BANK OF FINLAND BULLETIN

BANK OF FINLAND ARTICLES ON THE ECONOMY

Bank of Finland Bulletin 5 • 2019

Publication dates 17 December and 17 January 2020
(Finnish version has been published on 17 December 2019)
Vol. 93
The Bank of Finland Bulletin is published five times a year.

Subscriptions of the newsletter
www.bofbulletin.fi

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ISSN 1456-5870 (online)

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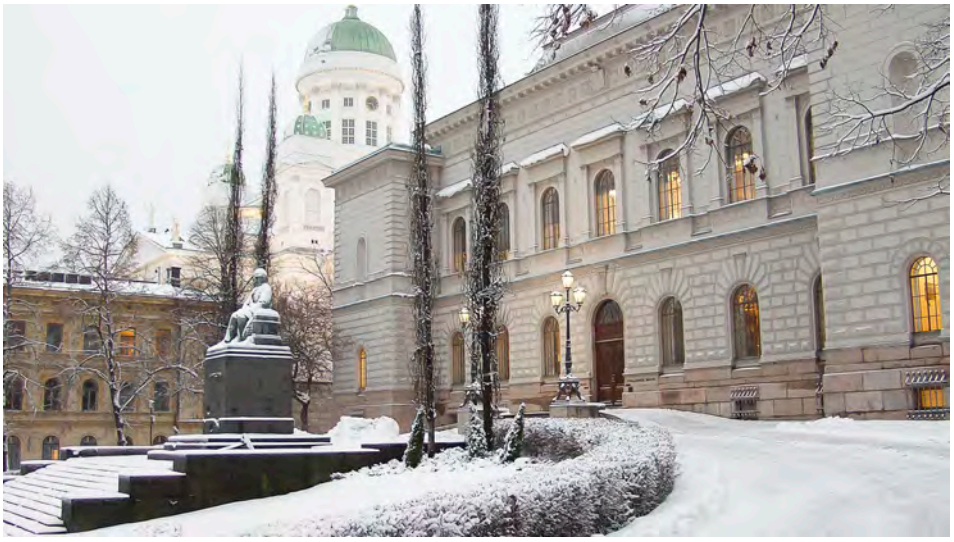
EDITORIAL

Finland's economic transition still incomplete

17 DEC 2019 10:00 AM • BANK OF FINLAND BULLETIN 5/2019 • EDITORIAL

The Finnish economy is still going through a period of transition in which it has to adjust to two large structural realignments. One of these concerns the ageing population. The other comprises the shocks to the economy suffered since 2007, from which we have not yet fully recovered.



Governments and social partners have in recent years agreed several important solutions to address the problems – such as the competitiveness of Finnish work and output – created by the above-mentioned major changes. However, there still remains a need for further significant adjustments. There is a substantial gap in the long-term sustainability of the public finances, which remain in deficit. The unemployment rate has declined significantly, but remains higher than in most other EU Member States. Moreover, labour productivity developments have been lacklustre.

The ageing population deepens the sustainability gap

One factor currently weighing on the long-term outlook for the public finances is the fact that the baby-boom generation has reached retirement age. This has increased public pension expenditure, and over the next few years it will also lead to a more rapid increase in expenditure on health care and long-term care of the elderly. In the coming decades, the ratio of working-age population to total population will also decrease on account of

lengthening life expectancies and a declining birth rate.

The Bank of Finland has revised its estimate of the long-term fiscal sustainability gap relative to the previous estimate, published in December 2018. The new estimate paints a gloomier picture than its predecessor, with the sustainability gap now estimated at 4.7% of GDP.

The estimate has been revised partly because the general government deficit forecast for the immediate years ahead has grown. This, in turn, is due both to decisions that weaken the general government balance and to a general weakening of the economic outlook.

The gloomier estimate of the sustainability gap is also partly due to the extension of the review period to 2070, the same time-frame employed by the Ministry of Finance. Towards the end of this period, the public finances will come under pressure from the effects of the recent drop in the birth rate, as the number of people of working age will decline further relative to the retired population.

Aim for employment to achieve a good Nordic level

The long-term outlook for the public finances would be eased if a higher proportion than now of the working-age population were in work. The aim of raising the employment rate to 75% over the next few years is well-justified. Beyond this, it would make sense to aim even higher, to reach a good Nordic level. For example, Sweden's employment rate currently stands at around 78%.

The prerequisites for higher employment should be improved by a variety of measures all pulling in the same direction. There is an important role for structural reforms to increase the supply of labour. These would enable a sustained increase in employment.

At the same time, it is important to seek to reduce mismatch problems on the labour market. Important factors here are the education system, housing policy and services for the unemployed.

A third key factor underlying the prerequisites for employment is labour demand. This can be sustainably supported by balanced development of labour costs and successful cyclical policy in both low and high phases of the economic cycle.

When selecting measures to improve the prerequisites for employment, it is important to draw on the knowledge provided by both research and international experience. With regard to measures to boost labour supply, these would suggest that employment can be improved by e.g. raising the lower threshold age for additional days of earnings-related unemployment benefit, and in general increasing the incentives within the unemployment benefits system. One approach could be a gradation of the level of earnings-related unemployment benefit based on the duration of unemployment. Employment could also be boosted by reforms to the system of family leave and making it easier for targeted immigration for the purpose of employment. Processing of employment-related residence permits could be accelerated and the residence permits of foreign students who have studied in Finland extended.

When the aim is a significant rise in the employment rate, no stone should be left unturned. It is justified to seek benefits from measures for which there are as yet no clear research results. There are undoubtedly many such measures. It is also important to utilise those measures whose outcomes are better known, like those mentioned above.

There are several ways to strengthen the long-term outlook for the public finances. In addition to raising the employment rate and a critical review of public expenditure and taxation, it is also important to improve productivity in publicly funded services. This will enable the provision to the ageing population of the services they need without crippling the carrying capacity of the public finances. When planning such reforms, the perspective of general government sustainability should always be included in the analysis.

General government outlook weakened – buffers are required

The near-term outlook for the public finances has deteriorated. The general government situation is better than five years ago, but in recent years the public finances have nevertheless remained in deficit despite the favourable cyclical juncture. In 2018, the general government deficit relative to GDP deepened, and a similar outcome is forecast for 2019 and 2020.

The deepening of the deficit is due in part to fiscal policy, which has been eased and is forecast to be eased further in 2020. Automatic stabilisers should be allowed to take full effect, but there is also a strong case for deliberate policy measures to strengthen the public finances. This is justified above all by the long-term sustainability gap, but also because notwithstanding the slower pace of growth, the near-term forecast does not foresee a recession.

Despite the recent headwinds in the global economy, the cyclical situation in Finland has so far remained fairly robust, and the approximately 1% economic growth forecast for Finland in 2020 is only slightly below estimated average longer-term growth.

One central trend in the Finnish economy since 2007, and to an extent in recent years too, has been the sluggishness of labour productivity growth and business investment. From the perspective of economic wellbeing and dynamism, it is also particularly important to improve the prerequisites for productivity growth.

Developments in labour productivity are affected by a large range of different factors, including many aspects of economic policy. When seeking to improve the prospects for productivity growth, key factors are innovation policy and the broader corporate operating environment from the perspective of the prospects for development and growth.

The education system is also relevant to facilitating labour productivity growth, particularly in the longer term. Various features of the education system have an influence in this area. One important feature is the general level of education.

In Finland, the general educational level of the population was on the rise for several

decades, but this trend has been reversed during the past 10–15 years. Among young adult cohorts the level of educational attainment has turned downwards, which is exceptional in international comparison and concerning from a Finnish perspective. This trend can scarcely be considered positive, particularly when research data does not suggest any weakening in the returns to education.

Cost-competitiveness of Finnish output still requires further improvement

Raising the employment rate to 75% has been made feasible due to the increased employment of recent years. One contributing factor has been the improvement in cost-competitiveness.

When, in the next few months, negotiations are conducted over the coming round of collective agreements, it will be important to take into account the effects of cost developments on the prospects for production and employment growth in Finland. From that perspective it would be wise to facilitate a further slight improvement in cost-competitiveness. The possibility of a sustainable rise in costs and prices in Finland is limited by the fact that euro area developments in this area are still sluggish compared with previous decades and the objectives of the central bank.

Pay agreements supportive of employment are part of the series of adjustments that also include other measures to support employment and strengthen the foundations of productivity growth and the strengthening of general government finances. Taken together, these will make it possible to cope with continued demographic ageing, even in the difficult environment in which Finland now finds itself after a full 10 years of mainly sluggish economic developments.

In addition to the ageing population and the economic shocks of recent years, the economic transition and need for adjustment also relate to an even longer-term trend, climate change. National and international efforts to slow this process have also been underway for a while already, but there remains much to do before we are on safe ground.

Helsinki, 16 December 2019

Olli Rehn
Governor of the Bank of Finland

Tags

cost-competitiveness, employment rate, fiscal policy, public finances, general government sustainability

BANK OF FINLAND FORECAST

Finland's economic boom over

TODAY 3:00 PM • BANK OF FINLAND BULLETIN 5/2019 • ECONOMIC OUTLOOK

The peak of the cycle in the Finnish economy is now over and economic growth is temporarily losing momentum. Although growth for the current year is still good, there are clear signs of a slowdown. Growth has already slowed in Finland's important trading partners, and in the domestic economy both business and household confidence has been declining for some time. The continued sluggishness of global and euro area growth is reflected in Finland's growth figures, which will dip below 1% annual growth in 2020. However, both the euro area and the global economy will gradually recover and exert a pull on the Finnish economy, too. GDP growth will pick up slightly in 2021–2022, to 1.1% and 1.3%, respectively.

The continued uncertainty in the international economy and globally weak investment will depress the exports and investments of Finnish companies. In 2020, export growth will be sluggish and there will be little in the way of investment. Investments will also be restrained by the turn that has already occurred in housing construction, as a result of which housing investment will decline in the immediate years ahead. In the years covered by the forecast, Finland's export demand will begin to strengthen, but actual exports from Finland, which are strongly weighted towards capital goods and intermediate goods, will join in the positive developments only towards the end of the forecast period.

In 2019, household consumption will grow only moderately relative to the increase in purchasing power. There has been a considerable decline in consumer confidence. The slower growth in consumption is a consequence of an increased awareness of the

prevailing risks coupled with precautionary savings. With the recovery in Finland's external (operating) environment, households will once again have the confidence to consume more, and growth in private consumption will catch up with the pace of growth in purchasing power towards the end of the forecast period. The savings rate will remain higher than in recent years throughout the forecast period.

The labour market will cool as economic growth slows and growth in labour demand weakens. The downward trend in the unemployment rate will come to a halt temporarily, and employment will barely grow at all in 2020. Unemployment will, however, remain lower than in recent years. Labour market capacity restraints will ease somewhat as the market cycle abates. However, in many sectors and geographical areas there will still be problems of mismatch between vacant jobs and the available unemployed job-seekers.

Monetary policy has been moved in an increasingly accommodative direction, while fiscal policy will also be expansionary in the immediate years ahead. The low level of interest rates will bolster consumption and investment. Public finance indicators will weaken substantially, both on account of the weaker macroeconomic situation and due to the expansionary fiscal policy. The general government deficit relative to GDP will deepen to 1.5% in 2020 and thereafter remain at that level. Public debt relative to GDP will, for its part, begin to grow again in 2020 after contracting for the previous 4 years.

