 2008.

### **General government finances gaining strength but sustainability gap persists**

Economic growth and the improving employment situation strengthen general government finances in the next few years. Measures to control growth in expenditure and boost public service provision will improve the state of general government finances. At the turn of the decade, balance will be restored and a slight surplus reached in general government finances after more than ten years of imbalance. Central government expenditure will still be clearly higher than income this year, but the imbalance in central government finances is also being gradually reduced.

GDP growth and consolidation measures will reduce the public debt to GDP ratio. General government debt continues to increase in the early years of the 2020s.

The long-term challenges of general government finances have not changed substantially. Following cyclical stabilisation, economic growth will slow clearly and will not be sufficient to cover the rapid increase in public expenditure caused by changes in the population age structure. Population ageing will increase care and nurs-

ing expenditure and have a negative effect on general government finances until the 2030s if expenditure growth cannot be curbed through structural reforms. The fighter aircraft acquisitions of the Defence Forces will also add to the central government deficit in the 2020s.

### **Risks inherent in economic development**

Most of the risks in the global economy forecast are still somewhat skewed to the downside. Worsening trade disputes may hamper world trade growth.

The implementation of United States tariffs on steel and aluminium imports may result in trade policy countermeasures elsewhere. Introduction of trade barriers in a specific context will result in countermeasures that will be reflected over a broader area.

A particular positive risk perceived is economic development in the euro area exceeding expectations. This would improve Finland's export prospects. The rate of growth may also turn out to be higher than forecast in emerging economies. Indeed, diversification of the geographical distribution of exports is one of the positive risks. In addition, continued favourable development in service exports may increase the value-added from exports.

The risks in the investment forecast are, on the one hand, related to potential corrective movements in the financial and capital markets and any resulting increases in general uncertainty and, on the other hand, to faster-than-forecast international economic growth. In addition, the implementation of major projects according to the planned schedule is uncertain due to various authorisation processes and mobilisation of financing.

Private consumption growth based on a low level of household saving creates a negative risk in the consumption forecast. Private consumption growth based on consumer confidence is highly sensitive to negative news.

Positive risks are associated with the employment outlook. Among others, decisions made in the government negotiations on general government fiscal plan might have employment growth enhancing impact.

**Table 1. Key forecast figures**

|                      | 2017   | 2015                | 2016 | 2017 | 2018** | 2019** | 2020** |
|----------------------|--------|---------------------|------|------|--------|--------|--------|
|                      | EUR bn | change in volume, % |      |      |        |        |        |
| GDP at market prices | 224    | 0.1                 | 2.1  | 2.6  | 2.6    | 2.2    | 1.8    |
| Imports              | 85     | 3.2                 | 5.7  | 3.5  | 4.3    | 3.9    | 3.0    |
| Total supply         | 309    | 1.0                 | 3.1  | 2.9  | 3.1    | 2.7    | 2.2    |
| Exports              | 86     | 0.9                 | 3.5  | 7.8  | 6.1    | 4.8    | 3.5    |
| Consumption          | 174    | 1.3                 | 1.8  | 1.5  | 1.4    | 1.2    | 1.3    |
| private              | 122    | 1.7                 | 1.8  | 1.6  | 1.8    | 1.5    | 1.4    |
| public               | 52     | 0.2                 | 1.8  | 1.3  | 0.5    | 0.5    | 0.9    |
| Investment           | 51     | 0.7                 | 7.4  | 6.3  | 3.6    | 3.8    | 2.9    |
| private              | 42     | 2.2                 | 7.8  | 8.4  | 3.7    | 3.9    | 3.6    |
| public               | 9      | -5.2                | 5.8  | -2.9 | 3.2    | 3.1    | -0.7   |
| Total demand         | 311    | 1.2                 | 2.9  | 3.6  | 3.3    | 2.9    | 2.4    |
| domestic demand      | 225    | 1.3                 | 2.7  | 2.1  | 2.3    | 2.1    | 1.9    |

**Table 2. Other key forecast figures**

|  | 2015 | 2016 | 2017 | 2018** | 2019** | 2020** |
|--|------|------|------|--------|--------|--------|
| GDP, EUR bn  | 210  | 216  | 224  | 233    | 243    | 252    |
| Services, change in volume, %                      | 0.4  | 1.6  | 2.8  | 2.6    | 2.0    | 1.7    |
| Industry, change in volume, %                      | -1.7 | 1.2  | 3.9  | 3.2    | 3.2    | 2.3    |
| Labour productivity, change, %                     | 0.2  | 1.7  | 2.4  | 0.9    | 1.2    | 1.2    |
| Employed labour force, change, %                   | -0.4 | 0.5  | 1.0  | 1.8    | 1.0    | 0.7    |
| Employment rate, %                                 | 68.1 | 68.7 | 69.6 | 71.1   | 71.9   | 72.5   |
| Unemployment rate, %                               | 9.4  | 8.8  | 8.6  | 8.1    | 7.5    | 7.0    |
| Consumer price index, change, %                    | -0.2 | 0.4  | 0.7  | 1.2    | 1.4    | 1.7    |
| Index of wage and salary earnings, change, %       | 1.4  | 1.1  | 0.2  | 1.9    | 2.5    | 2.8    |
| Current account, EUR bn                            | -2.1 | -3.0 | 1.5  | 1.8    | 2.3    | 2.3    |
| Current account, relative to GDP, %                | -1.0 | -1.4 | 0.7  | 0.8    | 0.9    | 0.9    |
| Short-term interest rates (3-month Euribor), %     | -0.0 | -0.3 | -0.3 | -0.3   | 0.0    | 0.1    |
| Long-term interest rates (10-year govt. bonds), %  | 0.7  | 0.4  | 0.5  | 1.0    | 1.4    | 1.7    |
| General government expenditure, relative to GDP, % | 57.1 | 56.0 | 53.7 | 52.7   | 52.0   | 51.7   |
| Tax ratio, relative to GDP, %                      | 43.9 | 44.1 | 43.4 | 42.5   | 42.3   | 41.9   |
| General government net lending, relative to GDP, % | -2.8 | -1.8 | -0.6 | -0.6   | -0.2   | 0.1    |
| Central government net lending, relative to GDP, % | -3.0 | -2.7 | -1.7 | -1.6   | -0.9   | -0.4   |
| General government gross debt, relative to GDP, %  | 63.5 | 63.0 | 61.4 | 60.4   | 58.9   | 57.4   |
| Central government debt, relative to GDP, %        | 47.6 | 47.4 | 47.3 | 46.9   | 45.6   | 44.4   |



## Medium-term outlook

Finnish GDP growth accelerated to 2.6% last year. Economic growth is anticipated to remain almost at the same level, 2.6%, this year but slow to a more moderate level of around 2% in the 2019–2020 period. In the medium term from 2021 to 2022, economic growth is projected to return to the level of potential output growth, that is, just over 1%.<sup>1</sup> Historically, the growth anticipated over the medium term is slow, which is due to structural factors in the economy.

Labour input growth will increase potential output growth slightly during the current year and the next two years. After that, labour input growth will fall to below zero as the size of the working-age population contracts. Labour input growth is also determined by the structural unemployment rate.

Growth in total factor productivity has been modest in the past few years and will remain 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 medium term, total factor productivity trend growth is projected to approach 1%, whereas the average growth seen in the early 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 is dependent not only on total factor productivity and labour input, but also on the existing capital stock. For several years, low investment rate slowed capital stock growth and weakened future economic growth potential. Investment has, however, picked up and the rise in the investment rate will increase the level of potential output through capital stock growth by an annual rate of just over ½%. Overall, it is projected that the economy's growth potential will rise to just over 1% a year in the medium term.

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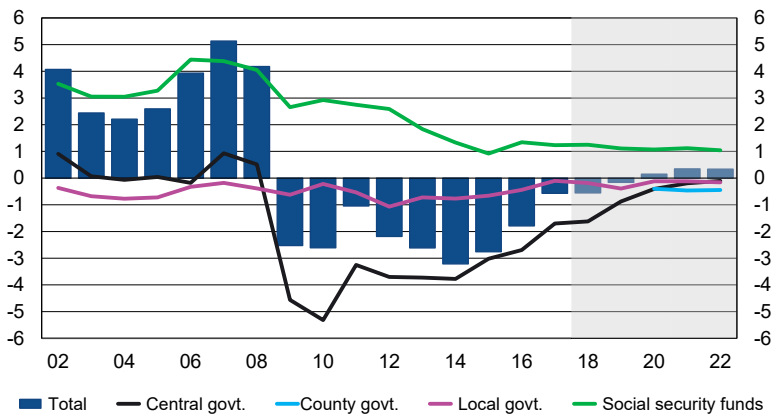
<sup>1</sup> The medium-term outlook can be examined on the basis of potential output, because this is thought to determine the economy's growth prospects. In its assessments of potential output, the Ministry of Finance uses the production function method as developed jointly by the European Commission 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. The output gap, i.e. the difference between total actual output and potential output, is positive when actual output is higher than potential output. This means that economic production capacity has been utilised and output growth exceeding potential output creates price pressures in the economy.

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

|  | 2016 | 2017 | 2018** | 2019** | 2020** | 2021** | 2022** |
|--|------|------|--------|--------|--------|--------|--------|
| GDP at market prices, change in volume, %          | 2.1  | 2.6  | 2.6    | 2.2    | 1.8    | 1.3    | 1.1    |
| Consumer price index, change, %                    | 0.4  | 0.7  | 1.2    | 1.4    | 1.7    | 1.8    | 2.0    |
| Unemployment rate, %                               | 8.8  | 8.6  | 8.1    | 7.5    | 7.0    | 6.9    | 6.8    |
| Employment rate, %                                 | 68.7 | 69.6 | 71.1   | 71.9   | 72.5   | 72.9   | 73.2   |
| General government net lending, relative to GDP, % |      |      |        |        |        |        |        |
| Central government                                 | -1.8 | -0.6 | -0.6   | -0.2   | 0.1    | 0.3    | 0.3    |
| County government                                  | -2.7 | -1.7 | -1.6   | -0.9   | -0.4   | -0.2   | -0.1   |
| Local government                                   |      |      |        |        | -0.4   | -0.5   | -0.4   |
| Social security funds                              | -0.4 | -0.1 | -0.2   | -0.4   | -0.1   | -0.1   | -0.2   |
| Social security funds                              | 1.3  | 1.2  | 1.2    | 1.1    | 1.1    | 1.1    | 1.0    |
| Structural balance, relative to GDP, %             | -0.5 | -0.1 | -0.5   | -0.6   | -0.3   | -0.1   | -0.1   |
| General government gross debt, relative to GDP, %  |      |      |        |        |        |        |        |
| Central government debt, relative to GDP, %        | 63.0 | 61.4 | 60.4   | 58.9   | 57.4   | 56.7   | 56.0   |
| Central government debt, relative to GDP, %        | 47.4 | 47.3 | 46.9   | 45.6   | 44.4   | 43.5   | 42.7   |
| Output gap, % of potential output <sup>1</sup>     | -2.3 | -0.9 | 0.1    | 0.5    | 0.7    | 0.7    | 0.7    |

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

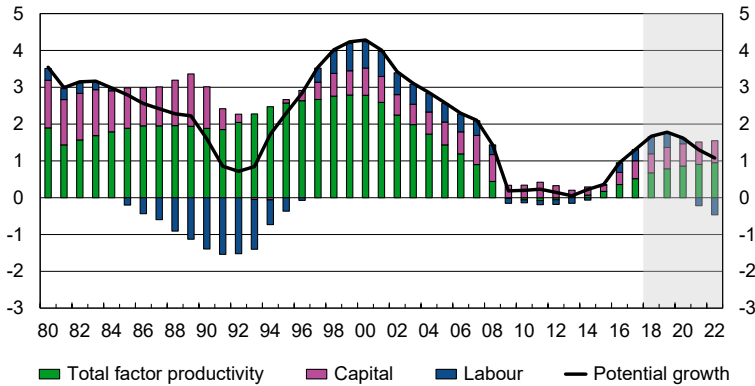
**The financial balance of general government relative to GDP, %**



Sources: Statistics Finland, MoF

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### Contributions to potential growth according to EU method, %



Sources: Statistics Finland, MoF

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### Fiscal Policy

The 2018 estimate is that the output gap will stand at +0.1% of potential output. When GDP growth clearly exceeds its potential, the output gap will end up being over +0.5% in 2019 and rise above that in the medium term. The output gap will close in the next period of economic decline.

Rapid economic growth has reduced the deficit in general government finances and lowered the debt-to-GDP ratio. Supported by economic growth, the general government budgetary position will improve further in the medium term, and the consolidation measures outlined by the Government will also slow expenditure growth. The debt ratio is, however, threatening to take an upturn, as in the long term general government revenue will no longer be enough to sustain all the structures and functions of the public sector that were created on the foundations of a more favourable demographic structure.

Two years of continuous upswing have greatly brightened the labour market in recent months. Business confidence is high and the demand for labour has increased rapidly. Employment is growing briskly and unemployment is falling.

Economic and employment growth are boosting general government finances. Economic growth is increasing tax revenues and reducing unemployment related expenditures. Decisions to curb growth in public spending are also improving cen-

tral and local government finances. General government finances are rebalancing over the next few years for the first time since the financial crisis that began in 2008.

Forecasts suggest that many of the economic policy goals set by the government of Prime Minister Juha Sipilä are materialising. The public debt to GDP ratio began declining in 2016 and the fall in debt ratio will continue until the early 2020s. The medium-term objective set for the structural balance of general government finances will also be achieved.

The government has also set nominal budgetary targets for central government, local government and social security funds. Social security funds and local government are achieving their assigned targets, but the central government fiscal deficit remains higher than targeted in 2019.

Besides levelling off the debt ratio, the government has set a target of ending living on debt by the year 2021. Despite brisk economic growth, this aim is not quite materialising. While general government finances will realise a small surplus at the end of the decade, this will depend on employment pension funds. General government debt will continue growing until the early 2020s.

The government has set a target of increasing the employment rate to 72 per cent and putting an additional 110,000 people into gainful employment during its term of office. These objectives appear to be materialising, as demand for labour is growing rapidly and both the number of people in work and the employment rate are rising to approach the target in 2019.

The most important and far-reaching goal of the government's economic policy, closing the sustainability gap, nevertheless remains unrealised. While the sustainability gap has declined during the government's term of office due to fiscal adjustment and rising employment, its closure will require implementation of further planned structural reforms.

The favourable economic climate is concealing structural factors that have undermined general government finances over the current decade. The population is ageing through the economic cycles, and growth in health care and long-term care costs due to the changing age structure will inevitably continue at a rapid rate long

into the 2030s if expenditure growth cannot be curbed by reforming the social and health care system.

There is a threat of economic growth slowing to a figure between 1 and 1½ per cent when the economic cycle levels out. Ageing of the population will mean no real increase in labour input, so economic growth will depend solely on increasing productivity. The foreseeable economic growth will not suffice to finance long-term provision of current statutory public benefits and services.

The labour markets also have some structural weaknesses that a favourable economic climate will not correct, despite rapidly growing employment. The employment rate remains clearly lower than in other Nordic countries. Many people are out of work, and a large proportion of the unemployed are hard to employ, even during an economic upswing. Though there are more job vacancies, some industries and sectors are suffering from a shortage of skilled labour.

This provides reasons for continuing an economic policy that seeks to improve conditions for growth and to reinforce general government finances. Conditions for economic restructuring are favourable when the economy is growing rapidly, as strong demand mitigates any short-term adverse impacts of reforms. The best way to mitigate these adverse impacts, even in the short term, is to plan the reforms consistently and implement them resolutely.

Economic policy during a boom period must focus on measures to boost employment, long-term growth potential in the economy, and efficiency in public service provision. Structural reforms that increase general government revenues and reduce expenditure or its long-term growth will still be needed to safeguard sustainable financing of public service provision and social security.

A new downturn is inevitable when the boom ends. Preparations for it can be made by allowing the boom to strengthen general government finances. Reinforcing the buffers of general government finances will be important not only because of future downturns, but also due to major defence procurements and because of the increase in age-related expenditure that will materialise over the coming decade.

# 1 Economic outlook

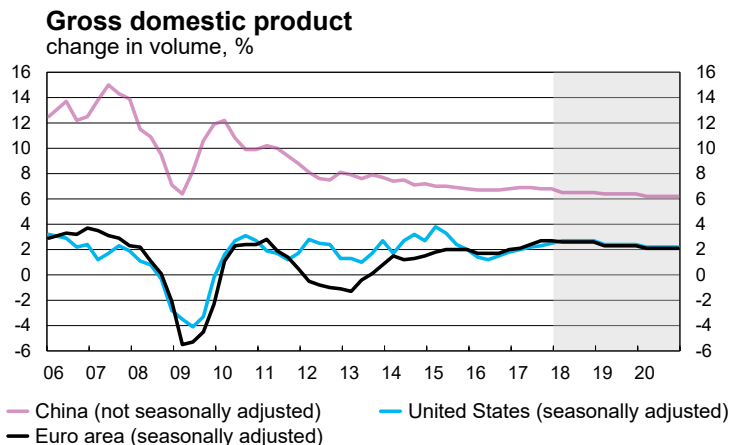
## 1.1 Global economy

### Rapid growth in global economy continues

The global economy is booming during the current year. Economic growth is broad-based: in several economies, both exports and domestic demand are showing robust performance.

The United States economy is growing rapidly this year. Inflation has accelerated since the second half of 2017 as the economy enjoys full employment. The recently adopted tax reform is anticipated to boost the already high rate of economic growth but at the same time projected to have an adverse effect on the state of public finances.

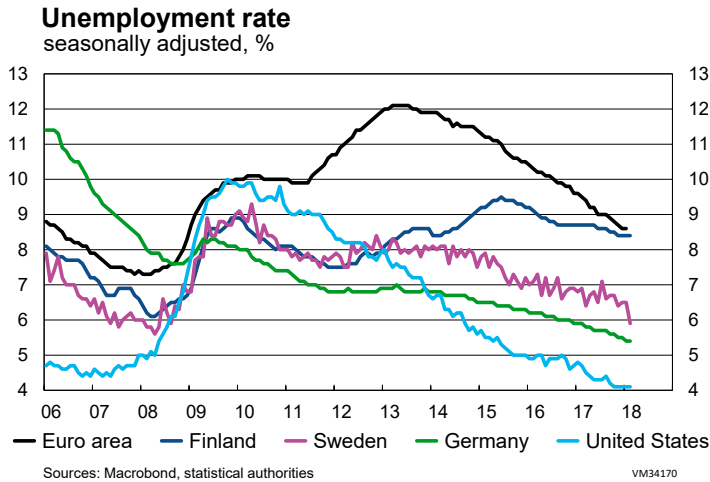
Strong growth in the euro area is continuing, economic confidence remains high and investments are now almost at the same level as before the crisis. Inflation expectations still remain low, but inflation is expected to accelerate towards the end of the outlook period.



Sources: Statistical authorities, MoF

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Supported by private consumption, rapid economic growth in China continued in 2017. The level of private debt is causing concern about the vulnerability of the financial market. In the longer term, economic growth in China is still expected to slow down and shift from exports to consumption.

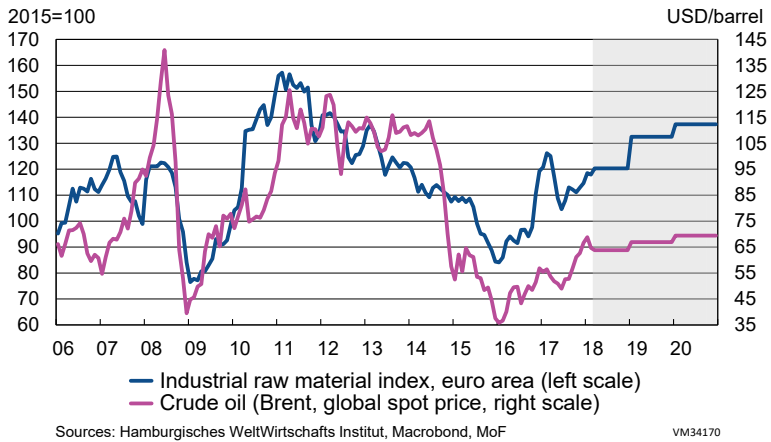


Russia’s economic growth slowed in late 2017 despite the increase in crude oil prices. The energy sector still plays a major role in the economy and, in the longer term, the prospects are overshadowed by a narrow production structure, and issues including structural problems in the labour market.

Favourable economic development has also pushed up prices of energy products and raw materials. The decisions of the main oil producing countries to limit production until the end of 2018 will help to keep crude oil prices steady.

Faster economic growth and gradual normalisation of the monetary policy will mean that the main market rates will rise in the next few years. Interest rates on government loans have gone up recently, particularly in the United States.

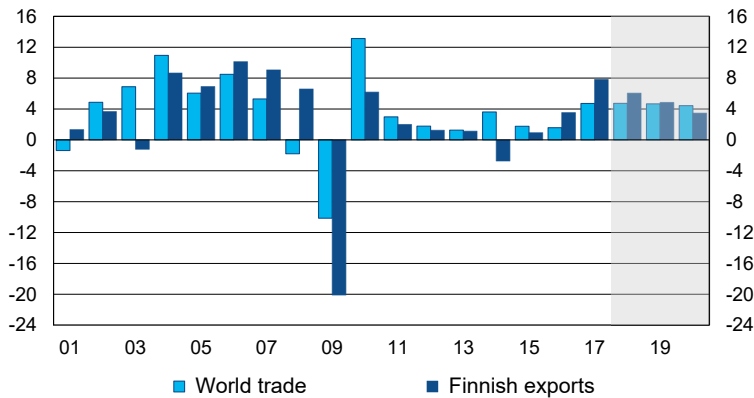
### Raw materials prices



### World trade has grown more rapidly than expected

World trade growth slowed in the second half of last year after a very rapid period of growth seen in 2016. Growth will, above all, be maintained by import demand in emerging economies. World trade will grow faster than global output when compared with the trends in the past few years. However, the gap is still narrower than during the first decade of the 2000s.

### World trade change in volume, %





## Risks are still skewed to the downside

The risks to the trends described above are still somewhat skewed to the downside. Worsening trade disputes may hamper world trade growth. Wide-ranging indebtedness raises the concern that expected rises in interest rates will add to the burden of debt servicing.

Faster-than-expected economic growth in industrial countries, especially in Europe, is probably the most important of the positive risks. World trade may also be set for faster-than-expected growth if living standards, and consequently consumer demand, in emerging economies grow even more rapidly than forecast.

**Table 4. Gross domestic product**

|                | 2015                | 2016 | 2017 | 2018** | 2019** | 2020** |
|----------------|---------------------|------|------|--------|--------|--------|
|                | change in volume, % |      |      |        |        |        |
| World (PPP)    | 3.3                 | 3.2  | 3.7  | 3.9    | 3.8    | 3.6    |
| Euro area      | 2.2                 | 1.8  | 2.3  | 2.6    | 2.3    | 2.1    |
| EU             | 1.6                 | 1.7  | 2.2  | 2.4    | 2.1    | 1.9    |
| Germany        | 1.5                 | 1.9  | 2.2  | 2.6    | 2.4    | 2.2    |
| France         | 1.2                 | 1.2  | 1.8  | 2.3    | 2.1    | 2.0    |
| Sweden         | 3.9                 | 3.3  | 2.7  | 2.8    | 2.4    | 2.2    |
| United Kingdom | 2.2                 | 1.8  | 1.8  | 1.4    | 1.0    | 0.8    |
| United States  | 2.6                 | 1.5  | 2.3  | 2.7    | 2.4    | 2.2    |
| Japan          | 1.1                 | 1.0  | 1.7  | 1.1    | 1.0    | 0.9    |
| China          | 6.9                 | 6.7  | 6.8  | 6.5    | 6.4    | 6.2    |
| India          |                     |      |      | 7.5    | 7.6    | 7.4    |
| Russia         | -3.7                | -0.2 | 1.7  | 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  | 4.7   | 4.7    | 4.7    | 4.4    |
| USD/EUR   | 1.10  | 1.10 | 1.15  | 1.15   | 1.08   | 1.07   |
| Industrial raw material price index, EA, € (2015=100) | 100.1 | 96.3 | 114.5 | 120.3  | 132.5  | 137.3  |
| Crude oil (Brent), \$/barrel                          | 53.5  | 45.1 | 54.8  | 63.8   | 66.9   | 69.4   |
| 3-month Euribor, %                                    | -0.0  | -0.3 | -0.3  | -0.3   | 0.0    | 0.1    |
| Government bonds (10-year), %                         | 0.7   | 0.4  | 0.5   | 1.0    | 1.4    | 1.7    |
| Export market share (2000=100) <sup>1</sup>           | 90.3  | 92.2 | 95.0  | 96.2   | 96.4   | 95.5   |
| Import prices, %                                      | -4.3  | -3.2 | 3.8   | 2.2    | 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 took a major upturn in 2017. This was affected by faster-than-projected growth in world trade. In most of Finland's most important export countries, economic development was more favourable than anticipated last year. During the outlook period, growth can still be seen in foreign trade, but export growth will be more moderate towards the end of the period.

### 1.2.1 Exports and imports

According to current information, the increase in export volumes was 7.8% in 2017. Growth took place steadily in goods as well as service exports. According to the latest figures, the volume growth in goods exports was 8.3% compared with the previous year and that in service exports was 6.9%. Service exports account for just under a third of the exports and are anticipated to grow at the same rate as goods exports.

Measured by the annual change, the growth in goods exports was the strongest in the first quarter of the year, but growth was also rapid during the remainder of the year. World trade has been growing faster than in the past few years and this has also helped to boost Finnish exports. Growth was seen in most traditional export sectors, including favourable development taking place in exports of machinery and equipment and forest industry exports increasing. Transport equipment exports grew significantly and this growth is anticipated to continue in 2018.

According to national accounts data, import volumes increased only by 3.5% in 2017. Goods import volumes were boosted particularly by intermediate and industrial products. As in exports, there was also a broad range of different items contributing to the growth in goods imports. Goods imports will also further pick up in the coming years due to imports of intermediate products used by export indus-

**Table 6. Foreign trade**

|                               | 2015                | 2016 | 2017 | 2018** | 2019** | 2020** |
|-------------------------------|---------------------|------|------|--------|--------|--------|
|                               | change in volume, % |      |      |        |        |        |
| Exports of goods and services | 0.9                 | 3.5  | 7.8  | 6.1    | 4.8    | 3.5    |
| Imports of goods and services | 3.2                 | 5.7  | 3.5  | 4.3    | 3.9    | 3.0    |
|                               | change in price, %  |      |      |        |        |        |
| Exports of goods and services | -0.9                | -1.8 | 2.9  | 1.8    | 1.9    | 1.5    |
| Imports of goods and services | -4.3                | -3.2 | 3.8  | 2.2    | 2.4    | 2.1    |

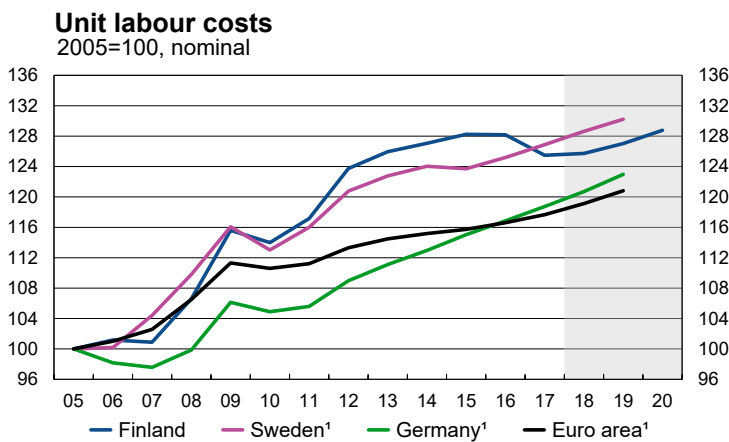
tries. Imports of consumer goods are growing steadily. Investments made indicate broad-based growth continuing in the manufacturing industry, whereby imports of intermediate products will also increase.

### 1.2.2 Prices and current account

In 2017, both import and export prices increased. The terms of trade weakened slightly as the increase in import prices exceeded that in export prices. The price increases are explained primarily by oil and raw material prices. Pricing of oil and raw materials will raise import prices during the outlook period, but in the coming years prices will increase at a moderate rate. The US dollar exchange rate is causing downward pressure on import prices at the beginning of the outlook period, but the appreciating exchange rate will push import prices up slightly towards the end of the period. Throughout the period, the value of imports and exports will rise thanks to volume growth and price hikes.

Movements in export prices will be slightly more modest than those in import prices. The terms of trade will continue to weaken during the outlook period as import prices will increase more rapidly than export prices. Export conditions will be further improved during the early parts of the outlook period by modest trends in unit labour costs despite wages and salaries already increasing in 2018.

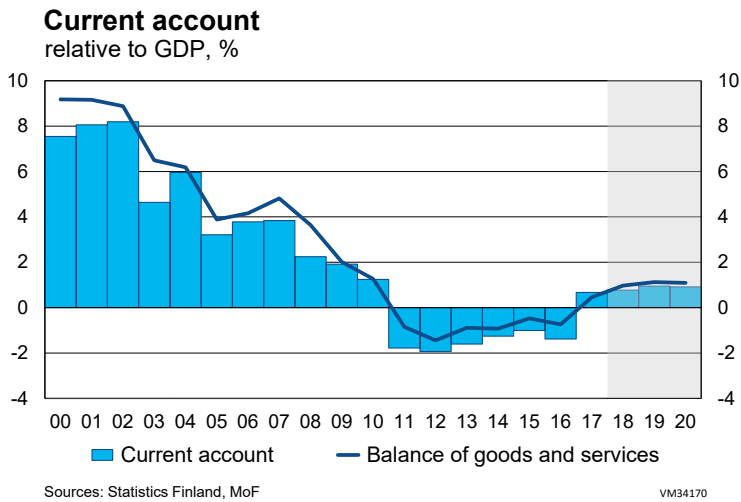
Strong world trade growth will improve the prospects of Finnish exports over the outlook period and Finland will no longer lose market shares in 2018 and 2019.



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Driven by export demand, exports are set to grow throughout the outlook period. In 2020, however, export growth will already underperform world trade growth. The goods to services ratio is expected to remain almost unchanged, which means that exports will continue to be driven by goods exports.

According to current information, the current account reached a surplus driven by the trade balance in 2017, but the balance of services remained in deficit. The current account will show a slight surplus throughout the outlook period, primarily due to favourable export development. The positive trend in service exports will also mean a lower deficit in the service account. On the other hand, 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.



The negative risks in the forecast mainly concern the trends in the world market and export demand. For example, the recent use of protectionist measures by the USA only has a minor direct impact on Finnish exports. There is the risk, however, that introduction of trade barriers in a specific context will result in countermeasures that will be reflected over a broader area. A particular positive risk perceived is economic development in the euro area exceeding expectations. This could improve Finland's export prospects. The rate of growth in emerging economies may also turn out to be favourable for Finland. Indeed, diversification of the geographical distribution of exports is one of the positive risks. In addition, continued favourable development in service exports may increase the value-added from exports.

**Table 7. Current account**

|  | 2015   | 2016 | 2017 | 2018** | 2019** | 2020** |
|--|--------|------|------|--------|--------|--------|
|  | EUR bn |      |      |        |        |        |
| Balance of goods and services            | -1.0   | -1.6 | 1.0  | 2.3    | 2.9    | 2.9    |
| Factor incomes and income transfers, net | -1.1   | -1.4 | 0.5  | -0.5   | -0.6   | -0.6   |
| Current account                          | -2.1   | -3.0 | 1.5  | 1.8    | 2.3    | 2.3    |
| Current account, relative to GDP, %      | -1.0   | -1.4 | 0.7  | 0.8    | 0.9    | 0.9    |

## 1.3 Domestic demand

### 1.3.1 Private consumption

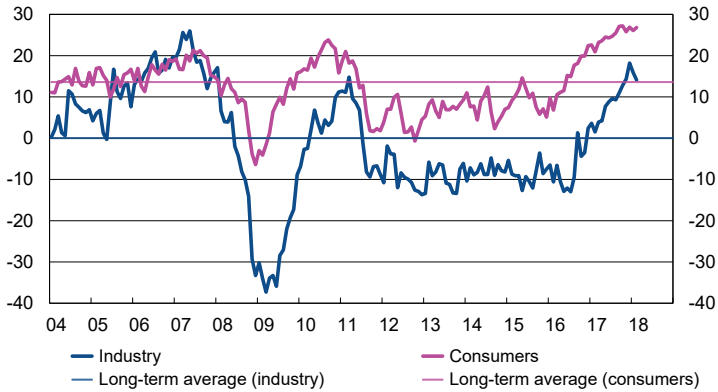
#### Consumption continues to grow at a slower rate

In 2018, the growth in private consumption will accelerate as a result of the rise in employment and in the earnings level. Growth in the sum of wages and salaries will reach almost 4%. The increase in household disposable income will accelerate clearly, but real income growth will be more moderate as inflation picks up. The fastest rate of growth will continue to be seen in consumer durables, but consumption growth in all categories will accelerate year on year in 2018.

Growth in household disposable income will also be supported by growth in current transfers as pension income increases. The improved employment situation will slow growth in social transfers. Changes in taxation will continue to increase employees' purchasing power. The household savings rate will remain exceptionally low.

In 2019, growth in private consumption will be bolstered not only by the increase in the earnings level but also by the higher employment rate, but the sum of wages and salaries will grow more slowly than this year. The sum of wages and salaries will still increase by more than 3% and keep the rate of increase in household disposable income higher than seen in the past few years. However, accelerating inflation will slow down the growth in real household disposable income, decelerating the growth of private consumption. Private consumption growth will therefore slow, improving the household savings rate.

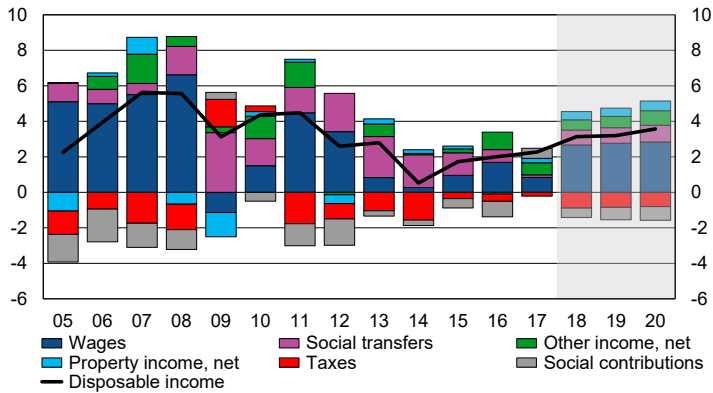
### Industry and consumer confidence balance, seasonally adjusted



Source: European Commission

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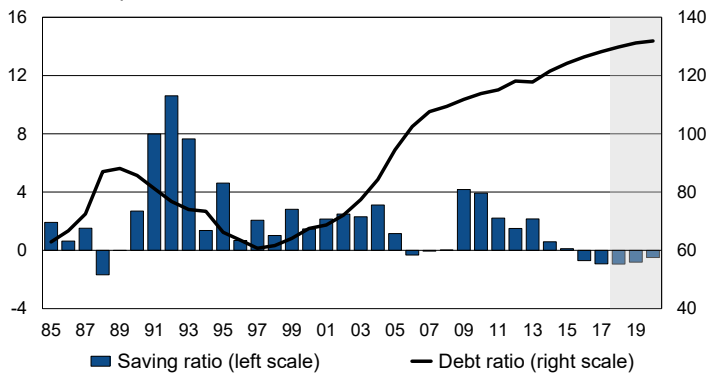
### Households' disposable income change and growth impact, %



Sources: Statistics Finland, MoF

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### Household savings and debt % of disposable income



Sources: Statistics Finland, MoF

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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 support 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. The restoration of the savings rate to levels closer to historical averages will also continue in 2020 but still remain exceptionally low. Household indebtedness in ratio to disposable income will not, however, take a downturn, even though the continued moderate rise in housing prices will keep growth slow in the most significant form of household debt, that is, housing loans.

### 1.3.2 Public consumption

The public consumption to GDP ratio will drop slightly during the outlook period as the value of GDP will increase more rapidly than government consumption expenditure. Growth in the amount of public consumption will remain relatively slow in the coming years. The largest items of consumption expenditure by government are personnel expenses and goods and services purchased. Growth in public consumption has been curbed particularly by the Competitiveness Pact and consolidation measures.

Local government consumption accounts for approximately two thirds and central government for less than one third of public consumption, while consumption by social security funds makes up the remainder. The share of central government consumption has declined steadily from 31% at the beginning of the millennium to 27%, whereas the share of municipal consumption has increased from 62% to nearly 66% during this period. The establishment of the counties will reduce the share of local government in public consumption to one third from 2020 onwards.

While the share represented by social security funds has varied slightly, it has remained at approximately 7% during the period under review.

**Table 8. Consumption**

|  | 2017     | 2015                | 2016       | 2017       | 2018**     | 2019**     | 2020**     |
|--|----------|---------------------|------------|------------|------------|------------|------------|
|  | share, % | change in volume, % |            |            |            |            |            |
| Private consumption                                      | 100.0    | 1.7                 | 1.8        | 1.6        | 1.8        | 1.5        | 1.4        |
| Households   | 95.4     | 1.9                 | 1.8        | 1.7        | 1.9        | 1.5        | 1.4        |
| Durables   | 8.1      | 2.9                 | 5.8        | 5.0        | 4.3        | 2.4        | 2.3        |
| Semi-durables  | 7.8      | 1.0                 | 2.4        | 2.5        | 2.8        | 1.2        | 1.1        |
| Non-durable goods  | 25.7     | 0.7                 | 0.7        | 1.0        | 1.3        | 1.3        | 1.2        |
| Services   | 53.0     | 1.4                 | 1.6        | 1.4        | 1.6        | 1.6        | 1.5        |
| Consumption by non-profit institutions                   | 4.6      | -2.0                | 1.0        | -0.5       | 0.5        | 0.5        | 0.5        |
| Public consumption                                       | 100.0    | 0.2                 | 1.8        | 1.3        | 0.5        | 0.5        | 0.9        |
| <b>Total</b>   |          | <b>1.3</b>          | <b>1.8</b> | <b>1.5</b> | <b>1.4</b> | <b>1.2</b> | <b>1.3</b> |
| Individual consumption expenditure in general government |          | 0.9                 | 1.0        | 1.6        | 0.6        | 0.3        | 1.3        |
| Total individual consumption expenditure                 |          | 1.5                 | 1.6        | 2.4        | 2.4        | 1.2        | 1.1        |
| Households' disposable income                            |          | 1.7                 | 2.0        | 2.3        | 3.1        | 3.3        | 3.7        |
| Private consumption deflator                             |          | 0.3                 | 0.9        | 0.9        | 1.3        | 1.5        | 1.8        |
| Households' real disposable income                       |          | 1.4                 | 1.1        | 1.4        | 1.8        | 1.8        | 1.9        |
|  |          | %                   |            |            |            |            |            |
| Consumption as proportion of GDP (at current prices)     |          | 79.7                | 79.1       | 77.6       | 76.6       | 75.8       | 75.3       |
| Household savings ratio                                  |          | 0.1                 | -0.7       | -0.9       | -0.9       | -0.7       | -0.3       |
| Household debt ratio <sup>1</sup>                        |          | 124.2               | 126.4      | 128.2      | 129.8      | 131.1      | 131.6      |

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

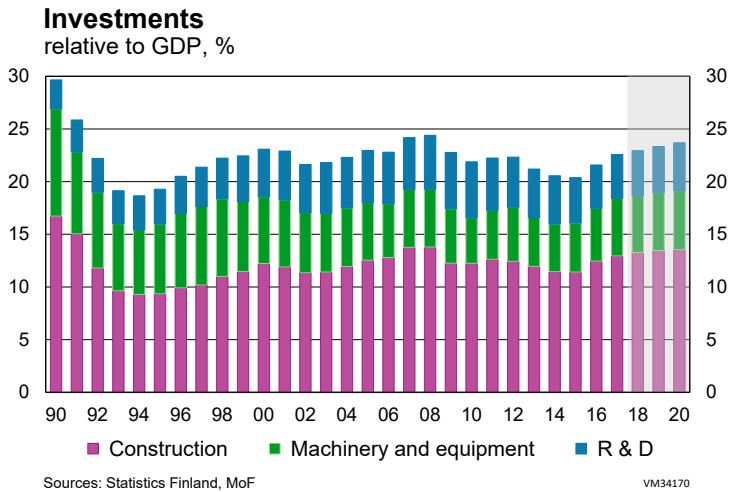


### 1.3.3 Private investment

#### The rate of growth in enterprise and household investment still remains good

In 2017, private investment grew very rapidly at 8.4% year on year. Growth was fastest early in the year and slowed clearly towards the end of the year. Research and development investment finally grew after eight years of decline. The enterprise demand situation has changed rapidly as Finnish exports have increased briskly and investments are growing almost worldwide. Low interest rates and excellent development in enterprises' operating surplus facilitate investment financing.

The annual growth in private investment will average 3½–4%, but this growth will continue at a slower pace than in recent years. Nonetheless, private investment will rise to around 20% in ratio to GDP towards the end of the outlook period and at that point already clearly exceed the cyclical peak seen in the second quarter of 2008.

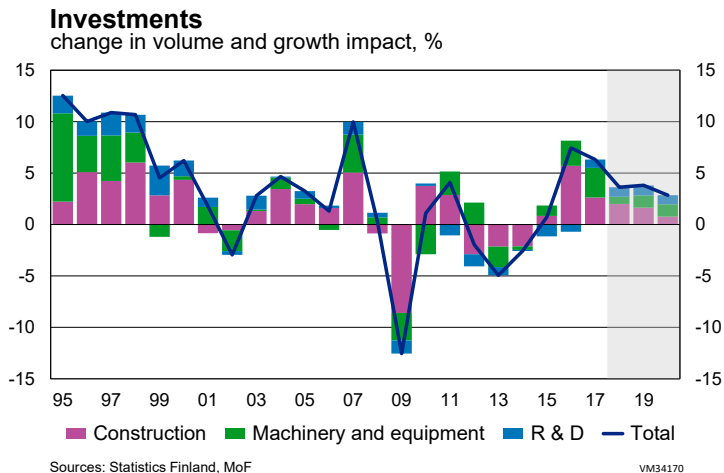


Investment particularly in housing and other buildings, machinery, equipment and transport equipment was high last year. Household investment in housing increased likewise by 8.9%. The prevailing cyclical situation in housing construction still remains good, with growth reaching almost 5% this year as a considerable number of building permits for dwellings were granted in the fourth quarter of last year, up by as much as 19% on the corresponding period a year earlier. In addition, the amount of unsold dwelling units has been rather low recently compared with

the normal level. In non-residential building construction investment, growth has been steadier and is now slowing down. The outlook for the next few years is, however, good due to several major projects being planned. New international investors have also emerged in the housing and real estate markets, which has increased the number of building projects started.

Given the cyclical position, the level of state-subsidised housing production (ARA production) will remain quite high. According to the national accounts, prices in investment in housing construction rose by 3.6% and those in development supported by the Housing Finance and Development Centre of Finland (ARA) by around 9% in the Helsinki Metropolitan Area and by little over 7% in other growth centres year on year. This means the cyclical situation is tightening further and ARA tenders are becoming more expensive.

Investment in repair construction is not keeping up with the rate of new construction investment as regards growth figures even though old buildings are now also being refurbished to better meet the demand and vacant offices are being converted to homes. Growth in repair investment is forecast to increase at an annual rate of around 2% during the outlook period.

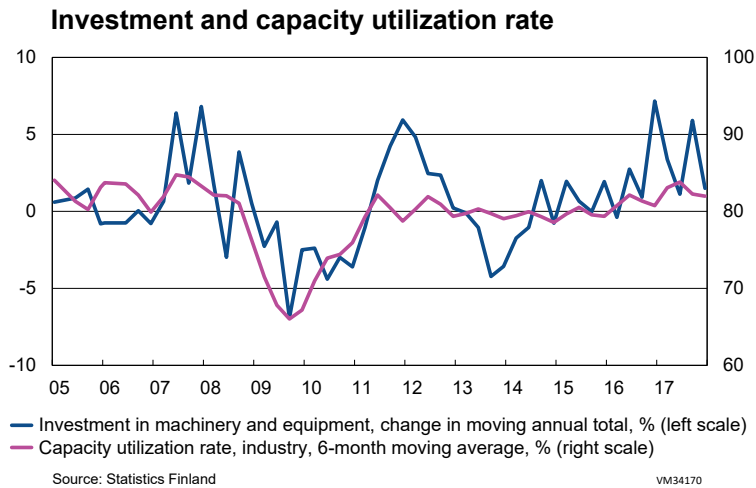


According to the investment survey published in January by the Confederation of Finnish Industries (EK), fixed industry investment would decrease by more than 8% this year, mainly due to the completion of individual large-scale projects. Among the majority of the respondents, however, investment would increase. According to the sur-

vey, manufacturing industries’ research and development expenditure would increase by around 4%. Several major industrial projects are being planned, particularly in the forest industry, and the forecast assumes that one of these will be launched in 2019. This assumption has an upward effect on the 2019 and 2020 forecasts concerning non-residential building construction and investment in machinery and equipment.