Wages are forecast to rise more-or-less in line with the aggregate of productivity growth and inflation. The forecast is based on the technical assumption that real wages follow developments in productivity. The annual increase in average earnings will average just under 2.5% in the forecast years. Earnings growth will also gradually push up services prices. Inflation will gather pace towards the end of the forecast period as the cyclical position improves, but will still be rather sluggish.

Table 1.

Key forecast

Percentage change on the previous year (june 2019 forecast)

	2019[f]	2020[f]	2021[f]	2022[f]
GDP	1.3 (1.6)	0.9 (1.5)	1.1 (1.3)	1.3
Private consumption	0.7	1.3	1.2	1.2
Public consumption	1.6	1.3	0.5	0.8
Fixed investment	1.1	0.7	0.6	2.0
Private fixed investment	1.1	–0.3	0.8	2.1
Public fixed investment	1.5	5.1	–0.2	1.9
Exports	4.0	0.9	2.2	2.6
Imports	0.7	1.3	1.8	2.5
Effect of demand components on growth				
Domestic demand	1.0	1.1	0.9	1.3
Net exports	1.3	–0.2	0.2	0.0
Changes in inventories and statistical error	–1.0	0.0	0.0	0.0
Savings rate, households, %	0.3	0.9	0.7	0.6
Current account, % in proportion to GDP	–1.3	–1.3	–1.1	–0.9

	2019[f]	2020[f]	2021[f]	2022[f]
Labour market				

Key forecast				
Number of hours worked	0.8	–0.2	0.3	0.4
Number of employed	1.0	0.0	0.3	0.4
Unemployment rate, %	6.7	6.7	6.6	6.4
Unit labour costs	1.4	1.5	1.4	1.5
Labour compensation per employee	1.8	2.5	2.2	2.4
Productivity	0.3	1.0	0.8	0.9
GDP, price index	1.9	1.9	1.6	1.9
Private consumption, price index	1.2	1.2	1.3	1.6
Harmonised index of consumer prices	1.2 (1.3)	1.2 (1.4)	1.4 (1.6)	1.6
Excl. energy	1.0	1.3	1.4	1.6
Energy	2.9	0.2	0.8	1.0
f = forecast				
Source: Bank of Finland				

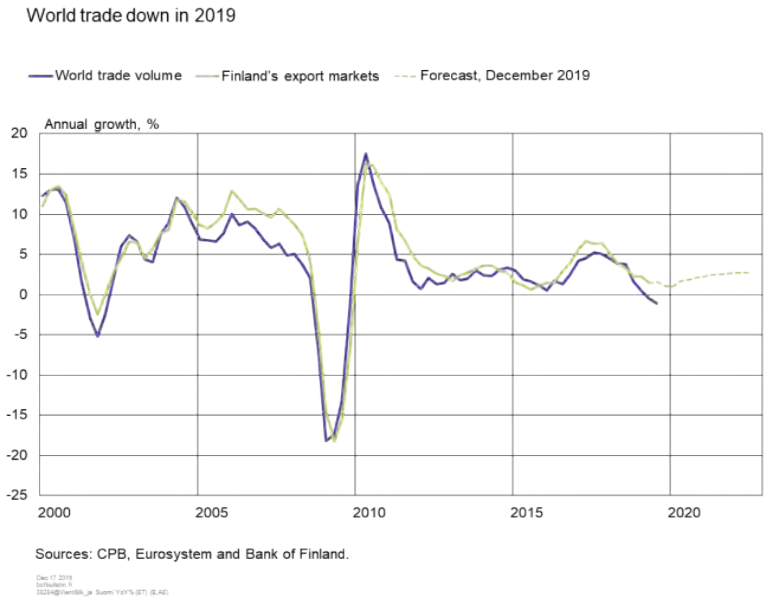
Forecast assumptions regarding the external environment

Global and euro area growth will continue to be slow, but the pace will gradually start to pick up towards the end of the forecast period. 2019 and 2020 will prove to be the bottom of the global business cycle. Thus, global economic developments will start to help the Finnish economy to grow towards the end of the forecast period. On the other hand, there is still a great deal of uncertainty as regards the global economic outlook, and this overshadows the outlook for both exports and investment. The financial markets expect the very accommodative monetary policy in the euro area to continue throughout the forecast period. Favourable funding costs will support domestic investment and consumption. The forecast is based on the data available on 26 November 2019.

Global economic developments will remain subdued

Global economic growth began to slow in 2018, and the subdued developments continued through 2019. In particular, the global economy has borne the effects of the uncertainty surrounding the protracted trade disputes, and the volume of global trade has contracted in 2019 (Chart 1). Both the slower growth in China and other emerging economies and the uncertainties surrounding Brexit serve to weaken the outlook for Finnish exports.

Chart 1.



There are no signs of a rapid amelioration of the global uncertainty. However, the assumed gradual easing of the trade disputes and a moderate cyclical upturn will lead to a gradual recovery in global trade from the beginning of next year. This will support growth in Finland's export markets, particularly towards the end of the forecast period (Chart 1). The rise in the export prices of Finland's competitors has slowed significantly in 2019 as global demand has waned. This has weakened the price-competitiveness of Finnish exports. From 2020 onwards, however, Finland's competitors' export prices will grow at a steady rate of slightly above 2% (Table 2).

A marginal improvement in the global economy will also support euro area growth in the forecast period. Industry in the euro area, particularly in Germany, has suffered from the problems in global trade. By contrast, service sectors have still fared fairly well. Domestic demand has de facto maintained euro area growth in 2019. The moderate growth in private consumption and investment in the euro area will continue throughout the forecast period, due to the gradual recovery and continued accommodative monetary policy. This will support Finnish export demand, of which one third stems from the euro area.

Exchange rate developments will also contribute somewhat to growth in Finnish exports. In 2019, both the exchange rate for the euro against the dollar and the Finnish nominal effective exchange rate have weakened, which supports the price competitiveness of

Finnish exports. The effective exchange rate is derived by summing developments in the exchange rates of Finland's main trading partners relative to the euro weighted by bilateral trade weights. The effective exchange rate will remain stable throughout the forecast period (Table 2).

Euro area inflation has remained sluggish. In 2019, the subdued price developments were due particularly to a decrease in energy prices. A continued moderate fall in the oil price is expected in the forecast period, to a level of USD 60 a barrel at the end of the period (Table 2). By contrast, the prices of other industrial raw materials are expected to rise slightly in the forecast period.

The employment situation in the euro area is forecast to remain good during the forecast period. Rising labour costs and strengthening demand in line with the cyclical recovery will be reflected in prices and hence in a moderate acceleration of euro area inflation, particularly towards the end of the forecast period.

Monetary policy will remain accommodative

According to the forward guidance of the European Central Bank (ECB), interest rates will remain at their present or lower levels until the inflation outlook is robustly converging to a level sufficiently close to, but below, 2% and until this development is also consistently reflected in underlying inflation dynamics. The level of interest rates is still low. The interest rate on the main refinancing operations is 0.00%, on the marginal lending facility, 0.25%, and on the deposit facility, –0.50%. During autumn 2019, the accommodative nature of other aspects of monetary policy was also deepened further. At its September meeting, the Governing Council decided to restart net purchases of securities in the expanded asset purchase programme. In addition, the Governing Council also decided on other additional measures to support bank lending. Thus, overall, monetary policy will remain highly accommodative for longer than was expected in June.

Low funding costs will support growth

On the financial markets, a rise in interest rates is expected no earlier than 2022 (Table 2). Thus, funding costs for both private and public sectors are expected to remain low for the time being. This will support investments and consumption, strengthening the economic outlook.

On average, households' interest rates on housing loans are lower in Finland than elsewhere in the euro area (Chart 2). The average interest rate on new housing loans has continued its slight downward trajectory, but at a much slower pace than the euro area average. Narrower interest rate margins have also reduced the overall costs of housing loans, although the decrease has halted in recent months. Annual percentage rates on new consumer credit have decreased slightly since the summer, but they are still higher than at the beginning of the year.

Corporate funding costs on new loans are, in turn, slightly higher than elsewhere in the euro area, albeit still moderate (Chart 3). According to the business outlook indicator calculated by the Confederation of Finnish Industries, the financial conditions of Finnish

companies are still favourable in general terms and production is not restricted by access to funding.

Chart 2.

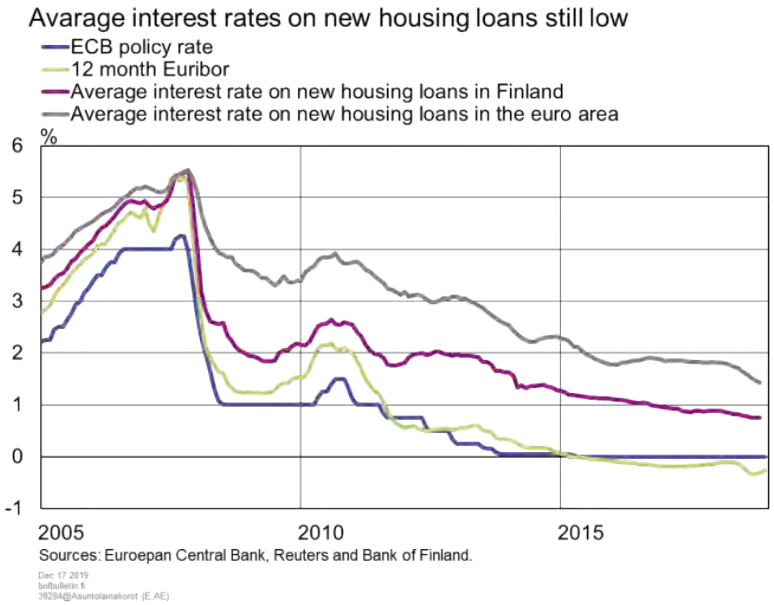


Chart 3.

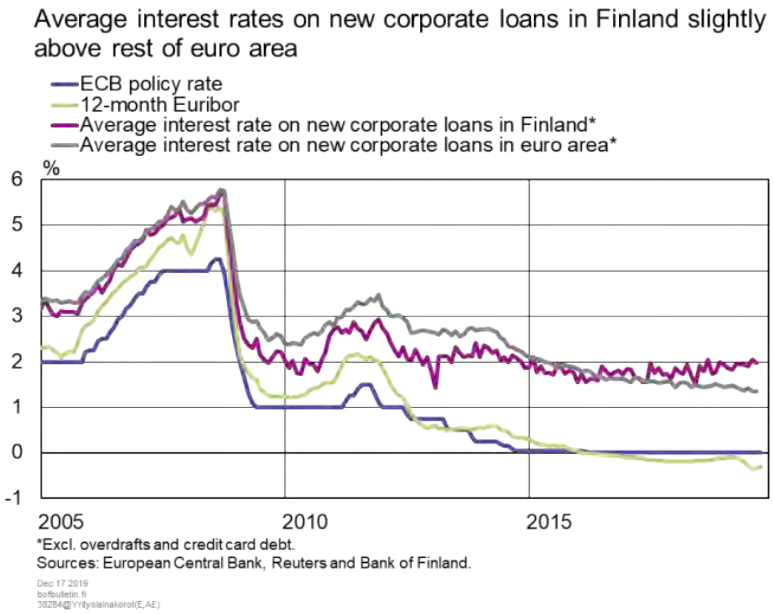


Table 2.

Key forecast assumptions

	2018	2019[f]	2020[f]	2021[f]	2022[f]
Finland's export markets[1], annual growth (%)	3.6	1.6	1.7	2.5	2.7
Oil price, USD/barrel	71.1	63.8	59.6	57.4	56.8
Export prices of Finland's competitors, in euro, annual growth (%)	1.4	2.2	2.2	2.2	2.2
3-month Euribor, %	–0.3	–0.4	–0.4	–0.4	–0.3
Finland's 10-year government bond yield, %	0.7	0.1	0.0	0.1	0.3
Finland's nominal competitiveness indicator[2]	106.8	106.3	105.9	105.9	105.9
US dollar value of one euro	1.18	1.12	1.10	1.10	1.10

[1] The growth in Finland's export markets is the import growth in the countries Finland exports to, weighted by their average share of Finland's exports.

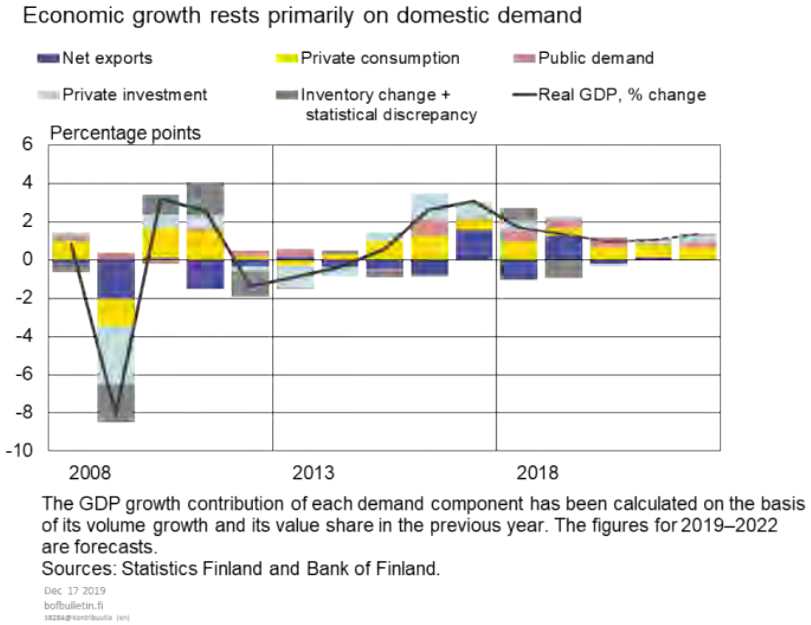
[2] Broad nominal effective exchange rate.

Sources: Eurosystem and Bank of Finland.

Demand

The global economy will continue to grow slowly in the forecast years, thus dampening Finland's outlook for exports and investment. Growth in private investment and exports will therefore slow significantly in the forecast period. Finland's economic growth during this period will rest on private consumption and public demand (Chart 4). Household purchasing power will continue to grow, but the protracted weakening of household confidence will overshadow the outlook for growth in consumption. On the other hand, low financing costs and the moderate growth in purchasing power will continue to support household consumption. Government decisions will increase public demand, especially at the beginning of the forecast period.

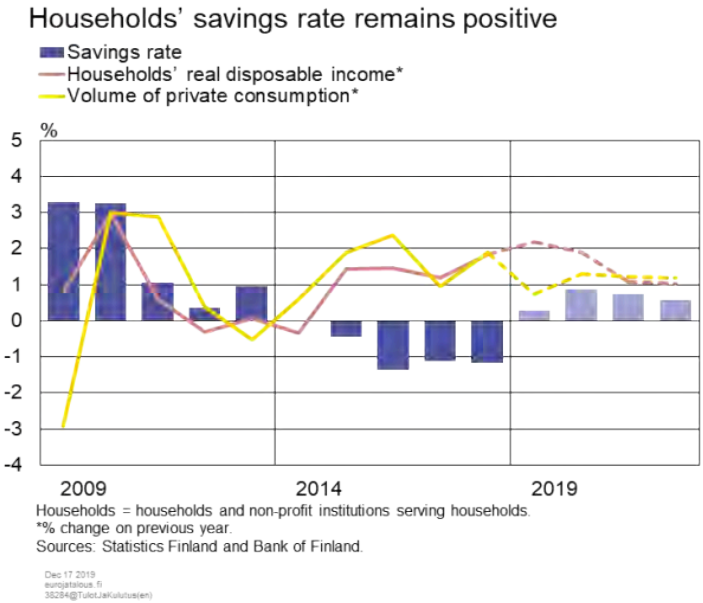
Chart 4.



Private consumption to grow slowly

Household purchasing power will strengthen over the forecast period as the employment situation remains good and earnings rise. The moderate inflation will also bolster purchasing power. However, consumers' confidence in Finland's and their own financial position has been weakening significantly for over a year now, overshadowed by the global economy, and consumers remain rather cautious. At the end of the forecast period, private consumption will grow, on average, in pace with purchasing power (Chart 5).

Chart 5.



Employment has improved rapidly in recent years, strongly supporting the strengthening of purchasing power. However, the improvement in employment is clearly slowing down, and in the early part of the forecast period the growth in household purchasing power will depend solely on wage increases. Earnings will continue to grow steadily, at an annual rate of just below 2.5%, which will be sufficient to sustain growth in purchasing power. Taking into account the rise in consumer prices, households' real earnings will grow in the forecast period at an average annual rate of around 1%. When also taking into account the improvement in employment at the end of the forecast period, households' purchasing power, i.e. their real disposable income will grow at an average annual rate of 1.5% in the forecast years. However, from 2021 onwards, annual growth in purchasing power will slow to around 1%.

In addition to wage increases, household income will rise due to increasing current transfers and other income, such as capital income. At the same time, however, purchasing power will be dampened by a tightening in taxation and an increase in earnings-related pension contributions. Overall, the changes to taxation and current transfers will increase households' disposable income.

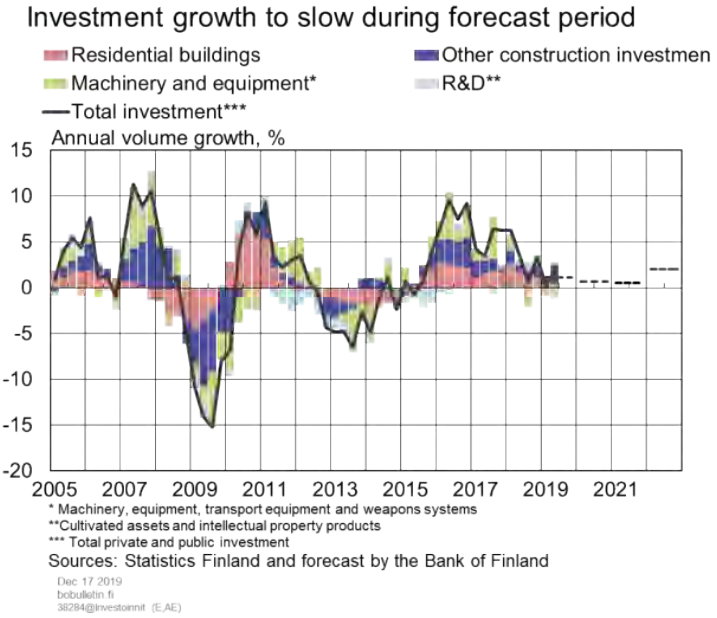
Consumer confidence began to decline in 2018, but the situation stabilised during autumn 2019. However, consumer confidence remains low. Private consumption will grow more slowly in relation to purchasing power in 2020, but in 2020 and 2021 the growth rates will be roughly the same (Chart 5). Private consumption is set to increase by an average annual rate of slightly over 1% in the forecast years.

The slowing rate of consumption growth will also be reflected in the household savings rate, which will remain moderately positive throughout the forecast period. Despite this, household indebtedness will also continue to rise, partly due to the attractively low cost of finance.

Private investment set to decline in 2020

Growth in private investment will slow over the forecast horizon, especially due to the slowdown in housing construction. Growth in corporate fixed investment will also moderate early in the forecast period. Growth in private investment will slow to just above 1% in 2019, and in 2020 investment will contract slightly. Towards the end of the forecast period, growth in private investment will moderately accelerate to around 2% (Chart 6).

Chart 6.



Fixed investment growth in the corporate sector is expected to develop poorly early in the forecast period. Investment will be slowed by both the weaker cyclical conditions and economic uncertainty (Investment weakened by uncertainty and the structure of the Finnish economy). This is reflected in the broad decline in business confidence indicators during the past year, most radically in manufacturing. Growth in corporate fixed investment may exceed expectations, however, if current plans for large-scale investments are widely implemented.

Growth in construction has turned down. In the first half of 2019, construction continued at a brisk pace, but during the autumn it has clearly slowed. The number of new building permits began to fall sharply in mid-2018, and the decrease in the number of permits will be reflected in housing construction, especially in 2019 and 2020. Permit developments also suggest that commercial construction will slow in 2019. Growth in renovation work has also faded. Investment in public service construction and civil engineering works will continue to grow as a result of the Government's investment projects.

Non-financial corporations' financing conditions will remain favourable. The interest rates on new corporate loans have remained low due to the accommodative monetary policy. Growth in domestic corporate loans has levelled off but is still brisker than in recent years. Access to finance is not a dominant bottleneck for companies. Instead, as the economic cycle cools, insufficient demand has become a dominant factor preventing growth for some companies in the manufacturing and services sectors.

Corporate sector profitability has improved uninterruptedly since 2013 and improved further in 2018. In the National Accounts, operating surplus is the counterpart of operating profits recorded in non-financial corporations' financial statements. In 2018, the operating surplus from ordinary activities rose by just above 4%. Good corporate profitability creates the conditions for higher-than-anticipated investment growth.

General government deficit and debt rising

Weakening economic growth and rising age-related expenditure are causing pressures for growth in the general government deficit and debt (Assessment of public finances 2019). In addition, discretionary fiscal measures under the Government Programme will increase expenditure more than revenues. These factors will deepen the general government deficit, further increasing the debt-to-GDP ratio. At the same time, the structural deficit in general government finances and the sustainability gap will increase (Sustainability gap larger than previously projected).

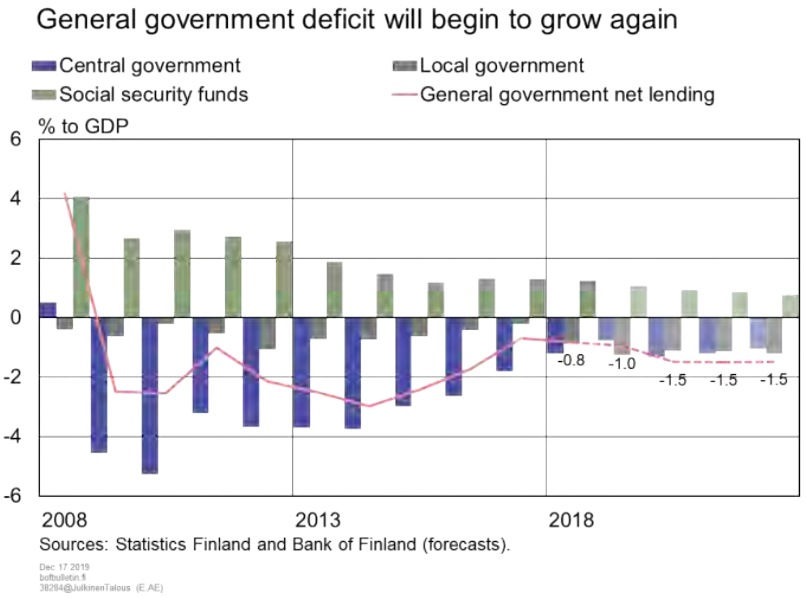
Permanent expenditure increases under the Government Programme will increase total public expenditure by an average of just under 0.5% in proportion to GDP in 2020 and 2021 (compared to a situation where the fiscal stance had remained unchanged). In addition, the Government's one-off 'future-oriented investments' will increase spending in 2020–2022 by some 0.5% to GDP.