Civil engineering investment is projected to grow steadily at an annual rate of around 1½–2% in the coming years. Only around one third of structures and land improvement constitutes private-sector investment. Active housing production will increase public road and street investment, and there will also be a slight increase in rail investment this year.

Investment in research and development (R&D) will pick up compared to previous years. According to the forecast, R&D investment growth rate will be approximately 5% in the next few years. Public contributions to R&D funding will also increase this year. Towards the end of the outlook period, the R&D investment to GDP ratio will rise to 4½%.



The risks in the investment forecast are, on the one hand, related to potential corrective movements in the financial and capital markets and any resulting increases in general uncertainty and, on the other hand, to faster-than-forecast international economic growth. In addition, the implementation of major projects according to the planned schedule is uncertain due to various authorisation processes and mobilisation of financing.

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

|   | 2017         | 2015                | 2016       | 2017       | 2018**     | 2019**     | 2020**     |
|---|--------------|---------------------|------------|------------|------------|------------|------------|
|   | share, %     | change in volume, % |            |            |            |            |            |
| Buildings                                   | 47.8         | 2.0                 | 10.4       | 5.1        | 3.7        | 3.0        | 1.3        |
| Residential buildings                       | 28.6         | 2.0                 | 10.6       | 5.1        | 4.8        | 1.0        | -1.0       |
| Non-residential buildings                   | 19.2         | 2.1                 | 10.1       | 5.1        | 2.0        | 6.0        | 4.6        |
| Civil engineering construction              | 9.6          | -0.8                | 9.0        | 2.0        | 2.5        | 2.2        | 1.7        |
| Machinery and equipment                     | 24.2         | 4.6                 | 10.7       | 12.4       | 2.9        | 5.0        | 5.1        |
| R&D-investments <sup>1</sup>                | 18.4         | -5.2                | -3.3       | 4.3        | 5.0        | 5.3        | 4.7        |
| <b>Total</b>                                | <b>100.0</b> | <b>0.7</b>          | <b>7.4</b> | <b>6.3</b> | <b>3.6</b> | <b>3.8</b> | <b>2.9</b> |
| Private                                     | 82.8         | 2.2                 | 7.8        | 8.4        | 3.7        | 3.9        | 3.6        |
| Public                                      | 17.2         | -5.2                | 5.8        | -2.9       | 3.2        | 3.1        | -0.7       |
|   |              | %                   |            |            |            |            |            |
| Investment to GDP ratio (at current prices) |              |                     |            |            |            |            |            |
| Fixed investment                            |              | 20.4                | 21.6       | 22.6       | 23.0       | 23.4       | 23.7       |
| Private                                     |              | 16.5                | 17.5       | 18.7       | 19.0       | 19.4       | 19.8       |
| Public                                      |              | 3.9                 | 4.0        | 3.9        | 3.9        | 4.0        | 3.9        |

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

### 1.3.4 Public investment

The public investment to GDP ratio will remain close to the long-term average, although public investment is expected to grow slightly in the next few years. The largest items of public investment will be civil engineering investment (30%), non-residential construction investment (30%) as well as research and development investment (25%). The level of public investment has remained high due to factors including a brisk rate of hospital construction, investments in the Government's key projects and transport infrastructure refurbishment as well as the development of the counties' ICT systems.

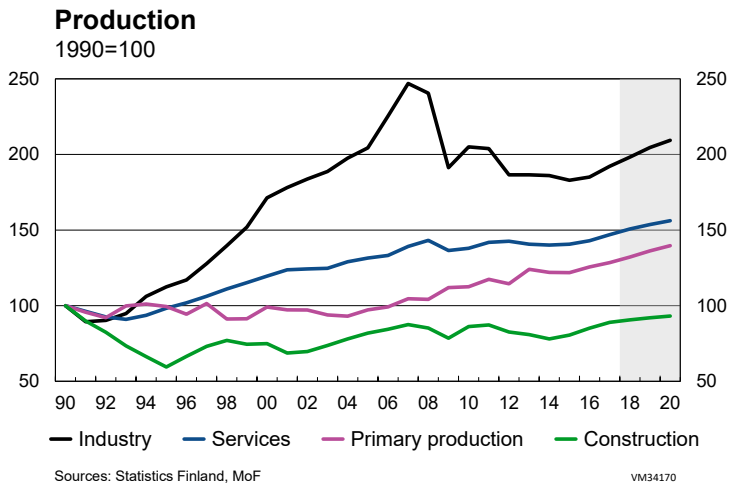
Local government investment accounts for more than half and central government investment for less than half of public investment. Social security funds represent a very small share of the total. The share of central government investment will continue its decline from 58% at the beginning of the millennium to 45%, whereas the share of local government investment will increase from 41% to around 55%. Due to the counties to be established in 2020, the rate of local government investment among total public investment will fall back to below 50%.

## 1.4 Domestic production

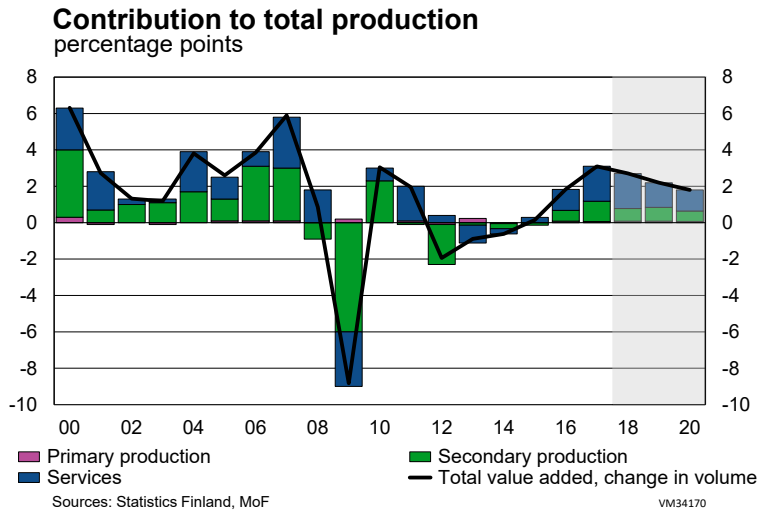
### 1.4.1 Total output

#### Economic growth will continue at a slowing rate

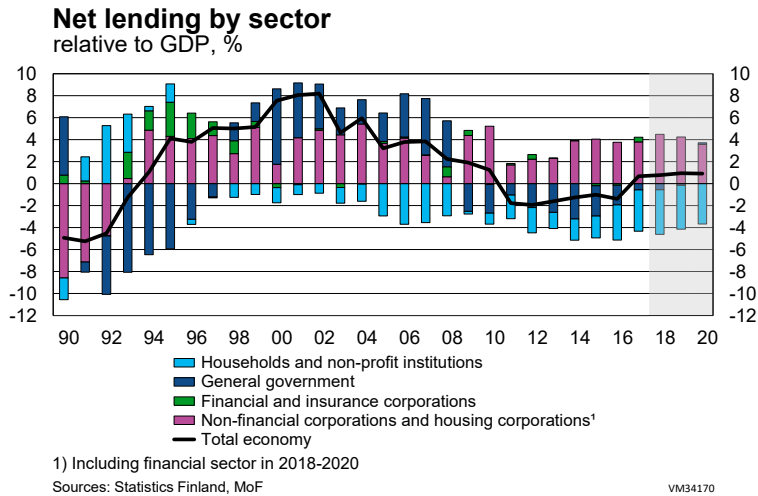
Output growth accelerated clearly last year. Gross value added for the economy was 3.1% higher year on year. This is the fastest rate of growth since 2007. Economic growth was also broad-based as increased output was seen in almost every industry. Growth was particularly brisk in financing and insurance, business services, manufacturing industry and construction. Output declined only in energy supply and agriculture last year. However, the level of gross value added is still 3½% lower than before the financial crisis as manufacturing output still remains at a clearly lower level.



The signs indicating the continuation of the upward trend have still been seen in the first months of the year. These include increases in new orders in manufacturing and higher business output expectations as well as a continuing construction boom in growth centres. On other hand, there are also signs of constraints on growth as many workplaces are facing a shortage of skilled labour, and lack of demand is more common in many private business sectors than in late 2017.



Despite obstacles to output growth, economic activity will remain strong across the board. Growth is being driven by an increase in orders illustrating strong international demand in manufacturing, progress made in numerous private and public construction projects started, and growth in service production. Although the period of fastest growth seen last year appears to be over, the business tendency surveys of the Confederation of Finnish Industries (EK) indicate that the positive trend will continue at least for the first half of the current year. In addition, the forecast's background assumptions concerning acceleration in the growth in world trade and global economy support export-oriented industrial production and therefore, indirectly, business services. Strengthened imports in Finland's most important trading area, Europe, are good news for Finnish industries manufacturing investment and intermediate products. Due to broad-based growth and a positive carry-over effect, gross value added for the economy will grow by just under 3% this year. The growth rate will continue to slow in 2019 and 2020, but total output will still increase by around 2% per year during those years.

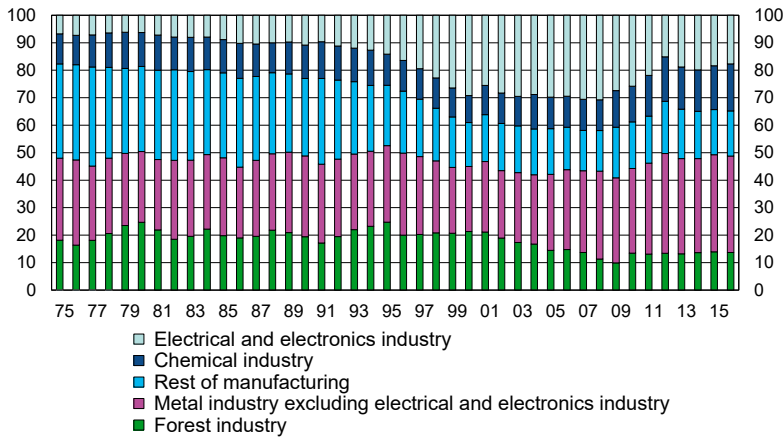


## 1.4.2 Secondary production

### Manufacturing output undergoing broad-based growth

The upswing seen last year in the manufacturing industries was the strongest in seven years and output increased by almost 4%. With the exception of energy supply, growth was evenly strong across all main industries. The forest industry growth rate accelerated due to increases in the outputs of the mechanical forest industry as well as pulp and paperboard production. In the metal industry, orders for transport equipment in particular will ensure output for years to come. The strong growth in the chemical industry slowed only slightly, and even the electrical and electronics industry reported growth following two years of decline.

## Manufacturing % of gross value added



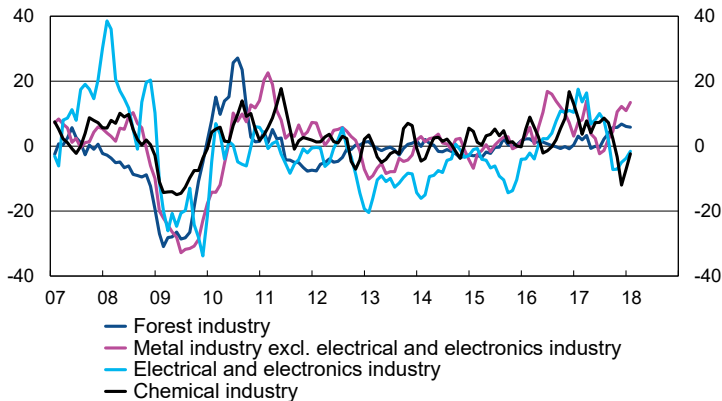
Source: Statistics Finland

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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% last year. This is reflected in the large number of new orders received by manufacturing companies, up 6½% year on year in the first months of the year. The highest number of orders has been won by the forest industry, but increasing order books have also been reported by the metal industry. The outlook for output in early 2018 is therefore positive.

## Volume index for industrial production

3-month moving average, change yoy, %



Source: Statistics Finland

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According to business tendency surveys, the highest growth prospects can be found in the forest, textile and construction product industries, while the lowest output projections are reported by the food and printing industries. In the forest industry, output is pushed up by increased demand for pulp, paperboard and sawn timber. Forest industry growth is also supported by capacity increases such as those made in Äänekoski. Overall, industrial output will increase by around 3% this year due to the positive economic outlook and new orders received.

In the years ahead, export demand will increase as world trade growth accelerates, with imports expected to grow 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 3% next year but slow to just over 2% in 2020. Despite this growth, the volume of industrial output will still remain almost one-sixth lower in 2020 than in the peak year of 2007.

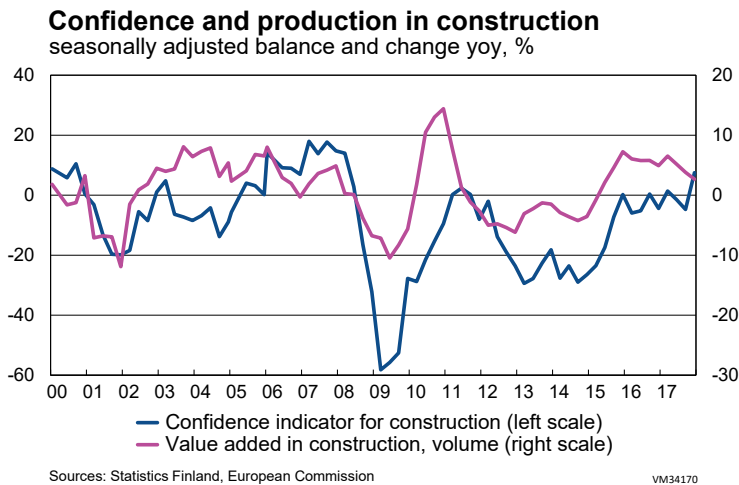
### **Construction no longer serving as engine for economic growth**

The growth of value added in construction slowed only slightly last year and output increased by 4.5% as there were several major construction projects underway at the same time. This growth resulted in the level of output exceeding that reached in 2007. Growth was also promoted by the diversity of construction. Migration is increasing housing demand in growth centres, municipalities are investing in health care and education facilities, and enterprises have launched capacity expansion and replacement projects, which could be seen in commercial, office as well as agricultural construction. However, levels of new construction are higher in growth centres than outside them, which means that growth is unevenly distributed across the regions. The need for repair construction is high, particularly as regards residential and office buildings.

The outlook for construction output still remains quite bright although more subdued than a year earlier. Many major construction projects are slated for completion this year. As some of these have been non-recurring, they will therefore not be immediately followed by further similar new construction projects. Consequently, order books of construction companies are on average weaker than normal. In addition, construction is the main industry suffering from the greatest shortage of skilled labour. Supported by construction projects currently underway, construc-

tion output will still increase by a couple of per cent this year, but construction is no longer serving as the engine for economic growth as it has for the past three years.

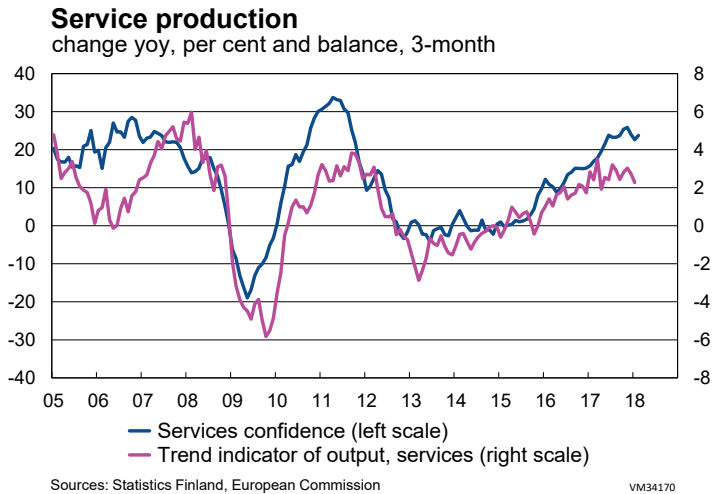
Construction will remain buoyant in growth centres in both 2019 and 2020, but the number of new starts will no longer increase as much as in recent years, further slowing the rate of growth. In the 2019–2020 period, the focus will be on a few major new construction projects and on repair construction, so the annual rate of increase in construction value added will be around 1½%.



### 1.4.3 Services

#### Broad-based growth in services

Service production has grown continuously for three years, and last year the growth rate accelerated to almost 3%. Value added growth in services was considerable in private and only slight in public services. The fastest growth rate was seen in business services. Consumer service sales also increased despite the modest development in purchasing power.



The cyclical position of private services is strong. Sales are on the increase and are generally expected to continue to grow in the first half of the year. Nevertheless, lack of demand is an equally important obstacle to growth in service industries as is a shortage of skilled labour. The best conditions for growth can be found in information and communication services and in real estate. Brisk sales are also expected to continue in sales in trade industries and in financing and insurance. The increase in value added in services this year will be 2½% year on year.

Looking ahead, service production will be supported by demand in manufacturing and other industries, providing robust conditions for service-sector growth. Consumer-driven services will also benefit from the improved purchasing power. International demand will increase service production serving foreign demand and, through intermediate products, also domestic service production. 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, % |            |            |            |            |            |             |
| Industry                                 | 20.6                   | -1.7                | 1.2        | 3.9        | 3.2        | 3.2        | 2.3        | -2.5        |
| Construction                             | 7.1                    | 3.3                 | 5.6        | 4.5        | 1.9        | 1.5        | 1.3        | 0.2         |
| Agriculture and forestry                 | 2.7                    | -0.1                | 3.1        | 2.3        | 2.9        | 3.1        | 2.6        | 2.1         |
| Industry and construction                | 27.8                   | -0.5                | 2.2        | 4.0        | 2.9        | 2.7        | 2.0        | -1.9        |
| Services                                 | 69.6                   | 0.4                 | 1.6        | 2.8        | 2.6        | 2.0        | 1.7        | 0.5         |
| <b>Total production at basic prices</b>  | <b>100.0</b>           | <b>0.1</b>          | <b>1.8</b> | <b>3.1</b> | <b>2.7</b> | <b>2.2</b> | <b>1.8</b> | <b>-0.2</b> |
| GDP at market prices                     |                        | 0.1                 | 2.1        | 2.6        | 2.6        | 2.2        | 1.8        | 0.0         |
| Labour productivity in the whole economy |                        | 0.2                 | 1.7        | 2.4        | 0.9        | 1.2        | 1.2        | 0.1         |

1) Share of total value added at current prices.

## 1.5 Labour force

### Employment growth strongest since financial crisis

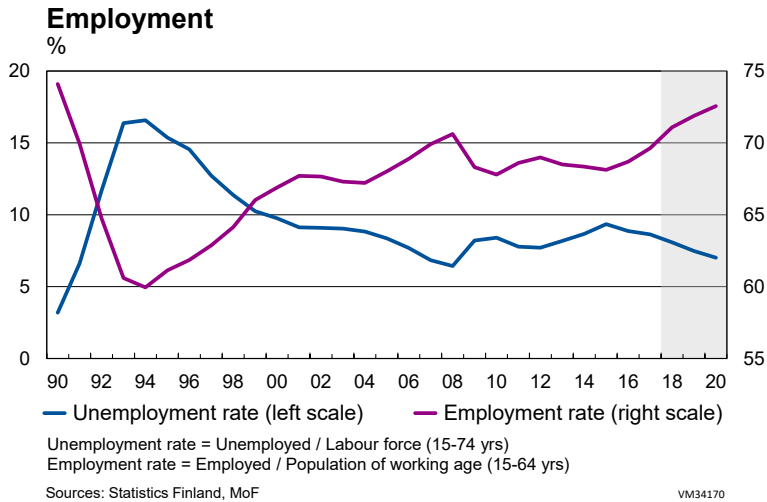
The broad-based and rapid strengthening of economic activity improved the employment situation during 2017. According to the Labour Force Survey, the number of employed persons increased by 1.0%. Despite the extended working hours specified in the Competitiveness Pact, the working hours did not increase more than this in 2017. In recent months, the employment rate has increased exceptionally rapidly, with the employment rate trend already rising close to 71% in early 2018.

Demand for labour has increased swiftly. According to Statistics Finland, the average increase in the number of job vacancies was 23% in 2017. In February, the number of new job vacancies reported to Employment and Economic Development Offices (TE Offices) was more than 20% higher than a year earlier. According to the European Commission's confidence indicators, Finnish enterprises' employment expectations are at their highest since 2011. Measured by the job vacancy rate, however, Finnish demand for labour was only at the medium level among EU Member States.

Continued strong economic growth and increased demand for labour will take the number of employed persons in 2018 up 1.8% year on year, meaning the employment rate will climb to 71.1%.

According to the Labour Force Survey of Statistics Finland, there was only a slight decrease in unemployment in 2017 and the unemployment rate was 8.6%. The slow fall

in the unemployment rate is at least in part due to the activation of the disguised unemployed and other persons outside the labour force to become jobseekers, which is normal in the context of economic upswing. Although the reduction in unemployment has been uneven, the combined number of the unemployed and the disguised unemployed has decreased quite steadily since early 2016.



The unemployment rate trend decreased to 8.4% in February. Driven by the rapid rise in employment, the number of unemployed persons will decrease more this year than in 2017. The projected unemployment rate for 2018 is 8.1%.

The continuing reasonably rapid rate of GDP growth and the moderate development in real wages and salaries will maintain labour demand during the outlook period. Due to the 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 number of employed persons will increase by 1.0% in 2019 and 0.7% in 2020. The employment rate will rise to almost 72% in 2019 and further to 72.5% in 2020.

The decrease in unemployment will be slowed by the large numbers of the disguised and the structurally unemployed. The number of unemployed persons is therefore anticipated to remain considerably high for the entire outlook period in spite of stronger economic growth. The unemployment rate is expected to fall to 7.5% in 2019 and further to 7% in 2020.