With the increase in intermediate consumption[1] and employee compensation, the annual average growth in public consumption in 2019 and 2020 will be around 1.5% in real terms, after which growth will slow to less than 1%. The volume of public investment will grow rapidly, especially in 2020–2021. Declining debt-servicing costs will bring relief to the public finances. Also, unemployment expenditure will continue to contract significantly up to the end of 2019. Total expenditure will reach 52.9% in proportion to GDP in 2022.

Excise duties, such as taxes on tobacco and energy, will be raised in accordance with the Government Programme. On the other hand, the taxation of earned income for low-and middle-income households will be eased. Tax cuts and index adjustments in earned income taxation will reduce tax revenue in the general government finances. The total tax rate will be close to 42%, compared with just under 44% in 2016. The general government total revenue-to-GDP ratio will decrease in 2019, remain roughly unchanged in 2020–2021 and decrease by 0.2 of a percentage point, to 51.4% in 2022.

1. Intermediate consumption refers to the procurement of goods and services for the purpose of producing other goods and/or services.

Chart 7.



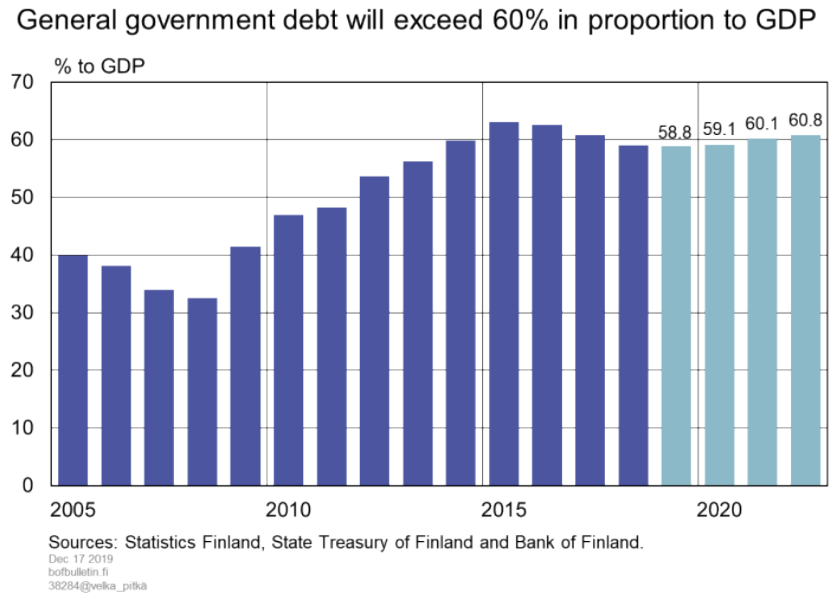
The central government deficit will decline to 0.8% relative to GDP in 2019 but, due to the aforementioned discretionary fiscal measures, will increase to 1.3% in 2020. After 2020, the central government deficit will begin to decrease slightly (Chart 7). The local government deficit increased in 2018 and will continue to increase through 2019. The pressure of rising age-related spending will increase expenditure by the municipal authorities. The increase in central government transfers in 2020 will temporarily reverse the increase in the deficit. After this, however, the deficit will continue to grow. The surplus on the earnings-related pension funds will continue to decline due to rising earnings-related pension expenditure and modestly growing property income. Other social security funds will still post a slight surplus.

Overall, the general government nominal deficit will deepen to 1.5% in proportion to GDP in 2020 and thereafter remain unchanged until the end of the forecast period (Chart 7). The deficit will, therefore, remain below the reference value of the EU Treaty, at less than 3%. On the other hand, the structural deficit will deteriorate to the extent that it creates a risk of non-compliance with the preventive arm of the Stability and Growth Pact.

The growth in the debt ratio will be curbed by covering part of the one-off expenditures agreed upon in the Government Programme by selling central government financial assets. Nevertheless, the general government debt ratio will exceed the 60% reference value set in the EU Treaty as of 2021. In 2022, the debt ratio will be 60.8% (Chart 8).[2]

2. The debt figures include the debt increases caused by the fighter aircraft procurement programme from 2021 onwards.

Chart 8.

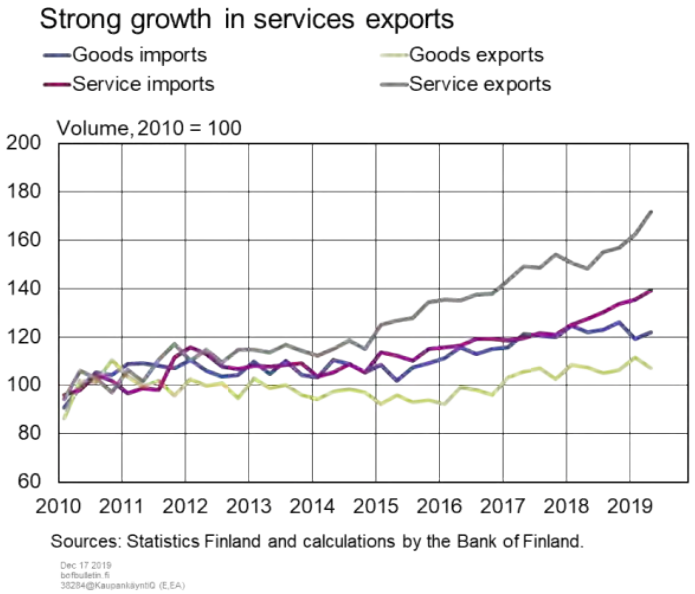


International uncertainty holds back exports

Finland has successfully strengthened exports and export market shares in recent years. Finnish export growth is overshadowed by the uncertainties created by protectionism and the weak outlook for world trade as well as slowing growth in the main export markets. The widespread weakening of confidence dampens global investment demand, which is important for Finnish exports. However, the general uncertainty and the slowdown in export market growth are expected to be temporary.

Finland's export structure is gradually shifting towards an increasing dominance of services, and export growth has been bolstered by strong growth in services exports since 2015. Meanwhile, the volume of goods exports has remained stagnant for several years (Chart 9). In mid-2019, the value of goods exports was almost the same as in 2017. Finnish services exports have grown especially due to growing export of business services, such as ICT services. However, there has also been a strong increase in the import of services, and Finland's foreign trade in services has been in deficit for many years. In recent years, however, the deficit has decreased. Overall, export growth slowed to 2.2% in 2018, which was slower than growth in the export markets. Net exports were particularly weak, as imports grew much faster than exports.

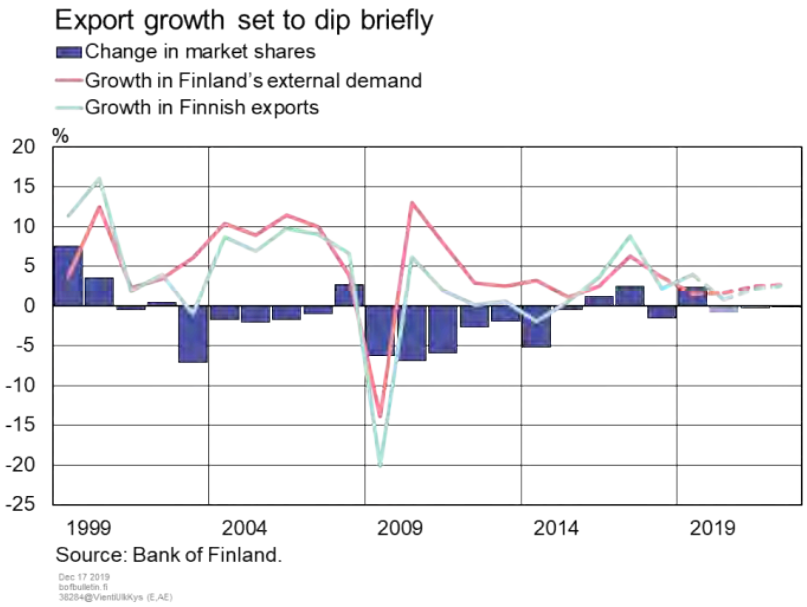
Chart 9.



The outlook for the global economy and the euro area has deteriorated markedly over the past year, and growth in the export markets has slowed significantly. Nevertheless, exports have grown quite strongly in 2019, partly due to temporary factors such as cruise ship deliveries. Net exports also improved clearly in 2019.

Export growth will slow to around 1% in 2020, as the pull from the export markets will remain almost as subdued as in 2019 and the impact of temporary factors on export growth will diminish. In addition, weak investment demand worldwide is hampering export growth in Finland, as Finnish exports are mostly focused on capital and intermediate goods. However, the dip in export growth will only be temporary, as the pick-up in the most important export markets in 2021 will start to accelerate export growth again towards the end of the forecast period. Demand for capital goods worldwide and in the euro area will gradually recover as uncertainty slowly begins to ease. As it stands, at the end of the forecast period and by 2022, export growth will accelerate to over 2.5% (Chart 10).

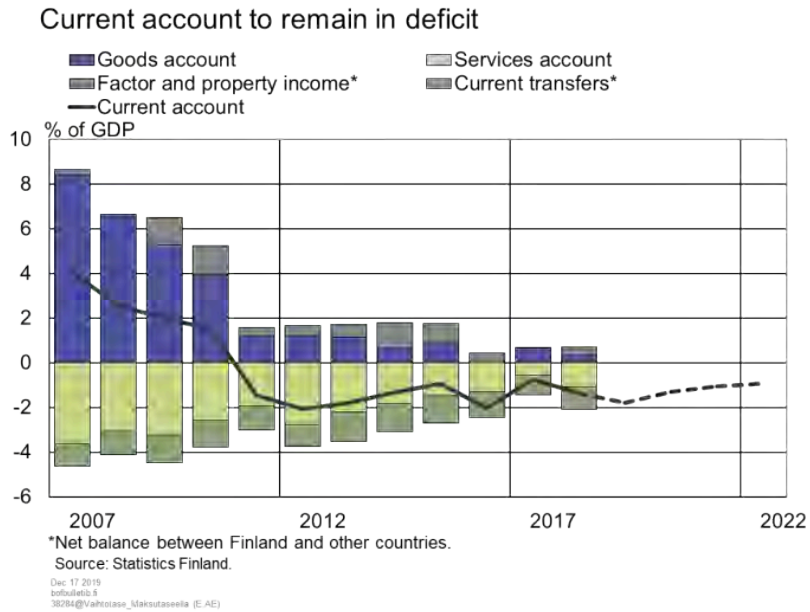
Chart 10.



As export growth accelerates towards the end of the forecast period, so will import growth, as the export industry utilises a lot of imported inputs. The pick-up in domestic demand will also increase the need for imports towards the end of the forecast period. Consequently, net export growth will remain modest.

Despite the good export performance of recent years, the current account has been continuously in deficit since 2011 (Chart 11). In total, the current account deficit has deepened by nearly EUR 25 billion over 8 years, which means that Finland has accumulated a corresponding amount of foreign debt. The main causes for the growing current account deficit include the service account deficit and current transfers. Not even the rapid growth in exports of recent years has been enough to erode the current account deficit. The negative balance of goods and services combined with current transfers paid will also keep the current account in deficit in the immediate years ahead.

Chart 11.



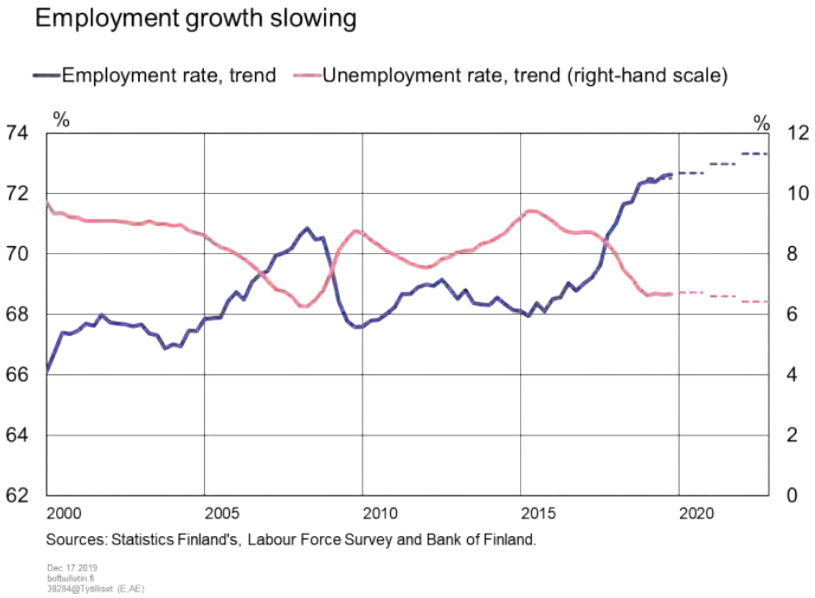
Supply and cyclical conditions

Over the past few years, GDP has grown faster than its estimated potential, but now growth is slowing cyclically. As the economic cycle cools, capacity constraints will ease slightly. Due to the slowing economic growth, demand for labour will also decline. Towards the end of the forecast horizon, economic growth will broadly mirror the pace of potential output growth. Productivity growth will remain subdued and the ageing of the population will constrain labour supply.

Employment growth will come to a temporary halt

Employment growth in 2019 has been slower than in the previous year and will continue to fade over the forecast period. Growth in the number of employed will come to an almost complete standstill in 2020 and will grow only slowly at the end of the forecast period. The employment rate will rise to just above 73% in 2022. The unemployment rate will remain at its current level of just above 6.5% over the next few years and decrease only slightly at the end of the forecast period. Labour force participation will increase slightly (Chart 12).

Chart 12.



Indicators for employment growth point to a broadly based weakening of employment developments. Companies' employment expectations have weakened, especially in industry and construction. The service sector is the only one in which employment expectations have not yet shown signs of deterioration. The number of job vacancies in relation to unemployed jobseekers, an indicator for the tightness of the labour market, has continued to increase despite the subdued labour market situation. However, the increased number of vacancies has not led to a reduction in unemployment. On the other hand, the rise in indicators of a shortage of skilled labour has come to a halt or indicators have begun to decline, suggesting a slight easing of labour market tightness and problems relating to labour market mismatches.

The exceptionally strong development of employment in recent years might, on one hand, be partly explained by the good cyclical conditions and, on the other hand, by structural labour market reforms carried out in recent years, which may have expanded the scope for employment growth. However, the employment effects of the structural measures may have already been largely achieved, and, in addition, some new measures, such as benefit increases and dismantling of the activation model, will further weaken the attractiveness of employment compared with unemployment.

The slower rise of labour costs relative to productivity growth may also have created conditions conducive to employment growth. The Competitiveness Pact lowered labour costs and, in real terms, they continued to grow more slowly relative to productivity in the subsequent wage negotiation round as well. Due to the weakened cyclical conditions, wage developments over the next few years will have a major impact on labour demand (Alternative scenario: Recovery in global economy delayed).

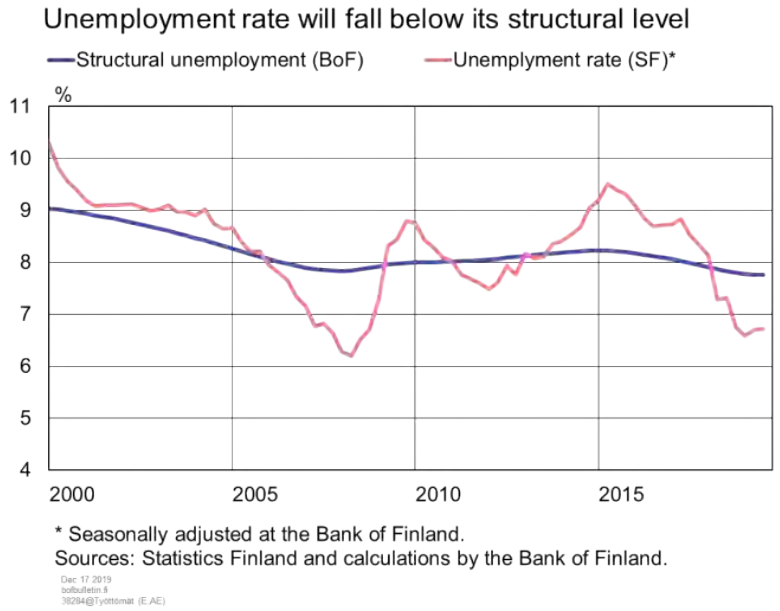
The decline in the working-age population (aged 15–64) will contribute to limiting the increase in the number of employed persons in the forecast years. The number of 15–74 year-olds will also begin to decline during the forecast period, which will further weaken

the supply of labour. Labour force growth will be muted early in the forecast period, but increase at the end, so that the participation rate will rise from around 66.5% in 2019 to just under 67.5% by the end of the period.

When employment growth peaked in 2018, the rapid growth was partly explained by the fact that economic growth was reflected on the labour market above all as an improvement in employment. At the same time, labour productivity actually slowed. Over the forecast period, economic growth is expected to be based on a slight growth in productivity, thus having only a limited impact on employment growth.

The unemployment rate has dropped by almost one percentage point from the previous year, but the decline is expected to come to a temporary halt at the beginning of the forecast period as the effects of the slowdown in the international economy reach Finland. The unemployment rate has remained below the estimated level of structural unemployment for a protracted period, which indicates that the declining unemployment is at least partly cyclical. The decreasing probability of finding work and the increasing number of laid-off workers and workers facing possible lay-off points towards a weakening unemployment trend. The estimate of the level of structural unemployment in the medium term has increased slightly, partly reflecting the weakening incentives for labour supply.

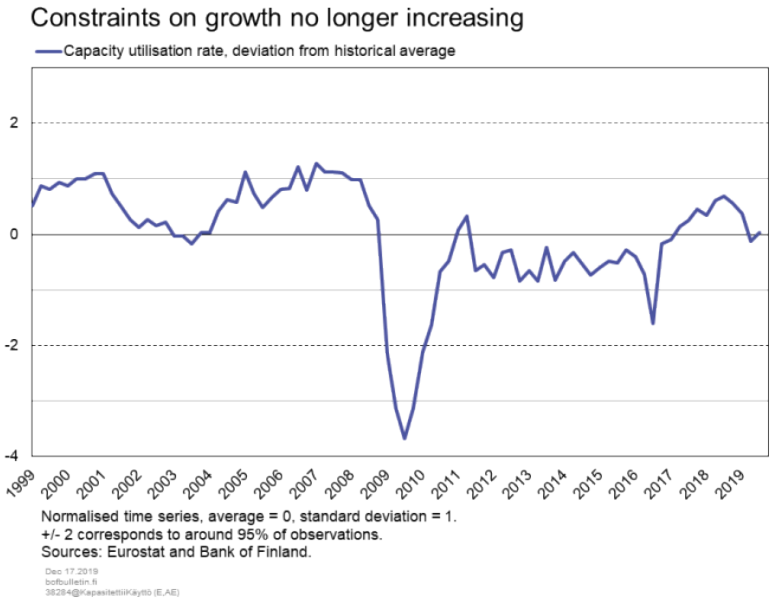
Chart 13.



Companies' capacity constraints easing slightly

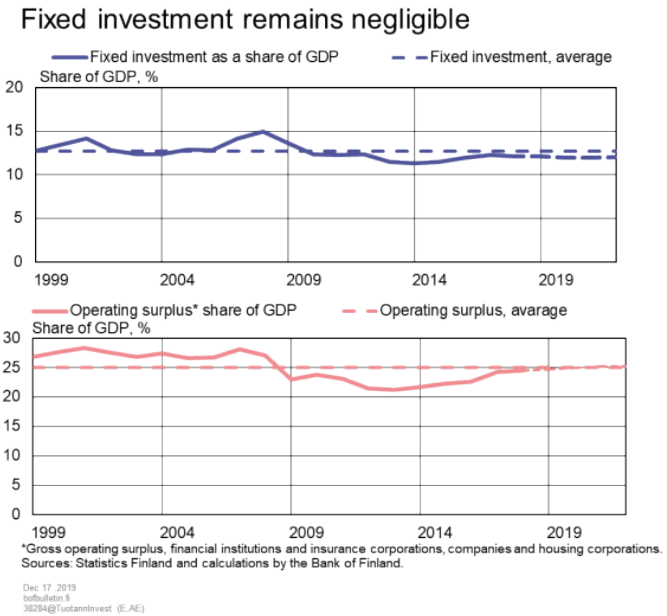
Since the cooling of the economic cycle, the constraints on growth have also stopped increasing. The capacity utilisation rate has decreased from its cyclical peak, and labour shortage problems as reported by employers have eased somewhat. Due to the weakening of the international economy, utilisation rates have fallen to their average level (Chart 14).

Chart 14.



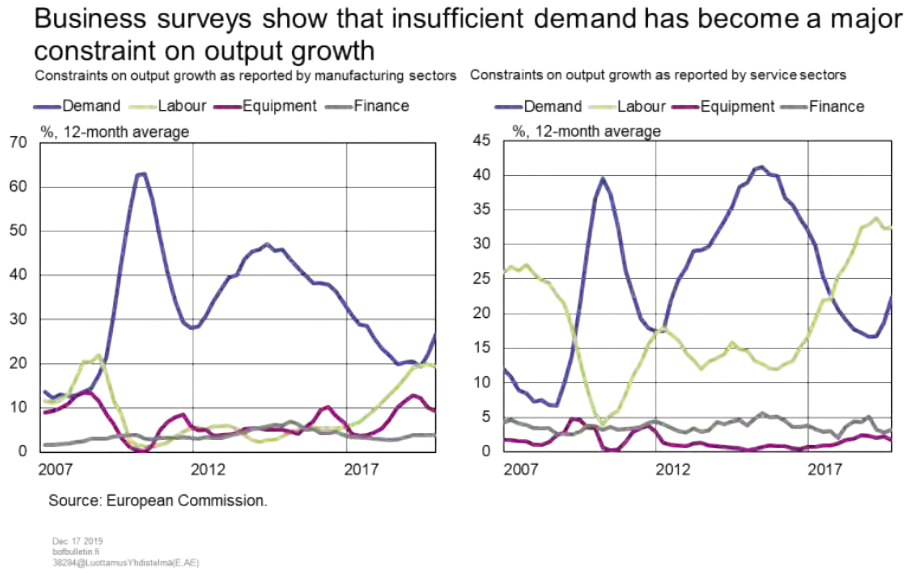
Due to the slowdown in economic growth, capacity constraints will slightly ease over the next few years. Corporate fixed investment will continue to increase, partly limiting the tightening of capacity constraints. Despite the increase in corporate fixed investment over the past few years and improved corporate operating surpluses, both investment and operating surplus in relation to GDP remain much lower than before the financial crisis (Chart 15). Production capacity increases have been hampered by international uncertainty and structural factors in the Finnish economy, such as weak productivity development, population ageing and the structural transition to a service economy. (Investment weakened by uncertainty and the structure of the Finnish economy).