According to the Employment Service Statistics compiled by the Ministry of Economic Affairs and Employment, the number of the unemployed and the long-term unemployed has decreased swiftly since 2017 in all age groups. However, part of this decrease is simply due to register information being corrected. It is expected that strong economic growth and good demand for labour will see the number of the long-term unemployed and the structurally unemployed continue to shrink in the years ahead although at a slower pace than in 2017.

Although the supply of labour in the Finnish economy on the whole is sufficient, sectoral labour shortages can already be detected in certain occupational groups. According 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** |
|---------------------------------------|-------------------------------|------|------|--------|--------|--------|
|                                       | annual average, 1.000 persons |      |      |        |        |        |
| Population of working age (15-74 yrs) | 4102                          | 4109 | 4114 | 4127   | 4138   | 4140   |
| change                                | 6                             | 7    | 5    | 13     | 11     | 2      |
| Population of working age (15-64 yrs) | 3476                          | 3463 | 3451 | 3441   | 3436   | 3429   |
| change                                | -15                           | -13  | -12  | -10    | -5     | -7     |
| Employed (15-74 yrs)                  | 2437                          | 2448 | 2473 | 2517   | 2542   | 2560   |
| of which 15-64 yrs                    | 2368                          | 2379 | 2403 | 2446   | 2470   | 2488   |
| Unemployed (15-74 yrs)                | 252                           | 237  | 234  | 221    | 205    | 193    |
|                                       | %                             |      |      |        |        |        |
| Employment rate (15-64 yrs)           | 68.1                          | 68.7 | 69.6 | 71.1   | 71.9   | 72.5   |
| Unemployment rate (15-74 yrs)         | 9.4                           | 8.8  | 8.6  | 8.1    | 7.5    | 7.0    |
|                                       | 1.000 persons per annum       |      |      |        |        |        |
| 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 Competitiveness Pact concluded by the social partners. According to preliminary data, the index of wage and salary earnings increased by 0.2%. The increase in the sum of wages and salaries in the Finnish economy on the whole in 2017 was 2.6%, a rate clearly faster than what could have been anticipated on the basis of the growth in earnings and employment. This is primarily due to employment among employees having risen considerably faster than employment among self-employed persons. Additionally, cuts to holiday bonuses were timed in various statistics in different ways, which has made it difficult to compare wage and salary statistics.

Negotiations on pay rises for 2018 and 2019 have taken place industry-specifically. On the basis of collective agreements signed by the end of March, nominal earnings are estimated to rise by 1.9% in 2018 and 2.5% in 2019. Wage drifts are anticipated to remain below average due to local settlements and company-specific items.

The total sum of wages and salaries in the economy is predicted to grow by 3.7% in 2018 and 3.5% in 2019.

In 2020, nominal earnings are projected to increase by 2.8% and the sum of wages and salaries by 3.5%. 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 slower than the average rise seen in the 2000s, which is in line with the high rate of unemployment.

**Table 12. Disposable income**

|   | 2017     | 2015      | 2016  | 2017  | 2018** | 2019** | 2020** | Average |
|---|----------|-----------|-------|-------|--------|--------|--------|---------|
|   | share, % | change, % |       |       |        |        |        |         |
| Compensation of employees                           | 56.9     | 1.1       | 1.8   | 0.9   | 2.9    | 3.1    | 3.3    | 2.0     |
| Wages and salaries                                  | 46.8     | 1.0       | 1.6   | 2.6   | 3.7    | 3.5    | 3.5    | 2.3     |
| Employers' contributions to social security schemes | 10.1     | 1.4       | 2.5   | -6.1  | -0.8   | 1.1    | 2.0    | 0.9     |
| Property and entrepreneurial income, net            | 27.3     | 7.2       | 4.7   | 13.8  | 5.9    | 8.0    | 5.6    | 0.7     |
| Taxes on production and imports minus subsidies     | 15.7     | -0.1      | 5.7   | 2.5   | 2.0    | 2.6    | 2.2    | 3.2     |
| National income                                     | 100.0    | 2.3       | 3.2   | 4.4   | 3.6    | 4.4    | 3.8    | 1.8     |
| Disposable income                                   |          | 2.4       | 3.3   | 4.7   | 3.6    | 4.4    | 3.8    | 1.8     |
| Gross national income, EUR bn                       |          | 211.5     | 217.5 | 226.2 | 234.3  | 244.1  | 253.0  |         |

**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                             | 0.7        | 0.6        | -0.3       | 1.3        | 1.9        | 2.1        | 1.8        |
| Wage drift, etc.   | 0.7        | 0.5        | 0.5        | 0.6        | 0.6        | 0.7        | 0.7        |
| <b>Index of wage and salary earnings</b>                   | <b>1.4</b> | <b>1.1</b> | <b>0.2</b> | <b>1.9</b> | <b>2.5</b> | <b>2.8</b> | <b>2.5</b> |
| Real earnings <sup>1</sup>                                 | 1.6        | 0.5        | -0.6       | 0.7        | 1.1        | 1.1        | 1.1        |
| Average earnings <sup>2</sup>                              | 1.4        | 1.0        | 0.6        | 1.9        | 2.5        | 2.9        | 2.2        |
| Labour costs per unit of output whole economy <sup>3</sup> | 0.9        | 0.0        | -2.1       | 0.2        | 0.9        | 1.4        | 2.3        |

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.

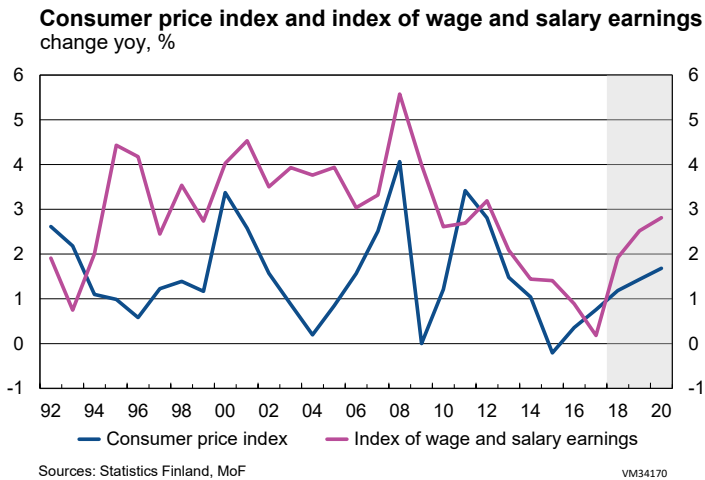
3) Compensation of employees divided by gross value added in volume at basic prices.

## 1.6.2 Consumer prices

The slow upward trend continued in consumer prices in 2017. Measured by the national Consumer Price Index, last year's inflation rate was 0.7%. The increase in consumer prices last year was caused mainly by price increases in the service and energy sub-items. Inflation decelerated towards the end of 2017 and in the fourth quarter the Consumer Price index rose by 0.6% year on year. This was mainly due to a reduction in the positive impact of the energy sub-item coinciding with an acceleration in the decrease of goods prices.



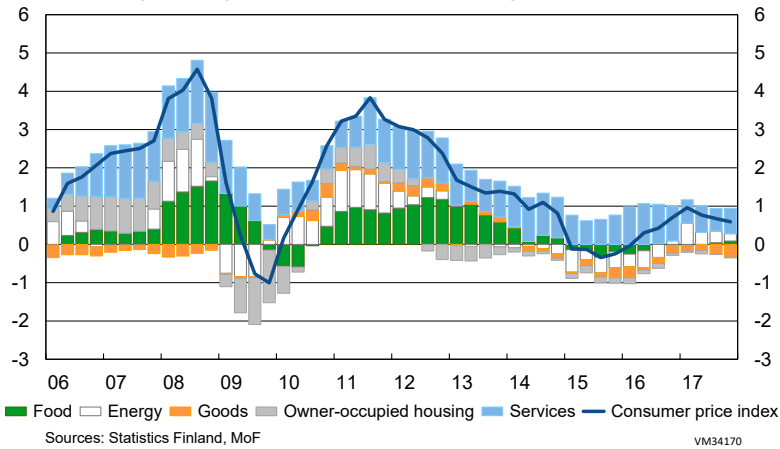
The inflation forecast for the current year is 1.2% as measured by the national Consumer Price Index. This year, price increases will be fuelled by, for example, the price of crude oil, which is at higher level than last year, and hikes in the prices of processed foods. Inflation will still be most affected by the hike in service prices, but the impact will hardly increase at all compared with last year. Changes in indirect taxes in 2017 will drive inflation by an estimated 0.3–0.4 percentage points.



The price of crude oil has risen significantly since last summer. As the base effects are considerable, energy prices are projected to climb quite a bit in summer 2018 compared with the year before. The weakening of the US dollar has, however, clearly dampened the rise of oil price in euros, which is why the impact of the energy sub-item on inflation will remain moderate this year. Import prices will continue to rise but at a steadier rate. In the current year, this will have an impact particularly on goods prices, which are projected to fall less than last year. With the earnings level rising, service prices are anticipated to go up, but the increase will still remain moderate this year. This is due to factors including lowered daycare charges. On the other hand, increases in excise duties on alcoholic beverages and tobacco products will have a significant accelerating impact on inflation this year. Food prices are also projected to take an upturn during the current year.

Inflationary pressures will be moderate but higher than before also during the next years of the outlook period because the economy has fewer available resources as the output gap is closing and turning positive. The national Consumer Price Index is

**Consumer price index**  
percentage change and contribution to change



forecast to increase by 1.4% in 2019 and 1.7% in 2020. The increase in service prices is projected to accelerate gradually during the outlook period as the earnings level rises. The slowly rising oil price and expectations of the strengthening of the US dollar will also maintain inflation in 2019 and 2020.

Inflation in the euro area also slowed last year, despite the gradual strengthening of economic growth in the area. According to assessments of experts from the European Central Bank received in March, annual inflation in the euro area is expected to be 1.4% in 2018, 1.4% in 2019 and 1.7% in 2020. The comparable growth forecasts of the Ministry of Finance of Finland based on the Harmonised Index of Consumer Prices (HICP) are 1.2% for 2018, 1.4% for 2019 and 1.7% for 2020. Finnish inflation in 2017 was clearly lower than the rate seen in the euro area but is projected to accelerate this year to a level closer to the average for the euro area.

**Table 14. Price indices**

|                                       | 2015      | 2016 | 2017 | 2018** | 2019** | 2020** | Average |
|---------------------------------------|-----------|------|------|--------|--------|--------|---------|
|                                       | change, % |      |      |        |        |        |         |
| Export prices <sup>1</sup>            | -0.9      | -1.8 | 2.9  | 1.8    | 1.9    | 1.5    | 0.2     |
| Import prices <sup>1</sup>            | -4.3      | -3.2 | 3.8  | 2.2    | 2.4    | 2.1    | 0.1     |
| Consumer price index                  | -0.2      | 0.4  | 0.7  | 1.2    | 1.4    | 1.7    | 1.7     |
| Harmonised index of consumer prices   | -0.2      | 0.4  | 0.8  | 1.2    | 1.4    | 1.7    | 1.9     |
| Basic price index for domestic supply | -2.7      | -1.2 | 5.2  | 3.4    | 2.4    | 2.3    | 2.1     |
| Building cost index                   | 0.5       | 0.5  | 0.3  | 2.0    | 2.0    | 2.1    | 2.3     |

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

## 2 Public finances

### 2.1 General government finances

The fiscal position of general government finances has improved in recent years due to government consolidation measures and favourable economic cycle, with the deficit falling to 0.6 per cent of GDP last year. Over the next few years favourable economic development will turn the general government finances to a small surplus after more than a decade of deficit. The economic upswing will nevertheless not correct the sustainability gap in public finances. Growth in age-related expenditure due to the changing age structure of the population will automatically impair general government finances for a long time to come. For general government finances to move onto a sustainable trajectory in the long term and to enable pension, care and nursing expenditure to be covered without measures to strengthen general government finances or further indebtedness, the budgetary position needs to show a clearer surplus in the early 2020s.

The public debt ratio began falling in 2016 and will continue to decline over the outlook period. Nominal debt will continue to grow. The level of public debt will be very high at the onset of the next economic downturn, leaving general government finances much more vulnerable to a new recession.

The general government finances of Finland cover central and local government, together with social security funds, which in turn comprise earnings-related pension funds, and other social security funds. General government finances will be restructured as of 2020 when new counties begin operating. Statistics Finland will decide the sectoral classification of regional government units in national accounts at a later date. Regional administration has been differentiated into its own sector for the purposes of this Ministry of Finance spring 2018 public finances forecast and medium-term outlook.

Central government finances remained clearly in deficit in 2017, but this deficit was much smaller than in the previous year. Economic fluctuations are most clearly reflected in central government finances due especially to the high sensitivity of tax revenues to economic cycle. Rapid economic growth boosted tax revenues while expenditures was limited under measures due to the government consolidation measures. Government deficit will gradually decline over the next few years due to economic growth and consolidation measures.

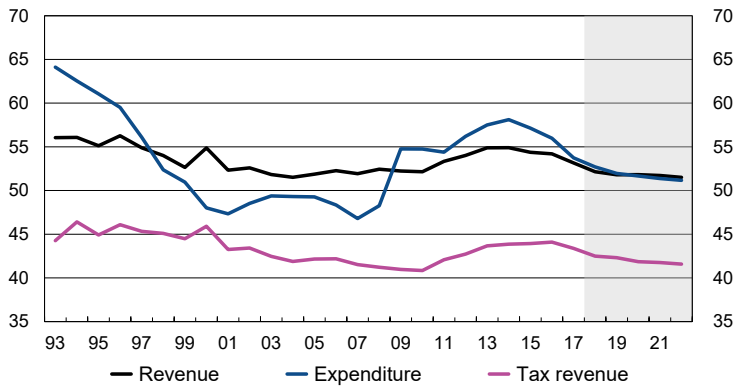
Local government was slightly in deficit in 2017. This deficit was smaller than in the preceding year. Local government bears the particular burden of rising social and health care expenditure due to the changing age structure of the population. Some local government functions will be transferred to counties when the reform of social services, health care and regional government takes effect in 2020. Local government will remain slightly in deficit over the outlook period.

The surplus of earnings-related pension funds was slightly under one per cent of GDP last year. This surplus was reduced by rapid growth in pension expenditures, which was not sufficiently offset by the increase in pension contribution revenues and income from property holdings. The financial position of other social security funds has been reinforced by the 2016 increase in the unemployment insurance contribution and falling unemployment. Other social security funds remain in marginal surplus over the outlook period.

The public finances expenditure fell slightly last year. Total revenue clearly increased despite reductions in employer contributions and tax cuts granted under the Competitiveness Pact. Expenditure rate and tax rate will continue to slightly decrease over the outlook period.

The deficit in general government finances related to GDP has remained clearly below the three per cent reference value stipulated in the Treaty on the Functioning of the European Union in recent years, but public debt has exceeded the corresponding 60 per cent reference threshold. The debt ratio is nevertheless also already expected to fall below the critical threshold next year. Further details of compliance with EU rules are set out in the stability programme appended as Annex 5 to the general government fiscal plan.

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



Sources: Statistics Finland, MoF

VM34098

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

|  | 2015         | 2016         | 2017         | 2018**       | 2019**       | 2020**       |
|--|--------------|--------------|--------------|--------------|--------------|--------------|
|  | EUR billion  |              |              |              |              |              |
| Current taxes                                | 34.8         | 35.6         | 37.2         | 38.1         | 40.1         | 41.1         |
| Taxes on production and imports              | 29.7         | 31.1         | 31.5         | 32.2         | 33.1         | 33.6         |
| Social security contributions                | 27.0         | 27.9         | 27.3         | 27.9         | 28.9         | 29.9         |
| Taxes and contributions, total <sup>2)</sup> | 92.1         | 95.2         | 97.0         | 98.9         | 102.8        | 105.4        |
| Other revenue <sup>3)</sup>                  | 22.5         | 22.3         | 22.8         | 23.2         | 23.8         | 25.8         |
| of which interest receipts                   | 2.1          | 1.9          | 1.6          | 1.8          | 1.9          | 2.1          |
| <b>Total revenue</b>                         | <b>114.0</b> | <b>116.9</b> | <b>118.8</b> | <b>121.4</b> | <b>125.8</b> | <b>130.4</b> |
| Consumption expenditure                      | 51.1         | 51.7         | 51.5         | 52.6         | 54.4         | 55.6         |
| Subsidies                                    | 2.8          | 2.7          | 2.7          | 2.6          | 2.6          | 2.6          |
| Social security benefits and allowances      | 41.6         | 42.3         | 42.5         | 43.4         | 44.4         | 45.5         |
| Other current transfers                      | 5.8          | 5.7          | 5.3          | 5.4          | 5.6          | 5.7          |
| Subsidies and current transfers, total       | 50.2         | 50.7         | 50.4         | 51.4         | 52.6         | 53.8         |
| Capital expenditure <sup>4)</sup>            | 8.9          | 9.1          | 8.9          | 9.6          | 10.1         | 10.2         |
| Other expenditure                            | 9.5          | 9.3          | 9.2          | 9.0          | 9.1          | 10.5         |
| 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>120.1</b> | <b>122.7</b> | <b>126.2</b> | <b>130.1</b> |
| <b>Net lending (+) / net borrowing (-)</b>   | <b>-5.8</b>  | <b>-3.9</b>  | <b>-1.3</b>  | <b>-1.3</b>  | <b>-0.4</b>  | <b>0.4</b>   |
| Central government                           | -6.3         | -5.8         | -3.8         | -3.8         | -2.1         | -1.0         |
| County government                            |              |              |              |              |              | -1.0         |
| Local government                             | -1.4         | -1.0         | -0.2         | -0.4         | -1.0         | -0.3         |
| Employment pension schemes                   | 2.7          | 2.4          | 2.1          | 2.4          | 2.2          | 2.1          |
| Other social security funds                  | -0.8         | 0.5          | 0.7          | 0.6          | 0.4          | 0.6          |
| Primary balance <sup>5)</sup>                | -5.4         | -3.4         | -0.7         | -1.0         | -0.3         | 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** |
|---|----------|------|------|--------|--------|--------|
|   | % of GDP |      |      |        |        |        |
| Taxes and social security contributions     | 43.9     | 44.1 | 43.4 | 42.5   | 42.3   | 41.9   |
| General government expenditure <sup>1</sup> | 57.1     | 56.0 | 53.7 | 52.7   | 52.0   | 51.7   |
| Net lending                                 | -2.8     | -1.8 | -0.6 | -0.6   | -0.2   | 0.1    |
| Central government                          | -3.0     | -2.7 | -1.7 | -1.6   | -0.9   | -0.4   |
| County government                           |          |      |      |        |        | -0.4   |
| Local government                            | -0.7     | -0.4 | -0.1 | -0.2   | -0.4   | -0.1   |
| Työeläkelaitokset                           | 1.3      | 1.1  | 0.9  | 1.0    | 0.9    | 0.9    |
| Other social security funds                 | -0.4     | 0.2  | 0.3  | 0.2    | 0.2    | 0.2    |
| Primary balance <sup>2</sup>                | -2.6     | -1.6 | -0.3 | -0.4   | -0.1   | 0.2    |
| General government debt                     | 63.5     | 63.0 | 61.4 | 60.4   | 58.9   | 57.4   |
| Central government debt                     | 47.6     | 47.4 | 47.3 | 46.9   | 45.6   | 44.4   |
| General government employment, 1000 person  |          |      |      |        |        |        |
| Central government                          | 619      | 614  | 610  | 609    | 605    | 604    |
| County government                           | 133      | 131  | 130  | 128    | 127    | 121    |
| Local government                            |          |      |      |        |        | 228    |
| Social security funds                       | 475      | 473  | 469  | 469    | 467    | 245    |
| 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  |        |        |
|                 | % of GDP       |        |        |       |        |        |
| *Finland        | -0.6           | -0.6   | -0.2   | 61.4  | 60.4   | 58.9   |
| Finland         | -1.4           | -1.2   | -0.8   | 62.7  | 62.1   | 61.6   |
| United Kingdom  | -2.1           | -2.0   | -1.5   | 86.6  | 85.3   | 84.2   |
| Sweden          | 0.9            | 0.7    | 0.6    | 39.0  | 36.6   | 34.4   |
| Denmark         | -1.0           | -1.0   | -0.9   | 36.1  | 35.5   | 34.7   |
| Ireland         | -0.4           | -0.2   | -0.2   | 69.9  | 69.1   | 67.2   |
| Spain           | -3.1           | -2.4   | -1.7   | 98.4  | 96.9   | 95.5   |
| The Netherlands | 0.7            | 0.5    | 0.9    | 57.7  | 54.9   | 51.5   |
| Luxembourg      | 0.5            | 0.3    | 0.4    | 23.7  | 23.0   | 22.9   |
| Portugal        | -1.5           | -1.4   | -1.2   | 126.4 | 124.1  | 121.1  |
| Austria         | -1.0           | -0.9   | -0.6   | 78.6  | 76.2   | 73.4   |
| Germany         | 0.9            | 1.0    | 1.1    | 64.8  | 61.2   | 57.9   |
| France          | -2.9           | -2.9   | -3.0   | 96.9  | 96.9   | 96.9   |
| Belgium         | -1.5           | -1.4   | -1.5   | 103.8 | 102.5  | 101.2  |
| Italy           | -2.1           | -1.8   | -2.0   | 132.1 | 130.8  | 130.0  |
| Greece          | -1.2           | 0.9    | 0.8    | 179.6 | 177.9  | 170.2  |

Source: EU Commission Autumn Forecast 2017; \*Finland: Ministry of Finance, Spring 2018

## IMPACT OF EMPLOYMENT AND PRODUCTIVITY GROWTH ON GENERAL GOVERNMENT FINANCES

Economic growth will usually tend to boost general government finances. It increases taxable incomes and reduces economic cycle-related income transfers as growth brings down unemployment. On the other hand, economic growth also increases expenditure of general government, with the associated rise in price indices governing public sector salaries, external services and income transfers. The overall impact of economic growth on general government finances will depend on the economic climate and on the sources of economic growth, which determine how growth is reflected in prices and wages, and thereby in public revenues and expenditures.

Economic growth will be visible in the tax revenues of central and local government and social security funds, in particular through wage growth. If the rising wage bill is due to improved employment, then income tax revenue will increase in roughly the same proportion. If the rising wage bill reflects a rise in average earnings, then tax revenues will grow more rapidly than the payroll due to the progression<sup>1</sup> of central and local income taxes and the sickness insurance contribution<sup>2</sup>. Table 1 shows how a one per cent rise in wage and benefit income affects revenues from various income taxes and from social security contributions.

**Table 1. Direct tax revenue impacts of a one percentage point rise in wage and benefit incomes**

| Wage and benefit incomes (including pensions) +1% | Change, %   |
|---|-------------|
| Central government                                | 1,70        |
| Municipalities                                    | 1,51        |
| Church  | 1,55        |
| Kela (sickness insurance contribution)            | 1,68        |
| Pension insurance contribution                    | 1,00        |
| Employee's unemployment insurance contribution    | 1,00        |
| Health insurance benefit contribution             | 1,01        |
| <b>Total</b>                                      | <b>1,45</b> |

Economic growth is reflected in consumption arising from higher disposable incomes and in the associated taxes. Consumption taxes account for about a quarter of total general government revenues. With no progression on consumption taxes, they generally grow in proportion to the value of private consumption. Some 12 per cent of

1 The Competitiveness Pact stipulates that health insurance only applies to annual incomes exceeding EUR 14,000. The sickness insurance payment accordingly progresses in the same way as municipal tax.

2 This is because people move to a higher income category as earnings increase, assuming that no index corrections are made to the tax tables, so the average tax rate increases.



general government revenues arise from service sales and service charges, for which growth also reflects the general growth in wages and costs.

Public expenditure largely comprises compensation paid to employees (27%), social benefits (45%) or intermediate product consumption (22%), meaning public purchasing of goods and services (Figure 1). Public spending is always based on decisions to some extent, but expenditure will automatically increase with rising costs if expenditure are not restricted or increased on the basis of decisions. Some expenditure items, such as pensions and social and health care costs, will grow more rapidly than costs as the population ages, even if no new spending decisions are made. Certain expenditure items, such as unemployment benefits, also depend on the general economic climate.

Public sector wages largely keeps pace with wages in the private sector, which in turn tend to reflect the growing productivity of work in that sector. Wages and productivity may nevertheless diverge in the short term, as wage rates are often inflexible and do not correspondingly fall when productivity declines. On the other hand, wages generally rise more slowly when productivity recovers. Private sector productivity growth will also be reflected in the medium term in rising public sector payroll costs if no corresponding productivity improvement occurs in the public sector, or if the productivity growth is applied to improve service quality and not to save costs. A large share of intermediate product consumption comprises service purchases at prices that keep pace with the general rise in prices and wages. Many social benefits are linked to price indices and therefore keep pace not only with rising prices, but also partly with increases in earnings.

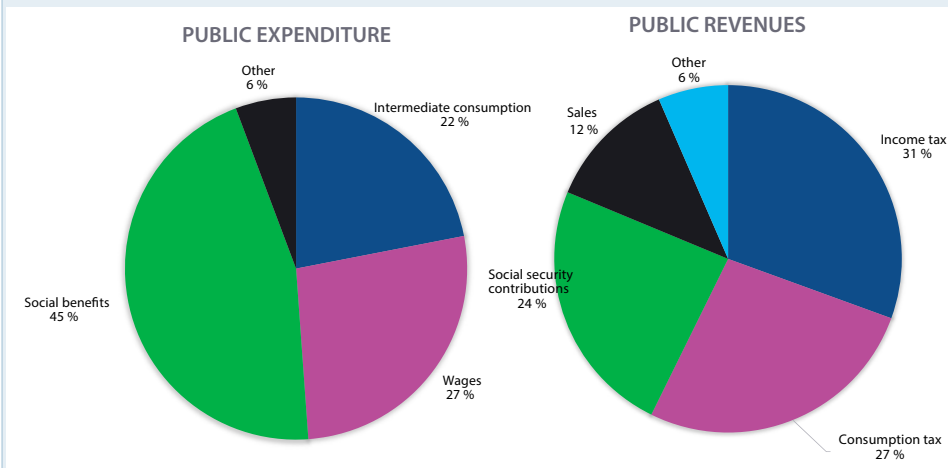


Figure 1. Share of public expenditure and revenues by category.

Two GDP growth scenarios help to illustrate the effects of economic growth on general government finances<sup>3</sup>. Both scenarios assume one year of GDP growth exceeding the baseline by one per cent, followed by a return to the baseline growth level. The first scenario envisages a one per cent increase in labour productivity as the source of higher economic growth, reflected in a corresponding wage rise<sup>4</sup>. The second scenario instead envisages GDP growth arising from higher employment, with productivity and wages remaining unchanged<sup>5</sup>. The second scenario also assumes that two-thirds of new employees were previously unemployed and the rest came from outside the workforce. Both scenarios envisage growth in payroll and private consumption at a rate one per cent higher than the baseline.

The first scenario sees an increase in tax revenues of EUR 1 billion above the baseline<sup>6</sup>, comprising MEUR 700 raised in direct taxes and social security contributions, and the remaining MEUR 300 coming from growth in indirect taxes and sales. It should be noted that income tax rate in this scenario rises due to progression as average wage increases with no index adjustments made to tax schedule. Public sector wages and the prices of intermediate consumption are assumed to increase under scenario 1 in line with private sector wages, increasing general government expenditure by MEUR 600. Social benefits' indexation also increase slightly as earnings rise. This scenario envisages no change in the levels of employment and unemployment, and accordingly no change in unemployment expenditure. The overall outcome is an increase of MEUR 400 in the balance of general government finances, amounting to 0.2 per cent of GDP. Rising costs due to wage growth will erode a large proportion of the boost to general government finances from growth in tax revenues.

GDP growth in the second scenario matches that of scenario 1, but is assumed to arise from higher employment instead. The consequent MEUR 700 rise in tax revenues is then slightly smaller than under the first scenario, because payroll growth through employment does not increase the average rate of earnings taxation, assuming an even distribution of employment across various income categories. Indirect taxation impacts correspond to the first scenario.

<sup>3</sup> The scenarios described below are simplified in order to enable a straightforward description of the impact of economic growth on general government finances.

<sup>4</sup> This assumes closure of the output gap, with productivity growth attributed entirely to wages. On the other hand, a rise in wages will have no impact on the overall price level, as productivity growth will not lead to price pressures. Productivity and wage growth are likewise not expected to affect the demand for, or supply of labour.

<sup>5</sup> This scenario in turn assumes unemployment above the structural level, with no pay pressures caused by growth in employment.

<sup>6</sup> The impact of growth on general government finances has been analysed in the fiscal scenario model developed by the Ministry of Finance Economics Department.

The impact on general government spending differs significantly from the first scenario. Expenditure falls by MEUR 500 compared to the baseline under scenario 2. This decrease is mainly due to lower income transfers as unemployment falls. With no change in wages or prices<sup>7</sup>, there is no increase in other general government expenditures. General government finances are strengthened under the second scenario by EUR 1.3 billion, accounting for 0.5 per cent of GDP, which is substantially more than under the first scenario.

**Table 2. Impacts of scenarios on general government finances, EUR Bn**

|             | Scenario 1 | Scenario 2 |
|-------------|------------|------------|
| Revenue     | 1.0        | 0.7        |
| Expenditure | 0.6        | -0.5       |
| Net lending | 0.4        | 1.3        |
| % GDP       | 0.2        | 0.5        |

These two examples illustrate how diverse the impacts of economic growth on general government finances can be, depending primarily on how economic growth feeds through into public sector wages and economic cycle-related spending. Although rules of thumb may help in estimating the impact of economic growth on general government finances, consideration should be given to the structure of growth and to the general economic climate, which materially affect wage and price growth and how these feed through into general government finances.

<sup>7</sup> The second scenario assumes a negative output gap in which an improvement in employment does not affect wages.

## 2.1.1 Estimates of fiscal policy impact

General government fiscal policy will be slightly contractionary in 2018. The Government has decided on fiscal adjustment measures valued at some MEUR 700 targeted to the central government. These fiscal adjustments include, for instance, a freeze on indexations. Moreover, fiscal policy will tighten as a result of municipalities' fiscal adjustment measures. On the other hand, Government tax cuts will loosen fiscal policy.

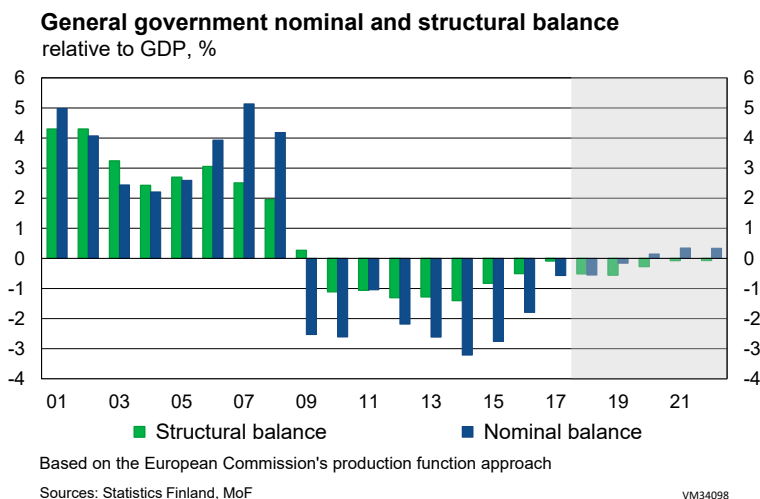
Tax rate is estimated to fall to about 42.5 per cent of GDP in 2018. The moderate fall in the tax rate is expected to continue in the next few years as the most important tax bases, including total wages and salaries and private consumption, will increase more slowly than GDP. The decrease in the expenditure rate that began in 2015 is also expected to continue in the coming years due to savings measures and decrease in cyclical expenditures.

Current fiscal policy stance can also be examined against changes in the structural budget balance as assessed using the EU harmonised method.<sup>1</sup> An assessment of the fiscal policy stance based on changes in the structural balance does not necessarily provide the exact same picture as an examination of individual revenue and expenditure measures. For example, increasing age-related expenditure weakens the structural balance over the forecast horizon even in the absence of any decisions to increase expenditure.

The structural balance is forecast to deteriorate moderately in 2018, which implies slightly expansionary fiscal policy. Rapid closure of the output gap, increasing age-related expenditure, and the elimination of non-recurrent tax revenues in 2017 contributes to the increase in the structural deficit. Fiscal policy may be regarded as slightly contractionary as of 2020, becoming neutral in 2022.

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<sup>1</sup> Structural balance is calculated by removing the cyclical effect from the public sector balance. The remainder describes the effect of the pursued policy and other than cyclical factors on the public sector balance. Changes in the structural balance thus describe changes in the overall fiscal policy stance. When the structural balance strengthens, fiscal policy is contractionary. On the other hand, when the structural balance weakens, fiscal policy is expansionary.



## 2.1.2 General government debt

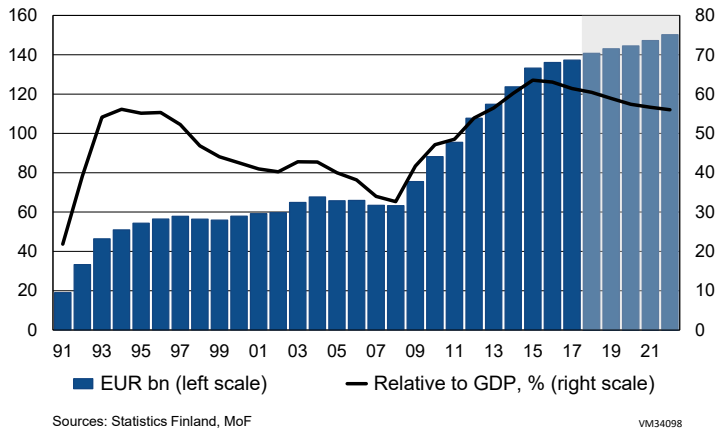
The debt of general government entities grew by EUR 1.2 billion last year, with the debt-to-GDP ratio falling by 1.6 percentage points to 61.4 per cent. The debt ratio fell for the second consecutive year. While the volume of debt will continue to grow in the 2020s, economic growth will reduce the debt ratio, which is already expected to fall below 60 per cent in 2019.

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

|   | 2016 | 2017 | 2018** | 2019** | 2020** | 2021** | 2022** |
|---|------|------|--------|--------|--------|--------|--------|
| Debt ratio, % of GDP  | 63.0 | 61.4 | 60.4   | 58.9   | 57.4   | 56.7   | 56.0   |
| Change in debt ratio  | -0.5 | -1.6 | -1.0   | -1.5   | -1.5   | -0.7   | -0.6   |
| <b>Factors impacting change in debt ratio</b>                               |      |      |        |        |        |        |        |
| Primary budgetary position  | 0.7  | -0.4 | -0.3   | -0.7   | -1.0   | -1.2   | -1.3   |
| 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  | 1.0  | 1.1    | 1.0    | 0.9    | 0.9    | 0.9    |
| Other factors <sup>1</sup>  | -1.6 | -1.0 | -0.1   | -0.1   | -0.1   | 0.5    | 0.6    |
| Change in GDP   | -1.9 | -2.2 | -2.5   | -2.5   | -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



Most public debt, about EUR 105 billion of the total, is debt of the central government budget economy. Consolidated central government debt amounted to EUR 115 billion in 2017. Local government debt totalled EUR 19 billion and social security funds owed about EUR 2.8 billion. Some local government functions will be transferred to counties in 2020. The forecast debt of counties at the end of 2020 is EUR 4.5 billion.

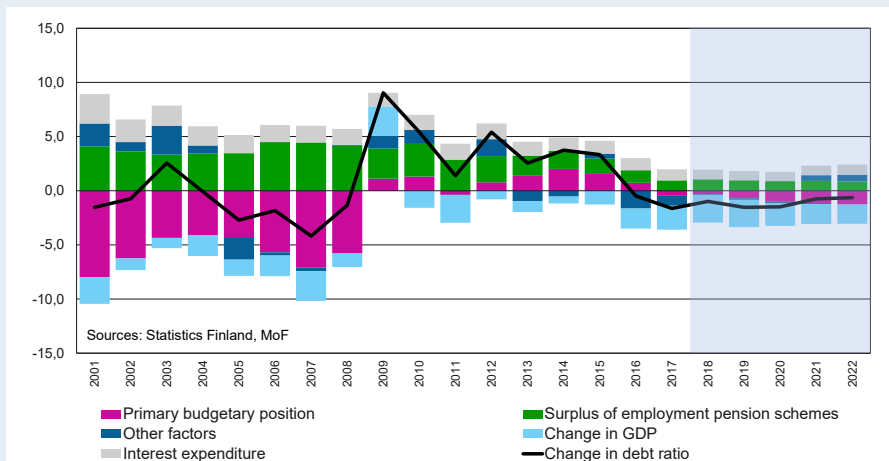
Some other items are also included in the public debt. For example central government debt includes the debts of several off-budget units and companies. Security deposits related to derivative instruments used for managing the central government debt portfolio, debts related to PPP projects, the capital assets of the State Nuclear Waste Management Fund, and coins in circulation are also included in the public debt. Local government debt also includes the debt of several companies owned by municipalities. The debt of the social security funds comprises the debts of the Unemployment Insurance Fund and cash securities related to the derivatives of earnings-related pension funds.

The change in the debt ratio was particularly influenced by GDP growth in the previous year, and the general government primary balance also improved clearly compared to 2016. Changes affecting the debt ratio are examined in the table below, and in more detail in the following info box.

## ECONOMIC GROWTH REDUCES THE DEBT RATIO OF GENERAL GOVERNMENT

The debt ratio of Finland’s general government grew by nearly 30 percentage points after the financial crisis, almost doubling between 2008 and 2015, and only eventually beginning to fall in 2016. The debt ratio will continue falling slowly over the outlook period, but even as it shrinks due to GDP growth and government consolidation measures, general government finances will continue taking on debt each year.

The factors affecting the change in the debt ratio can be analysed into the primary balance of public sector entities, interest costs, and the surplus of employment pension institutions, other factors and changes in the value of GDP. This breakdown is described in the following diagram, with positive items increasing and negative items reducing the debt ratio.



The deficit of general government comprises the primary balance and interest costs. General government has been in deficit since 2009, but will return to a slight surplus in 2020. The primary balance, i.e. the difference between revenue and outlays before interest costs in general government, has increased the borrowing requirement in almost every year of the current decade. The economic recovery and government consolidation measures have strengthened the primary balance and reduced the borrowing requirement in recent years. The impact of the primary balance has been to reduce the debt ratio since 2017.

Interest costs and their debt-increasing impact depend on the interest rate and the volume of debt. The impact of interest expenditure has diminished over the current decade and is now very low in historical terms, even though the volume of debt has increased. Government interest expenditure has fallen from 3.2 per cent in the year 2000 to 0.9 per cent of GDP in 2017 due to exceptionally low interest rates.

The difference between the deficit and change in debt is divided between the surplus of employment pension institutions and other factors. Thanks to the employment pension sector, the borrowing requirement of general government in Finland has almost always exceeded the deficit. The surplus of employment pension institutions cannot be used to cover central and local government deficits. The earnings-related pension sector surplus has shrunk due to ageing of the population and growth in pension expenditure, and a similar trend will also continue in future.

Examples of other factors affecting the debt include the sale and purchase of government financial assets, diminishing cash reserves and timing factors. These other factors have tended to reduce the debt ratio, especially in 2016 and 2017. Financing of fighter aircraft purchases will increase the debt ratio as of the year 2021, and this will appear in the national accounts deficit only later when the aircraft have been delivered.

Other factors are also affected by changes in the mutual debts of public sector entities, as the concept of public debt under consideration nets these debts off against one another. The investments of employment pension institutions in government bonds accordingly reduce the debt ratio. Lower investments by employment pension institutions have been increasing the debt ratio since turn of the century, when these institutions held about EUR 12.1 billion (8.9% of GDP) in government bonds. By 2016 these holdings had fallen to EUR 1.1 billion (0.5%). The government bond investments of employment pension institutions began increasing again last year.

GDP growth reduces the debt ratio, even with no change in the volume of debt. While the impact of GDP on the debt ratio has been weak due to slow economic growth and low inflation following the financial crisis, this impact again increased in 2016 to cut the debt ratio by nearly 2 percentage points. Indeed GDP growth has been the most important factor underlying the fall in the debt ratio in recent years, and this trend is also expected to continue.



## 2.2 Central government

The central government's financial position improved in 2017 compared to the preceding year. National accounts showed a financial position EUR 3.8 billion in deficit where the government was still EUR 5.8 billion in deficit in 2016. This improvement in central government finances was due to a significant increase in total revenues and a reduction in total expenditure. The main reason for the deficit reduction was brisk growth in tax revenues, especially from income and value-added taxes. The deficit was also reduced by one-off revenue measures. Government interest expenditures continued to fall compared to the preceding year.

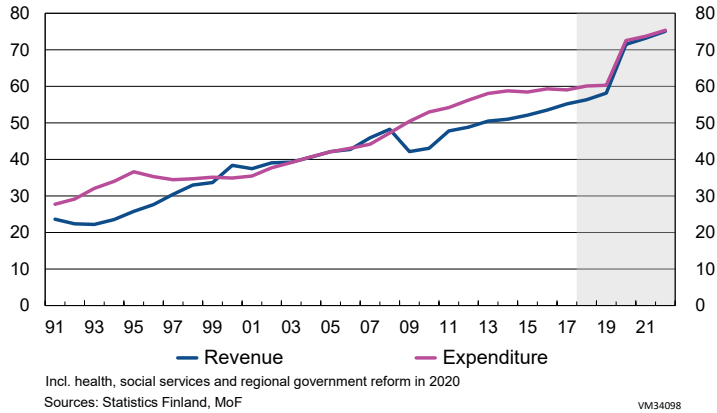
The central government's deficit decreases clearly slower in 2018 than in the previous year. Strong economic growth is creating the conditions under which the deficit can be reduced, but no one-off measures that strengthened last year's performance are known this year. Expenditure will also again exceed the level of the previous year. The government's key projects will peak in 2018, and the counties' ICT projects are beginning to increase total government spending. Wages paid by the government to employees will again exceed the levels of the previous year after several years of decline, and revenue transfers to municipalities and social security funds are increasing. Some factors pertaining to 2017 that reduced individual spending are also no longer effective this year.

Central government deficit will continue declining in the medium term, due to economic growth and government consolidation measures. Preparation of the reform of social services, health care and regional government and the establishment of counties in 2020 will also increase government spending, at least in the early stages.

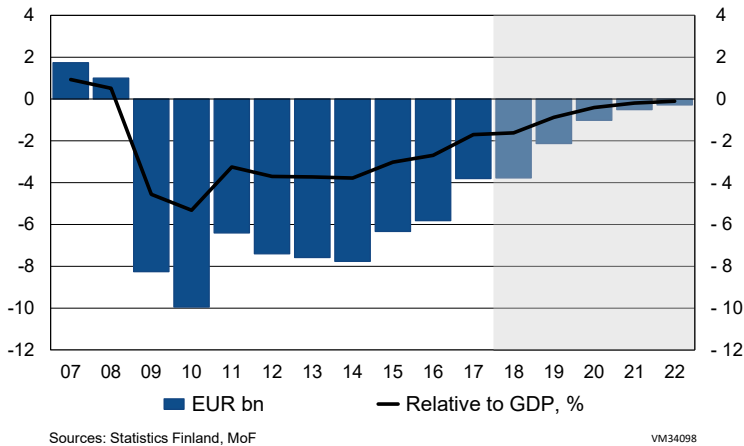
Central government debt stood at just under EUR 100 billion at year-end 2017. The state budget deficit is expected to continue to the end of the decade, so central government debt will continue to rise, but the rate of debt accumulation will slow considerably. It is estimated that central government debt will be EUR 115 billion, or 43 per cent of GDP, by 2022.