Chart 15.



Due to the weakened cyclical conditions and shrunken order books, insufficient demand has become a major factor preventing growth, especially in the manufacturing sector, but also in construction and services (Chart 16). On the other hand, the shortage of skilled labour that manufacturing and construction have long suffered from has eased. Recruitment problems remain the most significant constraint on growth in the service sectors. In the construction sector, recruitment problems will continue to ease as growth in the sector slows, but labour shortages may be structural in many service sectors, as labour supply is restricted by the decline in the working-age population.

Chart 16.



Soft landing — and return towards long-term potential growth rate

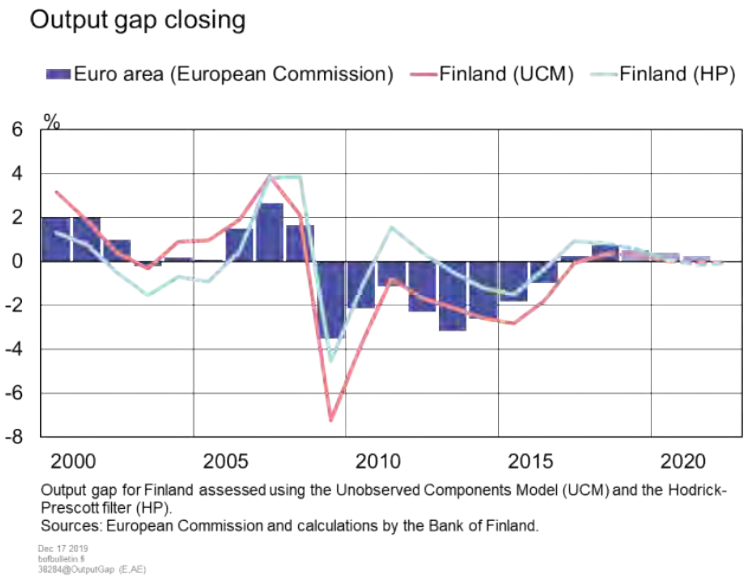
The peak of the economic cycle has passed. Over the past few years, GDP has grown faster than its estimated potential,[3] but now growth is slowing cyclically. At the end of the forecast period, GDP will grow more or less at the potential rate of output.

The output gap remained negative both in Finland and in the euro area for an exceptionally long period during the double-dip recession that followed the financial crisis, meaning that economic resources were being underutilised. As economic conditions lifted, the capacity utilisation rate also grew, unemployment decreased and the output gap turned positive. In the forecast years, the positive output gap will close, as economic growth will slow. The positive output gap in the euro area economy, which is important for Finland, is also melting (Chart 17).[4]As it stands, slightly more economic

3. Potential output is the level of real GDP when all the economy's factors of production are fully utilised.
4. The output gap assessment is based on e.g. the unobserved components model (An unobserved components model for Finland: Estimates of potential output and NAWRU).

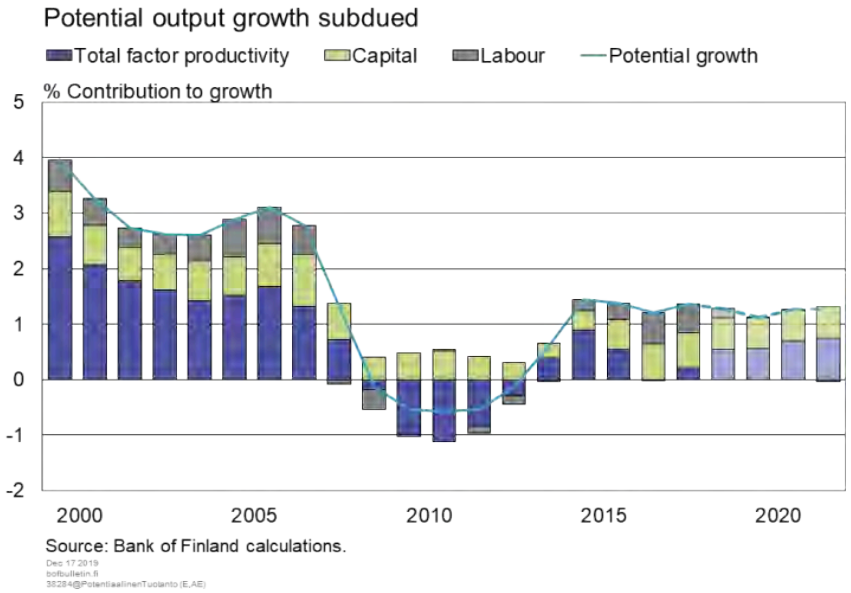
slack is available for raising production than before.

Chart 17.



The growth in potential output is much slower than before the financial crisis (Chart 18). Total factor productivity has strengthened since the protracted downturn, but it is nevertheless far below the record years. In 2019–2022, an increase in investment will boost the capital stock and strengthen potential output. Towards the end of the forecast period, the importance of labour as a source of potential output will fade. The supply of labour will wither despite the projected improvement in the employment rate. Labour supply will be limited as the 15–74-year-old population begins to decrease and structural unemployment remains high.

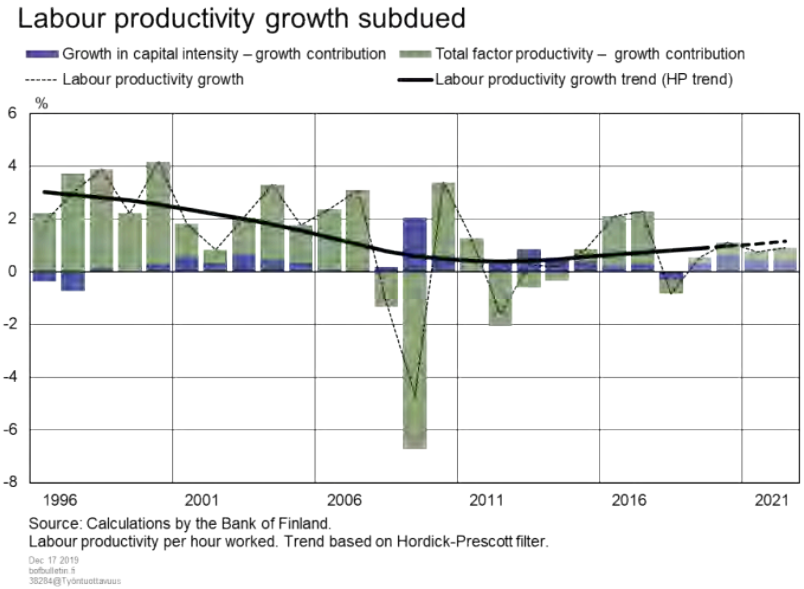
Chart 18.



During the cyclical upswing, labour productivity growth accelerated temporarily. When the peak of the cycle has passed, labour productivity growth will also slow. In 2019–2022, labour productivity will grow by less than 1%. The higher capital intensity of the economy will, however, improve labour productivity slightly, reflecting the larger amount of capital available per hours worked (Chart 19).

Labour productivity growth is set to remain considerably slower than in the first post-millennium years, when the annual growth rate averaged 2.5%.[5] Slower productivity growth has also been witnessed in many other advanced economies (see e.g. OECD Economic outlook, May 2019, chapter 2).

Chart 19.



Wages, prices and costs

Inflation will remain moderate, but will accelerate somewhat during the forecast period, as cyclical conditions improve slightly and nominal earnings pick up. Nominal wage growth will contribute especially to growth in services prices. Goods prices, however, are expected to continue to decline in the early part of the forecast period, so core inflation will remain moderate. The outcomes of the collective agreements due for renegotiation in 2019 and 2020 will play a role in laying the path for Finnish cost-competitiveness.

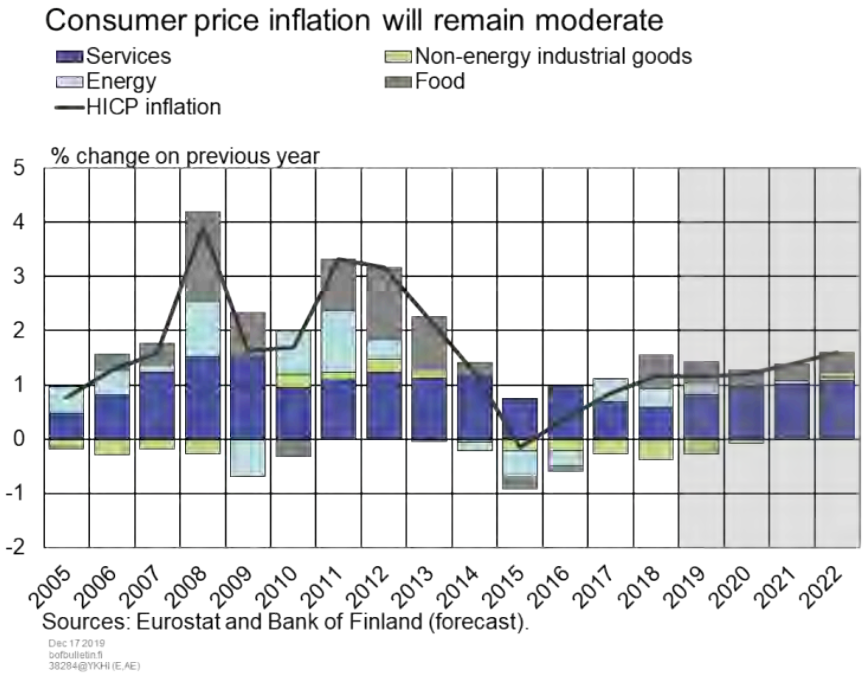
Consumer price inflation will remain moderate

In 2019, inflation as measured by the Harmonised Index of Consumer Prices (HICP) will remain at 1.2%, as in 2018. Price pressures will remain slight on account of the subdued phase of the economic cycle, which will continue to be reflected in prices in 2020, when

5. The slowdown in productivity growth reflects e.g. the smaller weight and lower productivity of high-productivity industries, the increased importance of services in the economy, a shift in investment from fixed capital investment to housing as well as a contraction in the share of R&D investment.

consumer price growth will persist at 1.2%. Inflation will accelerate to 1.4% and 1.6% towards the end of the forecast period, in 2021 and 2022, respectively, as cyclical conditions gradually pick up (Chart 20).

Chart 20.



Nominal earnings growth during the forecast period will contribute especially to services price inflation, which is projected to accelerate to over 2% in 2020. Goods prices, however, are expected to continue to decline domestically early on in the forecast period, while corresponding prices are on a slight rise in the euro area, on average.

Increased product taxes, which the consumer pays as higher prices on goods or services, will spur inflation during the forecast period. Excise duties on tobacco products will be increased stepwise over 2020–2023, as per the Government Programme. In addition, the taxation of soft drinks and transport fuels will be tightened in 2020. The tax increase on transport fuels will take effect in August 2020, and its impact will still be reflected in prices in 2021.