The central government's guarantees exceeded EUR 50 billion at year-end 2017, equivalent to nearly 93 per cent of budget expenditure. The guarantee portfolio grew by nearly EUR 6 billion. State guarantees include all guarantees issued by central government, state enterprises, state-owned joint stock companies and special

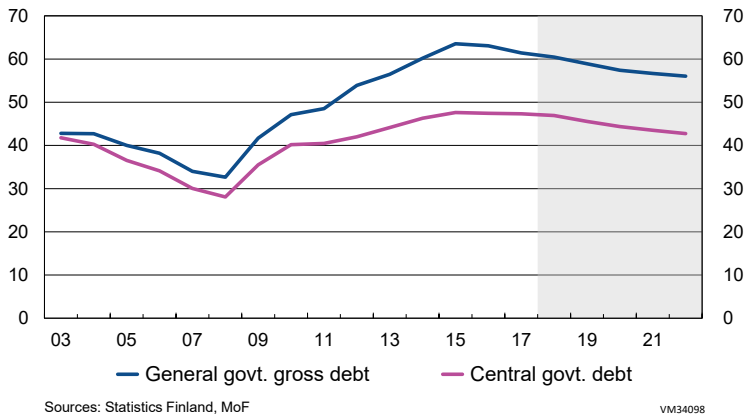
### Central government revenue and expenditure EUR bn



### Central government financial balance



### General government debt relative to GDP, %



credit institutions ultimately backed by central government. These guarantees are not an expenditure item and do not appear in the State Budget, unless the guarantees are called. The volume of government-issued guarantees has increased considerably over the last decade.

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

|   | 2015        | 2016 | 2017 | 2018** | 2019** | 2020** |
|---|-------------|------|------|--------|--------|--------|
|   | EUR billion |      |      |        |        |        |
| Current taxes   | 13.0        | 13.7 | 14.4 | 14.9   | 15.8   | 28.5   |
| Taxes on production and imports                             | 29.7        | 31.1 | 31.5 | 32.2   | 33.0   | 33.6   |
| 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 | 46.8 | 47.8   | 49.6   | 62.9   |
| Other revenue <sup>3</sup>                                  | 9.2         | 8.7  | 8.8  | 9.0    | 9.2    | 9.2    |
| of which interest receipts                                  | 0.4         | 0.3  | 0.3  | 0.3    | 0.3    | 0.4    |
| Total revenue   | 52.5        | 54.0 | 55.7 | 56.8   | 58.7   | 72.1   |
| Consumption expenditure                                     | 13.7        | 14.1 | 13.9 | 14.1   | 14.6   | 14.3   |
| Subsidies and current transfers, total                      | 38.2        | 38.8 | 39.3 | 39.7   | 39.4   | 51.8   |
| to general government                                       | 26.2        | 27.1 | 27.9 | 28.3   | 27.7   | 40.3   |
| Interest expenses   | 2.3         | 2.2  | 2.1  | 1.9    | 1.9    | 2.0    |
| Capital expenditure <sup>4</sup>                            | 4.7         | 4.7  | 4.3  | 4.8    | 5.0    | 5.1    |
| Total expenditure   | 58.8        | 59.8 | 59.5 | 60.6   | 60.9   | 73.1   |
| Net lending (+) / net borrowing (-)                         | -6.3        | -5.8 | -3.8 | -3.8   | -2.1   | -1.0   |
| Primary balance <sup>5</sup>                                | -4.4        | -3.9 | -2.0 | -2.2   | -0.5   | 0.6    |

1) As calculated in the National Accounts

2) Incl. capital taxes

3) Incl. capital transfers (excl. capital taxes) and consumption of fixed capital

4) Gross fixed capital formation and capital transfers

5) Net lending before net interest expenses

## 2.2.1 Central government expenditure

The central government expenditure shown in the national accounts totalled EUR 59 billion last year. Expenditure fell by MEUR 312, i.e. 0.5 per cent of the 2016 figure. MEUR 203 of this is a timing adjustment for EU contributions, so nominal total government expenditure remained virtually unchanged from the level of the preceding year. More than half of total central government expenditure comprises transfers to other sectors of the economy, in particular to municipalities and social security funds. About one quarter of all outlays are consumption expenditure, which is mainly personnel expenses and purchases of goods and services. Other outlays include investments, subsidies and interest payments.

Government consumption expenditure fell by 1.9 per cent and interest payments by 5 per cent, while government transfers increased by 1.2 per cent over the preceding year. The largest increase was in transfers to other social security funds. Current transfers were increased by changes in income support, student and housing allowances, and by central government compensation paid to the sickness insurance fund in relation to a change in the employer's sickness insurance premium agreed in the Competitiveness Pact.

Moderate growth in government expenditure is also expected to continue over the next few years. The growth in expenditure will be curbed by the gradual increase in consolidation measures of the government programme and by the removal of extra costs arising from flagship projects in 2019. The reductions in employer contributions agreed in the Competitiveness Pact and temporary cuts in holiday bonuses have reduced the remuneration paid to government employees in recent years. The end of the temporary cuts in holiday bonuses will correspondingly increase employee remuneration in 2019.

Investment is expected to grow most rapidly in 2018, with government investments in flagship projects and trunk road maintenance reaching their peak as development of the counties' ICT systems begins. The flagship project additions will have ended by 2019, but procurements by the Defence Forces will maintain the investment level. On the other hand, the fighter aircraft procurement – for which preparations have been made in government spending frameworks as of 2020 – will not increase government investment over the outlook period. As national accounts are drawn up on an accrual basis, these outlays are recorded in the outlook for the year in which the fighter aircraft are delivered.

Interest payments will remain minimal over the outlook period due to low interest rates.

Government spending will be restructured as of 2020 when new counties begin operating. Counties will finance their operations through central government transfers, increasing total government spending.

## SPENDING LIMITS MAINTAINED DESPITE THE SPENDING PRESSURES

The growth of government budget spending is governed by the spending rule set out in the government programme, which imposes a ceiling on some 80 per cent of budgeted expenditure. Strengthening general government finances is a key fiscal policy of the present government, and a decision on immediate consolidation measures to strengthen public finances was accordingly included in the government programme. The expenditure ceiling set at the start of the government's term of office for the period 2016–2019 was determined with a view to achieving the expenditure reduction agreed in the government programme. The government programme noted that spending limits in 2019 were EUR 1.2 billion lower than in the last technical framework decision taken by the previous government. The limits for the electoral period are set in real terms and adjusted annually for changes in price and cost levels, which have averaged some MEUR 300 in recent years. Growth of expenditure in 2016 and 2017 has remained within the framework for the electoral period, as noted in the reports of the National Audit Office (VTV) and elsewhere.

Even though the spending limits have held, nominal increases have occurred in government budget spending. Total budgeted expenditure this year is some EUR 2 billion higher than the budget for 2015. Many other factors besides spending limits influence the growth of budgeted government expenditure. For example the level of benefit outlays will change according to variations in the number of beneficiaries, and the margin of appreciation conferred by annual price adjustments to the framework will be allocated in a discretionary manner.

The factors underlying expenditure growth since 2015 are examined below. These relate partly to the implementation of government programme policies, such as temporary increases in appropriations for flagship projects in 2016–2018. The impact of flagship project financing on 2018 expenditure is approximately EUR 0.7 billion. The impact of savings decisions made under Annex 6 to the government programme is not yet fully visible. Budgeted spending in the 2018 budget would be more than EUR 1 billion higher without these decisions.

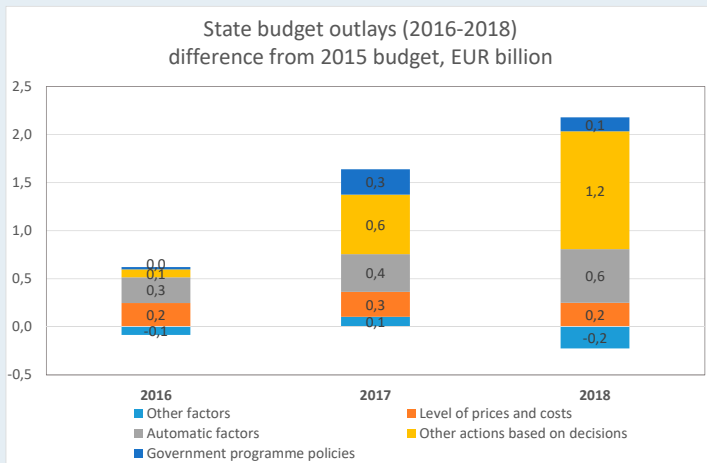
Changes in price and cost levels have so far increased total spending during the current government term by between EUR 0.2 and 0.3 billion at the 2018 level. The largest single background factor is the revision of cost sharing between central and local government, and index adjustments to pension expenditure have also increased outlays. The upward pressure has been mitigated by government savings decisions discontinuing index adjustments. Adjustments related to price and cost levels have curbed inflation and the rise in earnings levels to a slower than usual rate.

Automatic factors in budgeting proper have increased expenditures by about EUR 0.6 billion at the 2018 level over the government's term of office. The impact of automatic factors characteristically arises insofar as current legislation largely determines the need for appropriations, minimising the scope for political discretion. The largest single

background factors include the central government contribution to expenditures arising from the Sickness Insurance Act (EUR 0.2 billion), pension expenditure (EUR 0.4 billion), and statutory government transfers to municipalities for organising basic public services (EUR 0.2 billion). These developments are partly explained by the changing age structure, which is manifest both in the number of retirees and in the increase in health care expenditure. Expenditure needs arising from immigration have also increased appropriations, especially at the beginning of the government's term of office. Immigration-related expenditure in budgeting proper is nearly EUR 0.3 billion higher in 2018 than in the period before the present government took office. On the other hand, the fall in unemployment following the economic upturn is helping to mitigate upward pressure on expenditure attributed to automatic changes. Exceptionally low interest rates have also reduced debt servicing costs, with interest expenditure in the 2018 budget EUR 0.5 billion lower than at the beginning of the government's term of office.

The other changes arising from decisions of the present government are based on policy discretion formulated in terms of both size and allocation after the government programme was published. Other discretionary changes in the budgets for 2016 to 2018 are estimated to have increased total net expenditure by EUR 1.2 billion. Some other important factors include preparation of the reform of social services, health care and regional government and investments in freedom of choice pilot projects, highways and security needs. The scale of other changes based on government decisions and related to the government programme indicates the impact of political priorities and choices on expenditure growth.

The budgeting materials for 2016-2018 provide no basis for any direct forecast of the proportion of expenditure increases that would characteristically also be reflected in later years. The extent to which decisions made in previous budgets of the government require additional resources compared to 2018 will be visible when preparing the 2019 budget.



## CENTRAL GOVERNMENT ON-BUDGET ACCOUNTS AND EXPENDITURE IN 2019-2022

The spending limits decision that is included in the April 2018 general government fiscal plan, and that reviews the growth of central government on-budget accounts and expenditure in 2019–2022, is based on the fiscal policy objectives adopted in the government programme and on the government’s three previous decisions on spending limits. The single most significant change over the budget-planning period is the reform of social services, health care and regional government, which will substantially increase on-budget expenditure and revenue as of 2020. On-budget expenditure will reach EUR 73 billion at current prices by the end of the planning period in 2022, with revenues remaining at slightly less than EUR 72 billion. The annual on-budget deficit is forecast to average approximately EUR 1.3 billion over the planning period.

The reform of social services, health care and regional government will involve a transfer of social and health care services and certain other functions from municipalities to counties, whose operations will be funded from the central government budget. Municipal tax rates will be reduced by 11.7 percentage points from the beginning of 2020 as the functions of local authorities decline, with a corresponding increase in central government taxes. Tax base changes will nevertheless respect the principle of ensuring that no taxpayer pays increased taxes due to the reform. This will result in a tax reduction of some MEUR 225. The share of corporate income tax apportioned to local government will also fall by 9.02 percentage points at this time. This will increase central government tax revenues by EUR 0.6 billion at the 2020 level. The reform of social services, health care and regional government will also increase on-budget VAT revenue by EUR 1.3 billion at the 2020 level, with the VAT refunds of municipalities also falling as their functions decline. The VAT refunds received by counties will be entered as on-budget expenditure, so the reform of social services, health care and regional government will have no VAT impact on the on-budget balance, even though it will technically increase VAT revenues. The full effects of the tax base changes associated with the reform of social services, health care and regional government will not be seen in on-budget revenue until 2021 due to timing factors. This is because the previous year’s tax bases are still applied in taxation for January.

The total impact of the reform of social services, health care and regional government on on-budget tax revenues will be EUR 12.4 billion at the 2020 level. On-budget expenditure will increase by some EUR 13 billion at this time, but the expenditure items will appear in the on-budget balance slightly more quickly than the revenue items due to timing factors.

Annual average GDP growth is forecast at 2.2 per cent between 2018 and 2022, but economic growth is expected to slow down in the medium term. The growth of tax bases will be determined by general economic activity. Excluding the effects of the reform of social services, health care and regional government, average annual growth

in tax revenues would be 2.8 per cent and total on-budget revenues would increase by an annual average of 2.0 per cent. The most rapid increase in tax revenues will occur in the early part of the period under review. Growth in the number of people in work and growing business income will be reflected in higher revenues from taxation of earnings and capital income and from corporate income tax.

The reform of social services, health care and regional government will not only increase overall expenditure, but also necessitate a number of intrabudgetary transfers as counties assume responsibility for providing health care and social services, together with certain other functions previously discharged by municipalities and central government. At the start of the budget planning period additional funding will be allocated to preparing and administering the reform of social services, health care and regional government, which will also require substantial modifications to data administration and information systems. Just about MEUR 200 will be allocated in 2019 towards the costs of establishing the provincial authorities.

Economic trend-related expenditure is forecast to fall during the budget planning period as the employment situation improves. Financing of strategic performance capability projects for the Defence Forces will increase expenditure at the end of the budget planning period. Though a moderate upturn in the general rate of interest is expected, an exceptionally low rate should nevertheless continue. This will be manifest as a slight upturn in interest expenditure over the budget planning period, but interest costs will still be only EUR 1.5 billion in 2022. Excluding the changes caused by the reform of social services, health care and regional government, a nominal increase in annual on-budget expenditure is forecast, averaging about 1½ per cent over the budget planning period.

### **Comparisons with previous spending limits**

Tax revenues have grown substantially faster than anticipated compared to spending limits from one year ago. Economic activity and tax base growth have proved stronger than previously forecast. This is most clearly manifest in revenues from corporate income taxation and taxation of earnings and capital income.

The general economic upturn is reducing government unemployment outlays compared to the previous spending limits decision, but statutory cost changes such as the government pay settlement will increase the spending level.



**Factors impacting change in central government on-budget balance compared with spring 2017 general government fiscal plan / Spending Limits Decision, EUR billion**

|   | 2019        | 2020        | 2021        |
|---|-------------|-------------|-------------|
| <b>Balance projection, government budget plan 2018–2021, 28 April 2017</b>  | <b>-4,2</b> | <b>-2,5</b> | <b>-3,6</b> |
| <b>Revisions to expenditures</b>  |             |             |             |
| Supplementary costs of transport projects decided after the previous plan of general government finances            | -0,1        | -0,1        | 0,0         |
| Change in needs estimates for government unemployment benefit outlays   | 0,2         | 0,4         | 0,3         |
| Statutory and contractual indexation adjustments, including salary settlement                                       | -0,3        | -0,3        | -0,3        |
| Government sector VAT appropriations  | 0,0         | 0,0         | -0,2        |
| Revision of local government cost allocations   | 0,2         | 0,0         | 0,0         |
| Contributions to the European Union   | -0,1        | -0,1        | -0,2        |
| Other changes (net)   | 0,5         | -0,5        | 0,3         |
| <b>Revisions to revenues</b>  |             |             |             |
| New tax base changes (including postponement of the reform of social services, health care and regional government) | 0,2         | 0,0         | 0,0         |
| Change in projected income from miscellaneous revenue and interest, dividends and share trading returns             | 0,2         | 0,1         | 0,1         |
| Other factors affecting projected revenues (including accrual data and new economic outlook)                        | 2,1         | 2,0         | 2,2         |
| <b>Total change</b>   | <b>2,9</b>  | <b>1,5</b>  | <b>2,2</b>  |
| <b>Balance projection, government budget plan 2019–2022, 13 April 2018</b>  | <b>-1,3</b> | <b>-1,0</b> | <b>-1,4</b> |

## 2.2.2 Central government revenues

The greatest part of central government expenditure is funded out of tax revenue. The most significant tax revenues are taxes on earned and capital income, value-added tax and corporate income tax. The emphasis in taxation has shifted from direct to indirect taxes in recent years.

Government tax revenues increased particularly well in 2017 despite a significant cut in taxation rates. Strong economic growth boosted government revenues, which also benefited from one-off measures such as exceptionally high yields from corporate income tax and from inheritance and gift tax. A good level of household consumption also boosted accruals from value-added tax.

Favourable economic growth and employment trends continued to be strong this year, sustaining growth in government revenue. The most important change in the tax base was a further reduction in taxation of labour. A decent rate of growth in government revenues will continue throughout the entire outlook period.

**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           | 2.7                | 3.5    | 3.3    | 3.3    | 3                |
| Wage and salary earnings and other income          | 2.6                | 3.7    | 3.5    | 3.5    | 3½               |
| Pensions and other social security benefits        | 1.6                | 2.0    | 2.6    | 2.7    | 2½               |
| Capital income                                     | 6.8                | 4.8    | 3.7    | 3.4    | 3½               |
| Index of wage and salary earnings                  | 0.2                | 1.9    | 2.5    | 2.8    | 2½               |
| Operating surplus                                  | 12.5               | 8.8    | 8.0    | 5.7    | 6                |
| Value of household taxable consumption expenditure | 2.3                | 3.0    | 2.6    | 3.1    | 3                |
| VAT base   | 2.4                | 3.4    | 2.9    | 2.9    | 3                |
| Petrol consumption                                 | -2.4               | -2.5   | -2.3   | -2.0   | -2½              |
| Diesel consumption                                 | -0.7               | 0.4    | 0.4    | 0.3    | 0                |
| Electricity consumption                            | 1.2                | 3.6    | 0.3    | -0.0   | 7/8              |
| Duty-paid alcohol consumption                      | -1.2               | 1.8    | 0.4    | -0.5   | 1/7              |
| New passenger cars                                 | 116300             | 128000 | 130000 | 133000 | 132200           |
| Consumer price index                               | 0.7                | 1.2    | 1.4    | 1.7    | 1½               |

While most of the fiscal policy measures outlined in the government programme of Prime Minister Juha Sipilä have already been realised in 2016-2018, some measures will be implemented gradually throughout the government's term of office. The programme for 2019 will continue the rise in tobacco taxation, reduction in the deductibility of interest on housing loans and reduction in motor vehicle taxes.

The principal tax base changes affecting government tax revenues over the next few years pertain to the reform of social services, health care and regional government that will take effect in 2020. This reform will transfer responsibility for arranging social and health care services from municipalities to counties, with the associated financial liability moving from municipalities to central government. Municipal revenues will be reduced to match the reassigned costs by cutting statutory government transfers, the municipal share of corporate income tax revenues, and municipal taxes. The central government share of corporate income tax revenues will increase and central government taxation of earnings will rise to match the reduction in municipal taxation.

The reform will nevertheless ensure that no individual pays higher taxes due to these transfers, so taxes on earned income will be moderately eased from the beginning of 2020.

Other sources of central government revenue include property income and transfers from the State Pension Fund. Budget entries by the state investment company Solidium, which is classified as part of the central government sector, do not appear as central government revenue in national accounting. Dividends received by Solidium, on the other hand, are entered as central government revenue. A transfer from the State Pension Fund is used to cover part of central government pension expenditure. Central government property income is forecast to remain at some EUR 1.7 billion over the outlook period. Central government dividend revenue will increase this year, with interest revenue remaining at a historically very low level.

## Direct taxes

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

Revenue from earned income and capital income taxes will continue growing in 2018 due to a highly favourable employment trend that is boosting wage income. On the other hand, growth in tax revenues will be curbed by the tax cuts that have taken effect since the beginning of the year, and by a fall in taxable unemployment benefits as employment improves.

Growth in revenue from earned income and capital income taxes will remain strong in the medium term, as pay growth is reasonable and the steady increase in pension revenues is continuing. Pension revenues will increase more rapidly than pay at the end of the outlook period, as the projected indexation increases in pensions will be higher than before while employment growth will slow down.

**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      | 405, of which central govt. 122 and local govt. 189 |
|                             | Pension incomes                      | 1-pp      | 130, of which central govt. 34 and local govt. 85   |
| Capital income tax          | Investment income                    | 1-pp      | 36  |
| Corporate tax               | Operating surplus                    | 1-pp      | 56, of which central govt. 38 and local govt. 17    |
| VAT                         | Value of private consumption         | 1-pp      | 123   |
| Car tax                     | Sales of new cars                    | thousands | 6   |
| Energy tax                  | Electricity consumption <sup>1</sup> | 1%        | 9   |
|                             | Petrol consumption                   | 1%        | 13  |
|                             | Diesel consumption                   | 1%        | 14  |
| Duty on alcoholic beverages | Alcohol consumption                  | 1%        | 15  |
| Duty on cigarettes          | Cigarette consumption                | 1%        | 9   |

<sup>1</sup> excl. manufacturing industries, datacenters and greenhouses

The forecast of earned income and capital income tax assumes that index adjustments will be made in 2019–2022 to ensure that labour taxation does not increase due to higher earnings or inflation.

Although revenues from corporate income tax grew very rapidly last year, this was partly due to a non-recurrent increase in yield. Steady and strong growth in revenues from corporate income tax will continue over the outlook period. Central government revenue from corporate income tax will increase as the share of corporate income tax revenue apportioned to municipalities is transferred to central government in 2020. There will be no changes to the corporate income tax base in 2018–2022.

The tax base for withholding tax on interest income consists mainly of household income from interest-bearing deposits. Revenue from withholding tax on interest has fallen in recent years due to very low interest rates. The tax yield is expected to increase gradually as interest rates rise.

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

|  | 2017                                   | 2018**                                       | 2019**      | 2020**      | 2021**      | 2022**      | 2022/2018**                        |
|--|--|--|-------------|-------------|-------------|-------------|------------------------------------|
|  | provisional<br>financial ac-<br>counts | budget<br>incl. supple-<br>mentary<br>budget | EUR billion |             |             |             | annual<br>change,<br>EUR billion % |
| Total tax revenue estimates                  | 43.1                                   | 44.0   | 45.9        | 59.4        | 61.9        | 63.7        | 8½                                 |
| Income and wealth taxes                      | 14.3                                   | 14.5   | 15.4        | 27.1        | 28.9        | 30.1        | 19                                 |
| Taxes based on turnover                      | 18.5                                   | 18.9   | 19.8        | 21.5        | 22.3        | 23.0        | 4½                                 |
| Excise duties                                | 7.0                                    | 7.4  | 7.4         | 7.4         | 7.3         | 7.3         | ½                                  |
| Other taxes                                  | 3.3                                    | 3.2  | 3.3         | 3.4         | 3.4         | 3.4         | ½                                  |
| Miscellaneous revenue                        | 5.5                                    | 5.5  | 5.7         | 5.7         | 5.7         | 5.7         | ½                                  |
| Interest income and profit entered as income | 2.1                                    | 2.8  | 1.9         | 1.9         | 1.9         | 1.9         | -½                                 |
| <b>Total revenue estimates</b>               | <b>51.3</b>                            | <b>52.7</b>                                  | <b>53.8</b> | <b>67.3</b> | <b>69.9</b> | <b>71.6</b> | <b>7</b>                           |

## Indirect taxes

VAT revenue accounted for more than EUR 20 billion in the 2017 national accounts, with rising household consumption expenditure boosting VAT revenue growth. The Finnish Tax Administration replaced the Customs as the authority responsible for levying VAT on imports following a change to VAT collection regulations at the start of the year. VAT revenues in national accounting will grow by an average of more than 3 per cent annually over the next few years.

Total projected revenues from excise duty are forecast to remain very moderate in the medium term, with a fall anticipated in the tax base for excise duties, due largely to the guiding effect of taxation. The tax on motor and heating fuel was increased at the start of the year. Tobacco tax has been gradually increased during government's term of office, with the final tax rise to be implemented in 2019.

Motor vehicle tax revenues are expected to fall over the outlook period, due to reductions in motor vehicle taxation rates under the government programme and to anticipated further reductions in carbon dioxide emissions from new motor vehicles. Motor vehicle taxation depends on the general re-tail sale value of the vehicle on the Finnish market and on carbon dioxide emissions, so a cut in emissions reduces the tax rate for new vehicles. Motor vehicle taxation will be gradually reduced over the government's term of office by a total of some MEUR 182, of which MEUR 65 will be implemented in 2019.

**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   | -100   | -605   | -422   | -403   |
| 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      | 14     | 45     | 0      | 0      |
| Other direct taxes                     | -1          | -57    | -63    | 1      | 1      | 2      |
| Value-added tax                        | -156        | -184   | 0      | 0      | 0      | 0      |
| Energy taxes                           | 116         | 47     | -2     | 0      | 0      | 0      |
| Other indirect taxes                   | 140         | 160    | 78     | 34     | 0      | 0      |
| Social security contributions          | -1033       | -381   | -47    | -6     | 23     | -8     |

### 2.2.3 On-budget accounts and national accounts

The government budget deficit was EUR 3.7 billion in 2017. Preliminary national accounting data suggest that the total deficit of central government was EUR 3.8 billion. The on-budget and national financial positions corresponded exceptionally closely by comparison with previous years.

There is generally no direct way to infer the financial position of the government according to national accounts from the on-budget financial position. Nor is it always possible to infer government borrowing from the budget deficit. Net borrowing by the Finnish State Treasury totalled EUR 3.1 billion in 2017, which was MEUR 600 less than the budget deficit would have required. Broadly speaking, there are several reasons for the difference between deficit and the change in debt. Last year this difference was due in particular to transfers of appropriations and the use of liquid assets.

There are many reasons for the difference between the on-budget financial position and the financial position of the government according to national accounts. The most important of these is that the central government sector of the national accounts is broader than the on-budget economy alone, which mainly includes government agencies. In addition to the on-budget economy, the central government sector of the national accounts includes state funds (excluding the State Pension Fund), the universities and their real estate companies, and Senate Properties. Decisions on the classification of public units are reviewed regularly. For example the service centre Vimana Oy and the national special assignment company Sotedigi Oy were classified within the central government sector last year. All units belonging to the central government sector and classed as public sector entities more broadly are listed on the website of Statistics Finland.

Another source of discrepancy besides classification is the difference in accounting criteria used for recording outlays in the national accounts and in the on-budget economy. The accounts are accrual-based, whereas the on-budget economy is partly cash-based. The accounting criteria lead, in particular, to a discrepancy between outlays in the budget and in the accounting caused by deferrable on-budget appropriations, which are two or three-year grants entered in the budget for one year only. Deferrable appropriations are entered in the national accounts on an accrual basis according to their year of use in the same way as other outlays. The net effect of deferrable appropriations may vary widely from year to year. Taxes, subsidies and

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

|   | 2016        | 2017 | 2018** | 2019** | 2020** |
|---|-------------|------|--------|--------|--------|
|   | EUR billion |      |        |        |        |
| On-budget surplus (+)/deficit (-) <sup>2</sup>          | -4.9        | -3.7 | -3.0   | -1.3   | -1.0   |
| Privatization proceeds (net proceeds from equity sales) | -0.1        | -0.1 | -0.8   | -0.2   | -0.2   |
| Financial investment, net                               | -0.8        | -0.9 | -0.6   | -0.6   | -0.6   |
| 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    | 0.2    | 1.0    |
| Other adjustment items <sup>3</sup>                     | 0.2         | 0.3  | 0.4    | -0.1   | -0.2   |
| Central government net lending (+) /-borrowing (-)      | -5.8        | -3.8 | -3.8   | -2.1   | -1.0   |

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

EU contributions are converted into accrual-based accounting entries by making timing adjustments, with the magnitude of discrepancies so caused becoming apparent only later.

The incomes and outlays of the on-budget financial position also include such financial investments as loans issued and repaid by the government, and share sales and acquisitions that are primarily treated as financing transactions in the national accounts. Financing transactions do not affect the government's financial position in the accounts. They also include the derivatives that have enabled the Finnish State Treasury to significantly reduce interest expenses payable from the budget. As the accounts disregard the effect of derivative agreements in reducing interest expenses, the interest expenses shown in the accounts are clearly higher than those of the budget.

EU countries advise Eurostat on the differences between their on-budget and national accounts figures twice annually in their deficit and debt reporting. For past years it should be possible to give a good explanation of the difference between the position shown in the government financial statement and net lending shown in the national accounts. This requirement also applies to other sectors of general government finances. This reporting also clarifies the "debt dynamics", i.e. the congruence of net general government lending and the change in public debt. The first reporting round of 2018 occurred at the end of March.



## 2.3 County finances

In the course of reforming social services, health care and regional government 18 counties will be established in mainland Finland and assigned responsibility for organising social and health services, together with several other functions formerly discharged by municipalities and central government. The new authorities will begin operating at the start of 2020.

Counties have been differentiated into a separate sector for the purposes of this public finances outlook. Statistics Finland will determine the final sectoral classification of counties in the national accounts. In this outlook the county sector includes the counties and unincorporated county enterprises, companies owned by counties, and national service centre companies.

A more detailed study of outlook formulation for county finances was included in the autumn 2017 economic review. The outlook has been updated to reflect the latest funding and expenditure details for the functions assigned to counties. The expenditure structure has also been updated to match the latest statistical information, and a separate solution has been included for growth services in the Uusimaa region.

Regional administration will be the target of growing demand for health and social services caused by ageing of the population, and these authorities will have to work efficiently from the very outset to ensure that their costs do not grow more rapidly than their funding.

The counties will incur additional costs for launching and organising their work at the outset, imposing an additional challenge for enhancing operations. Expenses may be incurred in such areas as the administrative costs involved in launching operations, harmonising of pay and client fees, the costs of ICT changes, and growth in accommodation costs. Though some of these costs are non-recurrent, such areas as pay harmonisation may permanently increase spending of counties. Transition cost estimates still involve substantial uncertainty, and it is not yet possible to incorporate them into this outlook, for which they remain a cost risk.

The financial position of the county sector remains in deficit, due in particular to substantial investment in operating premises. The balance of counties will also be weakened by halving of the 2021 financing index. The outlook makes no assumptions regarding consolidation measures of counties, new practices or streamlining of operations, with expenses and financing following their own growth dynamics. The outlook also makes no assumptions regarding behavioural impacts of the reform, such as its potential impact on demand for public services.

A significant number of initiated or planned investment projects from hospital districts will be transferred to counties. The financial plans of hospital districts indicate that their investment outlays will reach a record level in 2019, although some of the planned investments are still awaiting an investment permit. The level of investment in 2020 is estimated at EUR 0.8 billion, with investment increasing further in 2021 and declining only thereafter. Some MEUR 150 in annual central government investment also comprises ICT investments of counties.

The income of counties mainly comprises central government funding together with revenues from sales and charges. The total revenue of counties will reach some EUR 23.0 billion by 2020, mostly covered by central government funding. The other revenues of counties amount to approximately EUR 3.3 billion.

Central government funding of counties comprises general funding, value-added tax refunds, sales revenues and central government grants, and special central government funding. The special funding received from central government and its associated outlays are not classified under the county sector, as most special funding relates to functions in which the county serves merely as a financial intermediary.

**Table 25. County finances**

|  | 2020**      |
|--|-------------|
| Transfers from central government          | 19.7        |
| Other revenue                              | 3.3         |
| <b>Total revenue</b>                       | <b>23.0</b> |
| Consumption expenditure                    | 19.5        |
| Current transfers and othe expenditure     | 1.0         |
| Capital expenditure                        | 0.8         |
| <b>Total expenditure</b>                   | <b>24.0</b> |
| <b>Net lending (+) / net borrowing (-)</b> | <b>-1.0</b> |
| Debt                                       | 4.5         |

The total outlays of counties will be some EUR 24.0 billion in 2020. More than 90 per cent of these expenses relate to purchases of goods and services or to staffing costs. Other significant outlays include investments and social benefits.

Besides acquiring the assets of hospital districts, the county sector will also take on a substantial volume of debt, estimated at some EUR 4.5 billion as of the end of 2020. This sum is larger than the current debt of hospital districts, as it is boosted by hospital district investments over the next few years. Estimates in 2017 financial statements show clear growth in the hospital district investment portfolio. Most of the debt will pass to Maakuntien tilakeskus Oy, a company owned by counties and central government.

## 2.4 Local government

Preliminary national accounts figures indicate a deficit of 0.1 per cent of GDP in the local government sector last year. Local government net lending has recently been stronger at the turn of the century. Total local government expenditure fell slightly in 2017, due in part to a fall in employee remuneration significantly resulting from a fall in the rate of employer's social security contributions. Local government spending also fell due to a transfer of responsibility for disbursing basic social assistance from the municipalities to Kela, but this transfer had no real impact on local government net lending, as a corresponding reduction occurred in statutory state subsidies to municipalities. Local government investment expenditure growth continued last year, due in part to increased hospital construction.

Total local government revenue grew slightly in 2017 despite a fall in statutory state subsidies due to the reassignment of responsibility for disbursing basic social assistance and savings associated with the Competitiveness Pact. The economic upswing was nevertheless visible as higher-than-anticipated growth in municipal tax revenues for 2017. Corporate income tax revenues grew exceptionally well, partly due to a non-recurrent factor as increased real estate tax revenues were generated by a government decision to increase the lower and upper limits of real estate tax for 2017.

## **Local government financial position deteriorating until reform of social services, health care and regional government**

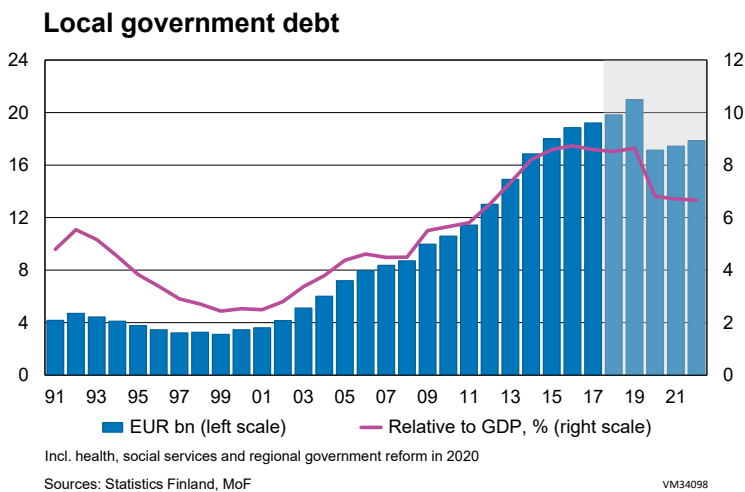
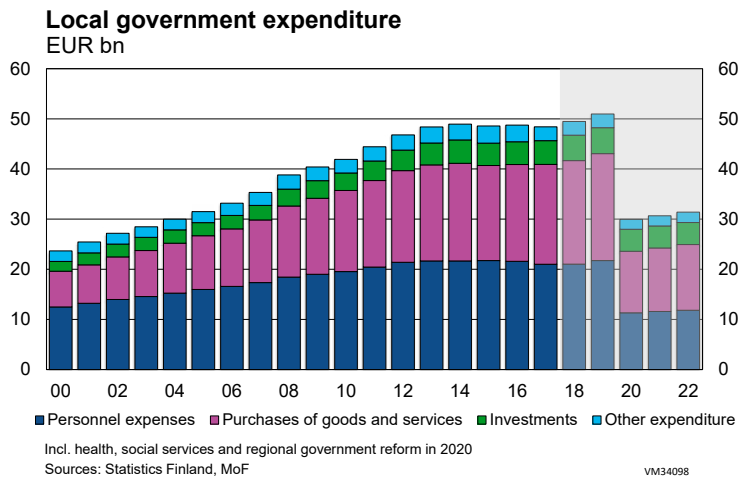
The financial position of local government will deteriorate slightly this year. Consumption expenditure will rise due to such factors as higher costs of care and treatment for an ageing population, increasing earnings in the municipal sector, and a fall in early childhood education charges for low and middle-income families at the beginning of 2018. Budgets for 2018 suggest that consolidation measures by municipalities will focus on measures to curb expenditure growth. The findings of a staff savings survey conducted by the Commission for Local Authority Employers (KT) suggest that consolidation measures in municipal finances will mainly rely on natural wastage and on reorganising and streamlining of work, with efforts made to avoid layoffs and redundancies. The in-house consolidation measures of municipalities and joint municipal authorities in 2018 are nevertheless falling short of those taken over the preceding few years.

A fall in the average rate of local government tax caused largely by tax cuts in Helsinki will curb growth in local government tax revenues in 2018. Growth in corporate income tax revenue will also remain moderate, as the exceptionally high growth last year was due to non-recurrent factors that will no longer have any impact in 2018. Growth in real estate tax revenue is lagging behind the historical trend following the cancellation of planned increases for the lower limits of real estate tax.

The outlook for local government in 2019–2022 only considers already specified measures affecting local government finances that are included in the spring 2018 general government fiscal plan. The assessment does not take account of municipalities' and joint municipal authorities' fiscal adjustment measures for 2019–2022. These measures will be considered on the outlook after completing the budgets. The average municipal tax rate is also assumed to remain at the level of 2018. The outlook has allowed for the reform of social services, health care and regional government by differentiating the functions that will be transferred from local government to counties as of 2020.

The financial position of local government will further deteriorate in 2019 with the growing need for social and health care services and a decline in the mitigating impact of local government financial consolidation measures on expenditure growth. The pay rises that were agreed in the local government sector at the beginning of 2018, and will mostly take effect in 2019, will also increase local government con-

sumption expenditure. Payroll costs will also be increased by the end of the temporary holiday bonus cut that was agreed in the Competitiveness Pact, largely with effect from 2019. Investment expenditures will also continue to grow, as the financial plans of hospital districts indicate that their investment outlays will reach a record level in 2019. Growth in local government revenue will remain correspondingly moderate. Factors limiting revenue growth will include a revision of cost sharing due to a fall in statutory government transfers and freezing of the associated index until 2019 in accordance with the government programme.



Upward pressures on local government consumption expenditure accompanying the reform of social services, health care and regional government will be eased as local government functions begin to focus more strongly on education. Expenditure pressures on social and health services will be considerable as the population ages, but there will be no corresponding pressures on the remaining municipal functions. The financial position of local government relative to GDP will be only slightly in deficit as of the year 2020.

The investments of hospital districts amounting to some EUR 0.8 billion will be transferred from local government to the counties at the time of the reform of social services, health care and regional government. Hospital district debts of some EUR 3.5 billion will also pass from local government to counties. This transferred sum is larger than the current debt of hospital districts, as it is boosted by hospital district investments over the next few years. The debt of local government relative to GDP will fall gradually as of the year 2021.

### **Local government accounting and national accounts: how they differ**

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

The most important conceptual difference is due to sector definitions. Local government accounting is concerned with municipalities, joint municipal authorities and their commercial institutions, and excludes municipal operations conducted by an independent legal entity, for example in the form of a limited liability company. The definition of the local government sector in the national accounts, on the other hand, does include enterprises owned by municipalities, mainly treating them as units serving their parent entity.

**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        | 23.2        | 24.3        | 12.7        |
| of which municipal tax                           | 18.6        | 18.7        | 19.1        | 19.5        | 20.4        | 9.2         |
| corporate tax                                    | 1.7         | 1.5         | 1.9         | 1.9         | 2.1         | 1.5         |
| real estate tax                                  | 1.6         | 1.7         | 1.8         | 1.8         | 1.9         | 1.9         |
| Other revenue <sup>2</sup>                       | 18.5        | 18.9        | 18.5        | 18.9        | 18.7        | 11.4        |
| of which interest receipts                       | 0.3         | 0.3         | 0.3         | 0.3         | 0.3         | 0.3         |
| transfers from central government                | 13.7        | 14.3        | 13.7        | 14.0        | 13.6        | 6.5         |
| <b>Total revenue</b>                             | <b>40.3</b> | <b>40.9</b> | <b>41.3</b> | <b>42.1</b> | <b>43.0</b> | <b>24.0</b> |
| Consumption expenditure                          | 33.8        | 34.0        | 34.0        | 34.8        | 36.0        | 18.0        |
| of which compensation of employees               | 21.7        | 21.6        | 21.0        | 21.0        | 21.7        | 11.3        |
| Income transfers                                 | 3.3         | 3.3         | 2.7         | 2.7         | 2.7         | 1.9         |
| of which social security benefits and allowances | 1.3         | 1.4         | 0.8         | 0.7         | 0.7         | 0.1         |
| subsidies and other transfers                    | 1.8         | 1.8         | 1.8         | 1.9         | 1.9         | 1.8         |
| interest expenses                                | 0.1         | 0.1         | 0.1         | 0.1         | 0.1         | 0.1         |
| Capital expenditure <sup>3</sup>                 | 4.6         | 4.6         | 4.7         | 5.1         | 5.2         | 4.4         |
| <b>Total expenditure</b>                         | <b>41.7</b> | <b>41.8</b> | <b>41.5</b> | <b>42.6</b> | <b>43.9</b> | <b>24.3</b> |
| <b>Net lending (+) / net borrowing (-)</b>       | <b>-1.4</b> | <b>-0.9</b> | <b>-0.2</b> | <b>-0.4</b> | <b>-1.0</b> | <b>-0.3</b> |
| Primary balance <sup>4</sup>                     | -1.5        | -1.1        | -0.4        | -0.6        | -1.1        | -0.5        |

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

The local government sector is understood in the national accounts to comprise the non-market operations of local and joint municipal authorities, which are primarily financed from tax revenues and mandatory charges. Public corporations that primarily finance their operations through sales revenue from other sectors, such as water, energy, waste and energy management, and port activities, are therefore classified in the national accounts in the corporations sector, outside the local government sector.

The concept of an investment expenditure differs in local government accounting and national accounts. Acquisitions and sales of shares and equities are recorded in the national accounts as financial transactions and not under local government

investment expenditure. Local government accounting, on the other hand, record share acquisitions as investments in fixed assets.

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

There are also differences in the timing of entries in local government accounting and in the national accounts. In local governments' accounts, tax revenue describes the amount of tax collected during the calendar year. In the national accounts, tax revenue for the year in question is based on the tax authorities' accounts of tax remittance from February through to the end of January the following year. This is intended to allow for the timing difference between advance tax payments and remittance to government. The size of the 2020 timing difference between accounting and national accounts is due to the reform of social services, health care and regional government. The tax revenues collected by municipalities in 2020 will be partly affected by the taxes paid at higher municipal tax rates in earlier tax years. This phenomenon will also be visible with respect to corporate income tax.

**Table 27. Financial position in local government accounting and local government net lending**

|   | 2016        | 2017        | 2018**      | 2019**      | 2020**      |
|---|-------------|-------------|-------------|-------------|-------------|
|   | EUR billion |             |             |             |             |
| <b>Cash flow from municipalities' and joint municipal authorities' operations and investments</b>         | -0.1        | 0.3         | 0.2         | -0.3        | 1.3         |
| Other than municipalities' and joint municipal authorities' net lending effect <sup>1</sup>               | -0.5        | -0.5        | -0.5        | -0.5        | -0.5        |
| Effect of municipalities' and joint municipal authorities' operations outside the local government sector | 0.0         | -0.1        | -0.1        | -0.1        | -0.1        |
| Acquisitions and sales of shares  | 0.1         | 0.1         | 0.1         | 0.1         | 0.1         |
| Differences in concepts of property expenditure and income  | -0.0        | -0.1        | -0.1        | -0.1        | -0.1        |
| Timing differences  | -0.3        | 0.1         | -0.0        | -0.0        | -1.1        |
| Other differences <sup>2</sup>  | -0.1        | -0.1        | -0.1        | -0.1        | -0.0        |
| <b>Local government net lending (+)/borrowing (-)</b>   | <b>-0.9</b> | <b>-0.2</b> | <b>-0.4</b> | <b>-1.0</b> | <b>-0.3</b> |

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

2) E.g. differences in capital transfers and investment grants



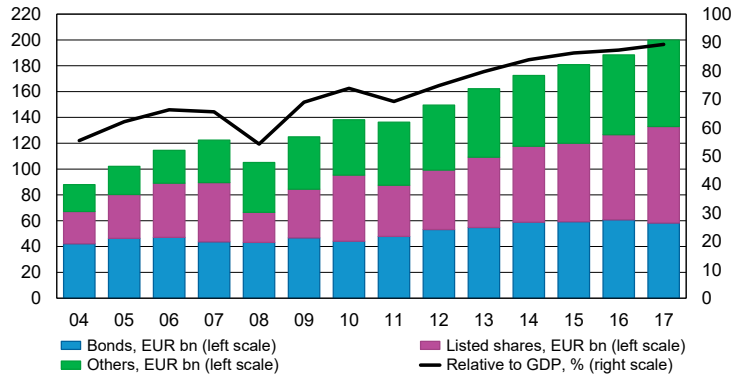
## 2.5 Social security funds

### 2.5.1 Earnings-related pension funds

The surplus of earnings-related pension funds fell to 0.9 per cent relative to GDP last year, compared to an average of just over three per cent in the first decade of the 2000s. In recent years, earnings-related pension expenditure has risen rapidly with the growing number of retirees and with the higher average level of pensions, as starting pensions are higher than those already in payment. High unemployment and slow rise in earnings have in turn dampened the growth of income from contributions, even though pension contribution rates have increased rapidly in recent years. Low interest rates have in turn reduced pension funds' property income. Rising asset prices – and stock prices in particular – have nevertheless already increased the total value of pension assets to some EUR 200 billion at year-end 2017.