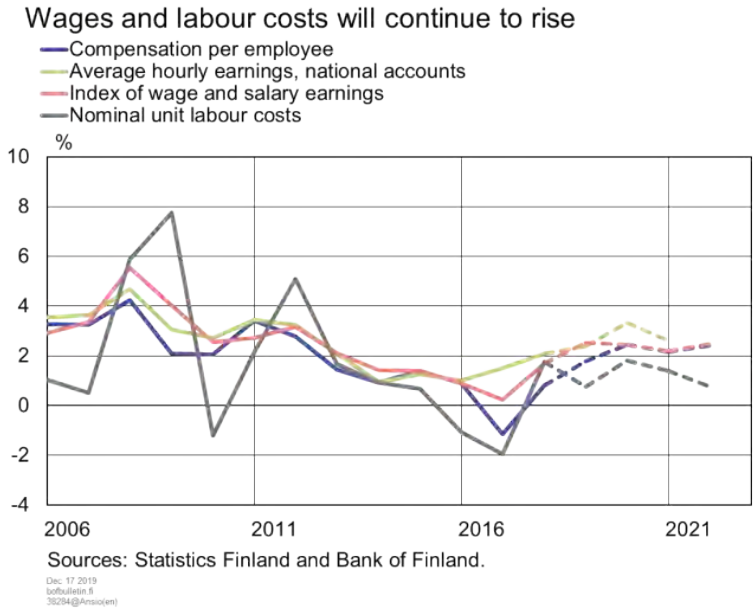
Import prices have, taken as a whole, remained at a similar level in 2019 as in 2018. One exception is energy imports, whose prices entered a decline in 2019 after strong growth in preceding years. Import prices will continue to grow at a moderate pace in the subsequent years of the forecast period.

Wages and labour costs will continue to rise

Growth in nominal earnings will continue to accelerate in 2019 (Chart 21). Average labour costs, which in addition to earnings also include employers' social security contributions, will increase by 1.8% in 2019. Average labour productivity will resume growth following a slump in 2018 and will grow at around 1% per annum during the forecast horizon. Unit labour costs will increase at an annual average of 1.3% during the

forecast period.

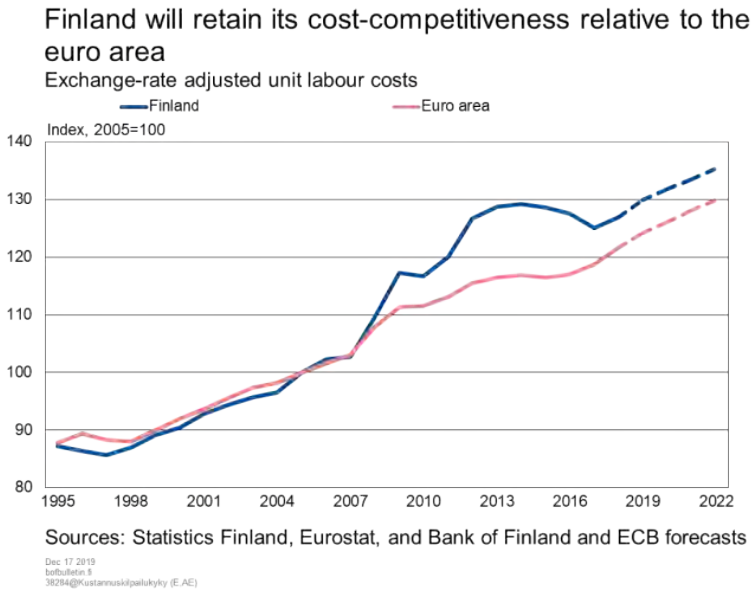
Chart 21.



Finnish collective labour agreements will be renegotiated extensively in 2019 and 2020. Because many of the negotiated outcomes are as yet unknown at the time of the forecast, the forecast's wage projections are based on the technical assumption that real wage growth will approximately reflect productivity growth in 2020–2022. This assumption is based on the relationship between real wages and productivity established in economic theory as well as their historical co-movement. If developments in the euro area are as forecast, Finland will retain the progress it has achieved in recent years in improving its cost-competitiveness relative to the euro area (Chart 22). Conversely, if wages increase faster than productivity, Finnish cost-competiveness will suffer.

In the economy as a whole, nominal earnings will increase by an average 2.4% per annum during 2020–2022, as measured by the index of wage and salary earnings, i.e. at a similar pace as in 2019. Equivalently, nominal earnings will rise at an average pace of 2.4% per annum during the forecast years, when measured as growth of average hourly earnings based on the wage bill. In 2019, average labour cost growth will be much more moderate than growth in average earnings, on account of the reductions in employers' social security contributions, but in the latter years of the forecast labour costs are projected to grow at a similar pace as average earnings. The Competitiveness Pact's temporary cuts to public sector holiday bonuses will expire in 2020, resulting in a temporary rise in wage growth.

Chart 22.



Risk assessment

The risks in the forecast are tilted on the downside. Developments in the global operating environment are surrounded by many uncertainties, the realisation of which would dampen economic growth. The outlook for Finnish exports is shrouded by the growing protectionism, possible further escalation of trade disputes, Brexit uncertainties, worsening internal problems in the Chinese economy and, in particular, the downside risks to euro area growth. By contrast, domestic risks are not as clearly on the downside, but could also, if materialised, lead to better-than-forecast developments.

Global risks suggest weaker-than-expected growth

Developments in global demand and hence in Finland's export markets will in 2019 remain much slower than expected in the June forecast. The largest downside risks stem from the global economy and the euro area (Table 3).

The trade war between the United States and China re-escalated in the summer. The effects of the trade war have shown as a slowdown in the global economy and trade. The Chinese economy has also been clouded by internal problems. Chinese growth is being held back by, for example, increased corporate funding problems, private and public sector debt accumulation and delayed structural reforms to the economy. A slump in Chinese growth easily aggravates problems in other emerging economies, too. In addition to fading trade flows, global growth has been overshadowed by the general uncertainty surrounding future economic developments. As regards Finnish exports, a drop in investment demand due to increased uncertainty has been particularly devastating.

The euro area is of key importance to Finnish exports. Continued economic growth in the euro area is surrounded by many uncertainties, which, if they materialise, may lead to

weaker-than-expected developments. As regards the individual euro area countries, the biggest question mark is over the direction of the German economy. German export industry has suffered severely from the trade disputes. Euro area growth is expected to start recovering in 2020, but investments, in particular, will take time to recover. A slower-than-expected recovery in the economy of the euro area and Germany would considerably hamper the outlook for Finnish exports and growth.

In the euro area, the confusion surrounding Britain's exit from the EU has also increased uncertainty. In the past few months it has looked increasingly unlikely that the UK will end up with a no-deal Brexit. However, new turns in the exit process may still occur.

Although the risks to the international economy seem to be predominantly on the downside, the possibility of stronger-than-expected developments cannot be entirely ruled out. In particular, a clearer-than-expected dissipation of uncertainties relating to the trade disputes and Brexit would support a faster-than-forecast recovery of the global economy and the euro area.

Table 3.

Weaker-than-expected developments in the euro area and Germany would hamper Finnish growth

External risks
(–) A steeper-than-expected slowdown of euro area growth, and the condition of the German economy
(–) Protectionism and a spreading trade war, and the impact on Finland's export markets
(–) A no-deal Brexit
(–) Escalation of the problems in the Chinese economy
(+) Faster-than-forecast dissipation of uncertainties relating to global economic developments

Realisation of global risks would hit exports

The risks to global economic developments particularly dampen the outlook for Finnish foreign trade. According to the forecast assumptions, global trade and Finnish export demand will gradually start to recover from 2021. However, a realisation of downward risks to the global economy could lead to weakened growth in global import demand, i.e. in Finland's export markets, which again could substantially dampen the growth of Finnish exports compared with the baseline forecast.

Risks to export market developments and the related forecast uncertainty may be illustrated by fan charts (Chart 23). The forecast uncertainty includes both export market

growth uncertainty and an assessment of predominantly downside risks. The fluctuation range of export market growth has been estimated based on the historical evolution of variables illustrating developments in export demand. In the scenario of Chart 23 it is assumed that growth in Finland's export markets will take a downward turn starting in 2020. Thus the uncertainty around the forecast baseline is asymmetric.

When this uncertainty is taken into account, growth in Finnish exports varies from –4 to 4% in 2020, whereas its baseline growth is estimated to be just below 1% (Chart 23). Thus a realisation of the risks to global trade could clearly dampen Finnish export demand and in a worst-case scenario lead to a contraction of exports already in 2020. Weakened export demand would also negatively affect the economy as a whole (Alternative scenario: Recovery in global economy delayed).

Domestic factors could also favour faster-than-expected growth

Economic developments are also attended by risks stemming from domestic factors (Table 4). Both private consumption and corporate fixed investment may grow faster than estimated. Corporate profitability is good, and funding costs low. Recently firms have been investing in production capacity, which could also lead to more-favourable-than-expected export developments, particularly as export markets recover towards the end of the forecast period.

Finnish labour costs have been rising moderately for several years, thereby strengthening the competitiveness of Finnish exporters. On the other hand, if pay rises in the ongoing wage negotiations grow beyond those in competing countries, the competitiveness of the export sector would weaken and exports could develop less favourably than forecast.

However, domestic investments have recently been concentrated on construction, and particularly housing construction. The housing construction cycle has already turned down and may deteriorate more than forecast if the economic recovery is delayed. This would weaken the development of total investments compared with the forecast baseline.

Although household purchasing power is still growing, a decline in consumer confidence is restraining consumption growth. If the uncertainty over the direction of the economy dissipates as the economy recovers, private consumption may gain momentum more swiftly than forecast.

On the other hand, household indebtedness has increased in recent years. Households' debt burden could be a risk in the event of a deteriorating economy and unemployment increasing significantly more than forecast. Indebted households would then have to cut their consumption to meet their debt-servicing costs, which would slow economic growth even further.

Chart 23.

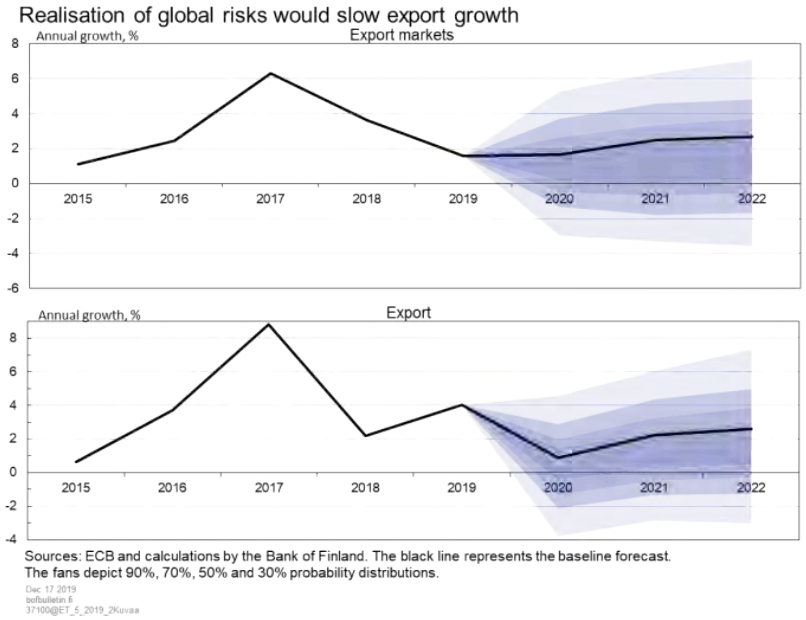


Table 4.