The surplus of earnings-related pension funds is forecast to remain at approximately the same level as last year over the entire forecast horizon. The annual growth rate of earnings-related pension expenditure is expected to remain around four per cent. Even though growth in the number of retirees is gradually slowing, the rise in the average level of pensions and annual indexations of pensions will increase pension expenditures. On the other hand, faster growth in total wages and salaries is accelerating the rise of income from pension contributions. Moreover, pension funds' property income is expected to grow over the forecast horizon as interest rates rise. The private sector earnings-related pension contribution is expected to remain at its current level of 24.4 per cent over the forecast horizon, but the latest long-term projections by the Finnish Centre for Pensions indicate that there may be slight upward pressure on the contribution level thereafter.

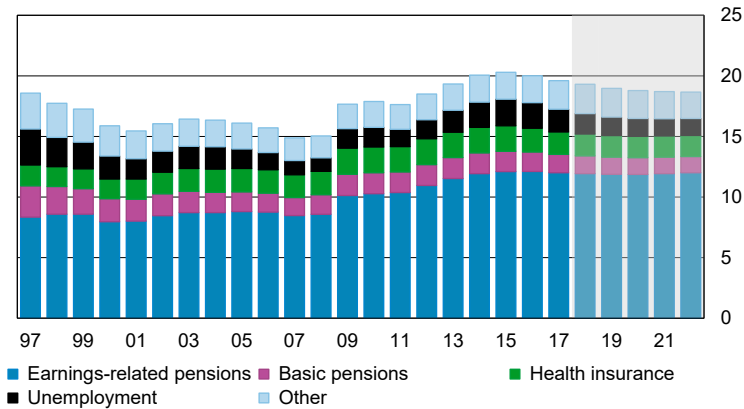
### Investment portfolio of pension funds all members



Sources: The Finnish Pension Alliance TELA, Statistics Finland, MoF

VM34098

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



**Table 28. Finances of social security funds<sup>1</sup>**

|  | 2015        | 2016        | 2017        | 2018**      | 2019**      | 2020**      |
|--|-------------|-------------|-------------|-------------|-------------|-------------|
|  | EUR billion |             |             |             |             |             |
| Investment income                          | 3.4         | 3.6         | 3.5         | 3.8         | 4.0         | 4.4         |
| Social security contributions              | 26.9        | 27.9        | 27.3        | 27.9        | 28.8        | 29.8        |
| of which contributions paid by employers   | 18.2        | 18.8        | 17.6        | 17.5        | 17.7        | 18.1        |
| contributions paid by insured              | 8.7         | 9.2         | 9.7         | 10.4        | 11.1        | 11.7        |
| Transfer from general government           | 14.3        | 14.6        | 15.8        | 15.9        | 15.7        | 15.5        |
| Other revenue                              | 0.5         | 0.5         | 0.4         | 0.5         | 0.5         | 0.5         |
| <b>Total revenue</b>                       | <b>45.2</b> | <b>46.5</b> | <b>47.1</b> | <b>48.0</b> | <b>49.0</b> | <b>50.2</b> |
| Consumption expenditure                    | 3.7         | 3.6         | 3.6         | 3.7         | 3.8         | 3.9         |
| Social security benefits and allowances    | 35.9        | 36.6        | 37.4        | 38.2        | 39.1        | 40.1        |
| Other outlays                              | 3.7         | 3.4         | 3.3         | 3.2         | 3.4         | 3.4         |
| <b>Total expenditure</b>                   | <b>43.3</b> | <b>43.6</b> | <b>44.3</b> | <b>45.1</b> | <b>46.3</b> | <b>47.5</b> |
| <b>Net lending (+) / net borrowing (-)</b> | <b>1.9</b>  | <b>2.9</b>  | <b>2.8</b>  | <b>2.9</b>  | <b>2.7</b>  | <b>2.7</b>  |
| Earnings-related pension schemes           | 2.7         | 2.4         | 2.1         | 2.4         | 2.2         | 2.1         |
| Other social security funds                | -0.8        | 0.5         | 0.7         | 0.6         | 0.4         | 0.6         |
| Primary balance <sup>2</sup>               | 0.5         | 1.6         | 1.7         | 1.7         | 1.4         | 1.2         |

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

2) E.g. differences in capital transfers and investment grants

## 2.5.2 Other social security funds

Other social security funds mainly comprise 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 rose to 0.3 per cent of GDP in 2017. A one-percentage point increase in the unemployment insurance contribution at the beginning of 2016 and a clear reduction in unemployment expenditures due to the improved employment situation contributed to this surplus.

Other social security funds are forecast to remain in slight surplus over the forecast horizon. Improved employment situation is reducing unemployment expenditures. Cost-cutting measures adopted by the Government also curb expenditure growth at the beginning of the forecast horizon. For example, benefits linked to the national pension index, with the exception of basic social assistance, will not be increa-

sed in 2018-2019. The accelerating growth of total wages and salaries will increase income from social security contributions while the fall in unemployment insurance and sickness insurance contributions at the beginning of 2018 will lower revenues. 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 2020. Accordingly, it has been assumed that the unemployment insurance contribution would be reduced by a further 0.3 percentage points as of 2020. 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 the year 2022, even if the reduction was implemented from 2019 onwards and the reduction in unemployment expenditures was more moderate than anticipated.

**Table 29. 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   | 0.75   | 1.32   |
| Unemployment insurance                            | 2.33  | 2.85  | 2.41  | 1.91   | 1.91   | 1.76   |
| 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  | 19.35  |
| <b>Employees</b>                                  |       |       |       |        |        |        |
| Sickness insurance                                | 2.10  | 2.12  | 1.58  | 1.53   | 1.50   | 1.64   |
| Unemployment insurance                            | 0.65  | 1.15  | 1.60  | 1.90   | 1.90   | 1.75   |
| 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   | 1.59   | 1.46   |
| <b>Pension indices</b>                            |       |       |       |        |        |        |
| Earnings-related index (over 65)                  | 2519  | 2519  | 2534  | 2548   | 2584   | 2624   |
| <b>National pension index</b>                     | 1637  | 1631  | 1617  | 1617   | 1617   | 1638   |

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, the change in population age structure in a permanently unfavourable direction will create pressure on the sustainability of general government finances in the longer term. This change is increasing pension expenditures as well as health and long-term care costs to a degree that can no longer be sustained under the current tax rate, while also depleting the working age population whose taxes finance welfare services and benefits. Population ageing is manifesting earlier in Finland than in many other EU countries.

The sustainability gap in public finances means that general government revenue will not suffice to cover expenditure in the long term. A permanent imbalance between revenue and expenditure creates the danger of public debt spiralling out of control. Technically, the sustainability gap may be expressed as the difference between the structural deficit in public finances in the base year (which is currently 2022) and the level of surplus required for sustainable public finances (see diagram). The surplus required for sustainable public finances means that general government structural surplus in relation to GDP should be approximately two and a half per cent at the beginning of the next decade for general government finances to manage the expenditure pressures arising from an ageing population in future decades without additional measures. Instead of a two and a half per cent surplus, it is expected that general government finances will be roughly balanced in structural terms in 2022.

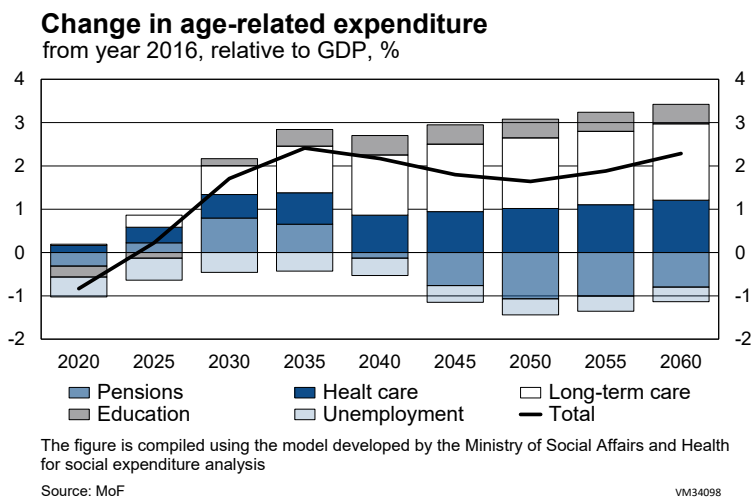
The Ministry of Finance assessment of the long-term sustainability of general government finances is based on EU harmonised methods and calculation rules. The sustainability calculation is effectively a pressure projection in which developments under current legislation and practices are extrapolated into the future using the population projection, spending breakdowns by age groups, and assessments of long-term economic development. More detailed computing procedures are set out in the methodology description of the Ministry's sustainability gap calculations.<sup>1</sup>

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

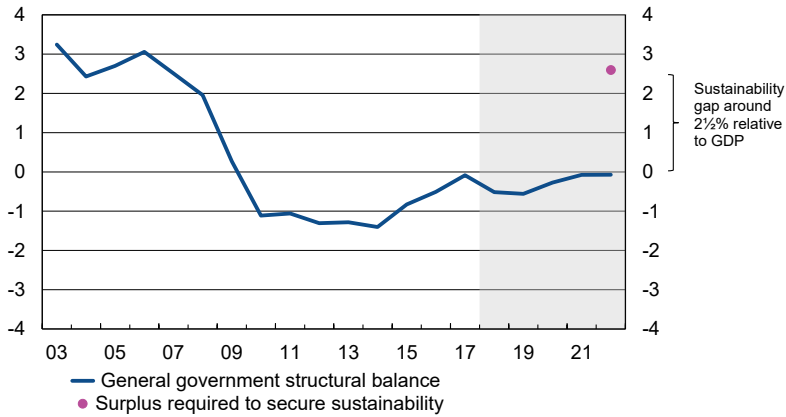
The Ministry estimates the sustainability gap at about two and a half per cent of GDP, which is about one half percentage point smaller than last autumn. There are two opposing factors behind this. In the first place, an improved estimate of the condition of general government finances in the medium term has reduced the sustainability gap estimate by about one percentage point. On the other hand, the estimated sustainability gap has increased by about half a percentage point, as the calculation now applies new, more cautious assumptions of long-term economic development published in November 2017 by the EU Working Group on Ageing Populations and Sustainability.<sup>2</sup> The sustainability gap calculation does not yet take into account the long-term measures outlined in the government programme for strengthening general government finances, such as the reform of health and social services.

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



2 European Commission (2017), The 2018 Ageing Report – Underlying Assumptions & Projection Methodologies, European Economy – Institutional paper 065 / November 2017. [https://ec.europa.eu/info/sites/info/files/economy-finance/ip065\\_en.pdf](https://ec.europa.eu/info/sites/info/files/economy-finance/ip065_en.pdf)

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



Sources: Statistics Finland, MoF

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**Table 30. General government finances, % of GDP**

|   | 2017        | 2022**      | 2030**      | 2040**      | 2050**      | 2060**      | 2060/2017** |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|   | % of GDP    |             |             |             |             |             | change, %   |
| <b>Total expenditure</b>                          | <b>53.7</b> | <b>51.2</b> | <b>55.2</b> | <b>56.8</b> | <b>57.7</b> | <b>60.4</b> | <b>6.7</b>  |
| of which age-related and unemployment expenditure | 29.7        | 29.4        | 31.7        | 32.2        | 31.7        | 32.3        | 2.6         |
| Pensions  | 13.5        | 13.5        | 14.5        | 13.6        | 12.7        | 12.9        | -0.6        |
| Old-age pensions                                  | 12.4        | 12.5        | 13.5        | 12.6        | 11.7        | 11.9        | -0.5        |
| Other pensions                                    | 1.1         | 1.0         | 1.0         | 1.0         | 1.0         | 1.0         | -0.1        |
| Health care                                       | 6.0         | 6.2         | 6.5         | 6.8         | 7.0         | 7.2         | 1.2         |
| Long-term care                                    | 2.2         | 2.4         | 2.9         | 3.6         | 3.9         | 4.0         | 1.8         |
| Education   | 5.6         | 5.4         | 5.8         | 6.1         | 6.1         | 6.1         | 0.5         |
| Unemployment                                      | 2.3         | 1.9         | 1.9         | 2.0         | 2.0         | 2.1         | -0.3        |
| Interest expenditure                              | 1.0         | 0.9         | 2.5         | 3.7         | 5.2         | 7.2         | 6.2         |
| Total revenue                                     | 53.2        | 51.5        | 53.1        | 52.7        | 52.2        | 51.9        | -1.3        |
| of which: property income                         | 2.8         | 3.1         | 4.6         | 4.3         | 3.7         | 3.5         | 0.7         |
| <b>Net lending<sup>1</sup></b>                    | <b>-0.6</b> | <b>0.3</b>  | <b>-2.1</b> | <b>-4.1</b> | <b>-5.6</b> | <b>-8.5</b> | <b>-7.9</b> |
| of which: transfer to pension funds               | 0.9         | 0.8         | 0.5         | 0.9         | 1.5         | 1.2         | 0.3         |
| General government debt                           | 61.4        | 56.0        | 58.7        | 77.1        | 107.1       | 148.7       | 87.3        |
| General government assets, consolidated           | 132.5       | 125.2       | 114.3       | 97.6        | 89.5        | 85.1        | -47.4       |
| Pension funds' financial assets, consolidated     | 91.4        | 84.1        | 76.5        | 64.8        | 61.5        | 60.6        | -30.8       |

1) Cyclically-adjusted net lending as of 2030

**Table 31. Underlying assumptions**

|                                       | Assumptions, % |        |        |        |        |
|---------------------------------------|----------------|--------|--------|--------|--------|
|                                       | 2022**         | 2030** | 2040** | 2050** | 2060** |
| Labour productivity growth            | 1.0            | 1.0    | 1.4    | 1.5    | 1.5    |
| Real GDP growth                       | 1.1            | 0.7    | 1.6    | 1.6    | 1.6    |
| Participation rate                    |                |        |        |        |        |
| males (15-64)                         | 80.1           | 78.3   | 77.8   | 78.4   | 79.1   |
| females (15-64)                       | 77.1           | 75.5   | 75.4   | 76.1   | 76.7   |
| total (15-64)                         | 78.5           | 76.9   | 76.6   | 77.3   | 77.9   |
| Unemployment rate                     | 6.9            | 7.3    | 7.5    | 7.8    | 8.0    |
| Old-age dependency ratio <sup>1</sup> | 37.7           | 43.4   | 44.6   | 46.9   | 50.7   |
| Inflation                             | 2.0            | 2.0    | 2.0    | 2.0    | 2.0    |
| Real interest rate                    | 0.4            | 2.4    | 3.0    | 3.0    | 3.0    |
| Real return of asset                  | 1.2            | 3.0    | 3.5    | 3.5    | 3.5    |

1) The ratio of people aged over 64 to those aged 15–64

**Table 32. Impact of various factors on the sustainability gap**

|  | Baseline scenario<br>(spring 2018) | Change, pp. | Impact on sustainability<br>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<br>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             | +0.8%                              | +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%<br>and 3.0%  | -1.0        | +0.7   |

1) The calculations are based on spring 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, average change, %**
3. **National balance of supply and demand**
4. **Financial balance of the Finnish economy**

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

|  | 2017 |      |      |      | 2018** |      |      |      | 2019** |      |      |      | 2020** |
|--|------|------|------|------|--------|------|------|------|--------|------|------|------|--------|
|  | es2  | es3  | es4  | es1  | es2    | es3  | es4  | es1  | es2    | es3  | es4  | es1  | es1    |
| GDP at market prices, change in volume, %          | 2.4  | 2.9  | 3.1  | 2.6  | 1.6    | 2.1  | 2.4  | 2.6  | 1.5    | 1.8  | 1.9  | 2.2  | 1.8    |
| Consumption, change in volume, %                   | 1.4  | 1.6  | 1.3  | 1.5  | 0.8    | 1.2  | 1.3  | 1.4  | 0.7    | 1.0  | 0.9  | 1.2  | 1.3    |
| Exports, change in volume, %                       | 4.7  | 4.7  | 6.8  | 7.8  | 3.7    | 3.7  | 4.5  | 6.1  | 3.9    | 4.1  | 4.5  | 4.8  | 3.5    |
| Unemployment rate, %                               | 8.5  | 8.6  | 8.6  | 8.6  | 8.1    | 8.1  | 8.1  | 8.1  | 7.8    | 7.8  | 7.7  | 7.5  | 7.0    |
| Consumer price index, change, %                    | 1.0  | 0.9  | 0.8  | 0.7  | 1.3    | 1.5  | 1.4  | 1.2  | 1.4    | 1.5  | 1.5  | 1.4  | 1.7    |
| Central government net lending, relative to GDP, % | -2.5 | -2.3 | -2.3 | -1.7 | -2.0   | -2.0 | -2.1 | -1.6 | -1.7   | -1.4 | -1.4 | -0.9 | -0.4   |
| General government net lending, relative to GDP, % | -1.8 | -1.2 | -1.2 | -0.6 | -1.7   | -1.4 | -1.3 | -0.6 | -1.4   | -1.0 | -0.8 | -0.2 | 0.1    |
| Central government debt, relative to GDP, %        | 48.5 | 47.7 | 47.1 | 47.3 | 48.6   | 47.5 | 46.7 | 46.9 | 48.6   | 46.9 | 46.0 | 45.6 | 44.4   |

<sup>1</sup> Economic Survey / release date: 21.6.2017 (es2), 19.9.2017 (es3), 19.12.2017 (es4) and 13.4.2018 (es1)

Sources: Statistics Finland, MoF

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

|  | Years 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                      | 0.6                     | 0.6  | 1.5  |
| GDP (value)                              | 3.0                      | 2.1                     | 0.8  | 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                      | 1.2                     | 0.7  | 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                     | -2.1                    | 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.

<sup>1</sup> Over- or underestimation is indicated by average forecast error.

<sup>2</sup> 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                                     | 215 773        | 223 522        | 232 868        | 242 829        | 251 720        |
| Imports of goods and services | 77 482                                      | 79 350         | 85 226         | 90 776         | 96 578         | 101 552        |
| <b>Total supply</b>           | <b>287 086</b>                              | <b>295 123</b> | <b>308 748</b> | <b>323 643</b> | <b>339 407</b> | <b>353 273</b> |
| Exports of goods and services | 76 493                                      | 77 749         | 86 252         | 93 116         | 99 448         | 104 429        |
| Consumption                   | 167 057                                     | 170 772        | 173 539        | 178 314        | 184 022        | 189 427        |
| private                       | 115 916                                     | 119 067        | 122 017        | 125 807        | 129 602        | 133 772        |
| public                        | 51 141                                      | 51 705         | 51 522         | 52 507         | 54 420         | 55 655         |
| Investment                    | 42 713                                      | 46 549         | 50 503         | 53 462         | 56 728         | 59 677         |
| private                       | 34 562                                      | 37 828         | 41 833         | 44 343         | 47 125         | 49 917         |
| public                        | 8 151                                       | 8 721          | 8 670          | 9 119          | 9 603          | 9 761          |
| <b>Total demand</b>           | <b>287 403</b>                              | <b>295 770</b> | <b>310 765</b> | <b>325 660</b> | <b>341 424</b> | <b>355 290</b> |
|                               |   |                |                |                |                |                |
|                               | At reference year 2010 prices; not additive |                |                |                |                |                |
|                               | 2015  | 2016           | 2017           | 2018**         | 2019**         | 2020**         |
| GDP at market prices          | 186 804                                     | 190 793        | 195 819        | 200 985        | 205 466        | 209 261        |
| Imports of goods and services | 77 212                                      | 81 650         | 84 525         | 88 132         | 91 541         | 94 288         |
| <b>Total supply</b>           | <b>264 016</b>                              | <b>272 443</b> | <b>280 344</b> | <b>289 117</b> | <b>297 008</b> | <b>303 549</b> |
| Exports of goods and services | 74 178                                      | 76 791         | 82 799         | 87 838         | 92 092         | 95 285         |
| Consumption                   | 150 137                                     | 152 809        | 155 114        | 157 308        | 159 212        | 161 215        |
| private                       | 104 910                                     | 106 789        | 108 507        | 110 458        | 112 117        | 113 681        |
| public                        | 45 232                                      | 46 027         | 46 614         | 46 850         | 47 090         | 47 529         |
| Investment                    | 38 966                                      | 41 867         | 44 513         | 46 124         | 47 879         | 49 244         |
| private                       | 31 565                                      | 34 038         | 36 909         | 38 276         | 39 788         | 41 210         |
| public                        | 7 398                                       | 7 827          | 7 603          | 7 848          | 8 091          | 8 034          |
| <b>Total demand</b>           | <b>264 382</b>                              | <b>272 136</b> | <b>281 903</b> | <b>291 247</b> | <b>299 717</b> | <b>306 871</b> |

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

|   | 2013               | 2014 | 2015 | 2016 | 2017 |
|---|--------------------|------|------|------|------|
|   | relative to GDP, % |      |      |      |      |
| <b>Gross investment</b>   | 21.2               | 20.6 | 20.4 | 21.6 | 22.6 |
| households and non-profit institutions                              | 6.2                | 5.9  | 5.7  | 6.3  | 6.6  |
| non-financial corporations and financial and insurance corporations | 10.8               | 10.5 | 10.8 | 11.2 | 12.1 |
| general government  | 4.2                | 4.2  | 3.9  | 4.0  | 3.9  |
| <b>Gross saving<sup>1</sup></b>                                     | 19.7               | 19.7 | 20.0 | 20.5 | 22.7 |
| households and non-profit institutions                              | 5.0                | 4.2  | 3.9  | 3.5  | 3.1  |
| non-financial corporations and financial and insurance corporations | 13.2               | 14.5 | 15.1 | 15.0 | 16.4 |
| general government  | 1.5                | 1.0  | 1.1  | 2.1  | 3.2  |
| <b>Financial surplus</b>  | -1.8               | -1.2 | -0.7 | -1.1 | 0.8  |
| 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  | 3.6  | 4.2  |

general government  
Statistical discrepancy