Good financial situation of domestic companies and households may lead to faster-than-expected growth

Domestic risks
(+) Faster-than-expected growth in corporate fixed investment due to good profitability
(+) Faster-than-expected growth in private consumption, reflecting economic growth
(–) Faster-than-expected contraction in housing construction
(–) Deteriorating export competitiveness, if pay rises considerably outgrow productivity performance
(–) Household indebtedness in a situation of a significantly weakening economy

Tags

summary, growth, forecast, Finnish economy

ALTERNATIVE SCENARIO

Recovery in global economy delayed

TODAY 3:00 PM • BANK OF FINLAND BULLETIN 5/2019 • ECONOMIC OUTLOOK

Uncertainty in the global economy poses a substantial risk to the Finnish growth outlook. In 2019, growth in the main export markets has been slower than previously expected, and uncertainty factors may cause further slower-than-expected developments. If materialised, the risks would particularly affect the exports of a small open economy such as Finland. This alternative scenario analyses the transmission of a temporary dip in Finnish export demand to different segments of the economy. The alternative scenario has been prepared using the Bank of Finland's dynamic general equilibrium model Aino.

Scenario assumptions

The basis of the alternative scenario is as follows. The recovery in the global economy is delayed, and growth in Finnish export demand in 2020–2021 is accordingly one percentage point lower year-on-year compared with the baseline (Table 1). The baseline refers to the Bank of Finland's December 2019 forecast. Correspondingly, the rise in export prices of Finland's competitors will year-on-year remain half a percentage point below the baseline due to the weaker cyclical conditions. This corresponds with the average relation between the development of Finnish export demand and of the export prices of competitors during Finland's participation in the Monetary Union.

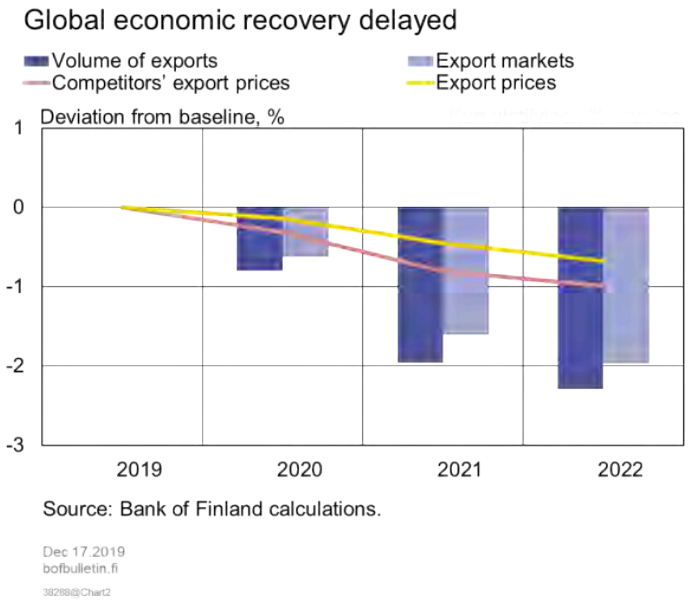
In the alternative scenario, wages remain at the baseline level for the next three years, i.e. they are not expected to react to the weakened foreign demand. This illustrates a

situation where the collective labour market and wage agreements have already been settled based on the forecast economic developments, and wages are inflexible downwards. The role of wages is significant in the economy's adjustment to shocks, particularly when individual member states of a monetary union cannot adjust their economy via the exchange rate or nominal interest rates (Juvonen et al.: Do wages contribute to flexibility and competitiveness in a monetary union?).

Negative effects throughout

With export demand weaker than expected, export growth is also slower than the baseline. There is also a slowdown in the growth of imports, as Finnish export companies use a lot of intermediate goods in their manufacturing processes. However, import growth slows less than export growth, because a portion of imports are for household consumption. Furthermore, the rise in Finnish export prices slows less than the rise in competitors' export prices (Chart 1), partly because the increase in wage costs of Finnish companies does not slow correspondingly. Thus the competitiveness of Finnish products on international markets deteriorates and export growth slows more than import growth. Finnish export companies lose market share.

Chart 1.



The slowdown in export growth leads to oversupply in the domestic economy, followed by negative price pressures. The rise in import prices also slows. Thus the rise in consumer prices throughout the entire review period is subdued compared with the baseline.

Due to the deteriorated cyclical conditions, labour demand decreases and the employment rate stops rising. In this scenario, the price of labour does not contribute to an adjustment of the economy, as the rise in average earnings is assumed to follow the baseline in 2020–2022. In 2022, the employment rate starts rising, in contrast to the baseline, and the rate is 0.6 of a percentage point higher in 2022. The real average hourly

earnings of those who have kept their jobs increases, as price rises are more subdued than before.

The effects of weakened export demand are also reflected in domestic demand, because export companies also use domestic production inputs. The growth of both private consumption and private investment slows in 2020–2022. Private consumption is determined particularly by households' purchasing power, which remains below the baseline due to the weakening trend of employment and slowdown of growth in aggregate wages. The general government deficit relative to GDP grows, because the rise in tax revenue slows and unemployment increases.

Overall, the decline in export demand slows foreign trade in particular, with the effects also being transmitted broadly through the entire economy. GDP growth slows by 0.2 of a percentage point annually, and in 2022 comes in 0.6 of a percentage point below baseline.

Table 1.

Alternative scenario: Global economic recovery delayed

		2019	2020	2021	2022	2022 level and deviation (%)
Percentage change on previous year, unless otherwise indicated						
GDP	Baseline forecast	1.3	0.9	1.1	1.3	212 358
	Alternative scenario	1.3	0.8	0.8	1.2	211 043
	Deviation	0.0	–0.2	–0.3	–0.2	–0.6
Imports	Baseline forecast	0.7	1.3	1.8	2.5	92 997
	Alternative scenario	0.7	0.8	0.9	2.1	91 371
	Deviation	0.0	–0.5	–0.9	–0.4	–1.7
Exports	Baseline forecast	4.0	0.9	2.2	2.6	93 069
	Alternative scenario	4.0	0.1	1.0	2.3	90 942
	Deviation	0.0	–0.8	–1.2	–0.3	–2.3
Private consumption	Baseline forecast	0.7	1.3	1.2	1.2	114 787
	Alternative scenario	0.7	1.2	1.0	1.0	114 220
	Deviation	0.0	–0.1	–0.2	–0.2	–0.5
Private investments	Baseline	1.1	–0.3	0.8	2.1	40 580

	forecast					
	Alternative scenario	1.1	–0.3	0.5	1.6	40 249
	Deviation	0.0	–0.1	–0.3	–0.5	–0.8
Harmonised index of consumer prices	Baseline forecast	1.2	1.2	1.4	1.6	108,0
	Alternative scenario	1.2	1.0	1.0	1.3	107,0
	Deviation	0.0	–0.2	–0.4	–0.3	–0.9
Export prices	Baseline forecast	0.0	0.1	1.4	1.9	110,5
	Alternative scenario	0.0	–0.1	1.1	1.7	109,8
	Deviation	0.0	–0.1	–0.3	–0.2	–0.7
Unemployment rate, %	Baseline forecast	6.7	6.7	6.6	6.4	6.4
	Alternative scenario	6.7	6.8	7.0	7.0	7.0
	Deviation	0.0	0.1	0.4	0.6	0.6
Employment rate, 15–64-year-olds, %	Baseline forecast	72.5	72.7	73.0	73.4	73.4
	Alternative scenario	72.5	72.5	72.4	72.5	72.5
	Deviation	0.0	–0.2	–0.5	–0.8	–0.8
Export markets	Baseline forecast	1.6	1.7	2.5	2.7	122.7

	Alternative scenario	1.6	1.0	1.5	2.3	120.3
	Deviation	0.0	–0.6	–1.0	–0.4	–2.0
Competitors' export prices	Baseline forecast	1.7	1.8	2.2	2.2	115.1
	Alternative scenario	1.7	1.5	1.7	2.0	113.9
	Deviation	0.0	–0.3	–0.5	–0.2	–1.0
Average hourly earnings	Baseline forecast	2.6	2.5	2.2	2.5	23.5
	Alternative scenario	2.6	2.5	2.2	2.5	23.5
	Deviation	0.0	0.0	0.0	0.0	0.0

Demand components in million euro at reference year 2010 prices. In the export market indicator and price indices 2010=100 excl. the HICP, where 2015=100. Average hourly earnings in euro per hour worked.

Tags

risks, global economy, exports, export markets, alternative scenario

Assessment of public finances 2019

TODAY 3:00 PM • BANK OF FINLAND BULLETIN 5/2019 • ECONOMIC OUTLOOK

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Sound fiscal policy should be conducted keeping in mind the economy's long-term challenges. Finland's population structure is becoming increasingly unfavourable on account of its declining working-age population and growing share of the elderly. This imbalance, together with rising age-related expenditure, will create a situation for the public finances where long-term general government expenditure is expected to exceed its revenue. In addition to the aforementioned sustainability gap, sound fiscal policy will prepare for future recessions and negative surprises.

Countercyclical fiscal policy in good and bad times?

Economic theory says that fiscal policy can in its part be used to smooth out the economic cycle. By saving in prosperous times, the general government can increase its fiscal room for manoeuvre for the bad times. Therefore, countercyclical fiscal policy does not mean that the business cycle is only smoothed when the economy is in the doldrums, by raising public expenditure.

Countercyclical fiscal policy can be implemented via automatic stabilisers, discretionary

(i.e. deliberate) policy measures or a combination thereof. Tax revenue and other general government revenue components, such as property income, automatically increase in good times and strengthen the general government's primary balance[1]. In bad times, conversely, tax revenue declines and general government expenditure, related to, for instance, unemployment, increases and helps stabilise growth. Because of automatic stabilisers, the very same fiscal buffers that are accrued in the good times provide the public finances with room for manoeuvre during the bad. By acting in this manner, the general government would automatically do its part in smoothing out the cyclical ups and downs of the economy. In addition to automatic stabilisers, countercyclical fiscal policy can be implemented by taking deliberate policy measures, for example by introducing fiscal consolidation when cyclical conditions are favourable.

Finland's economy needs a fiscal buffer which could be replenished through discretionary policy measures as well as through automatic stabilisers. Fiscal buffers are needed for mitigating future recessions but also for confronting longer-term challenges related to the public finances. Unfortunately, building up these buffers in the good times has not proven easy. Such has been the case, even in spite of advance knowledge of the strain put on the long-term sustainability of the public finances by population ageing and rising age-related expenditure.

The stance of discretionary fiscal measures can be examined by looking at changes in the general government structural primary balance. The structural primary balance is the general government balance adjusted for cyclical effects and one-off fiscal revenue and expenditure transactions and net of interest payments. Change in the structural primary balance thus serves as a proxy for the impact of discretionary fiscal policy on the general government balance.

If the change in the structural primary balance is negative, discretionary fiscal spending must have increased (or taxation eased by discretionary policy). Similarly, a positive change in the structural primary balance signifies a reduction in discretionary spending (or a discretionary tax hike). When the change in the structural primary balance is subtracted from the change in the nominal fiscal balance, the difference can be used to determine whether automatic stabilisers have been allowed to operate with countercyclical effect.

How to define good and bad times in the economy is a question in itself. One approach is to define bad times as periods of negative GDP growth and periods of positive growth as good. For example, a technical recession is defined as two consecutive quarters of negative GDP growth in the analysis of business cycles.

On the other hand, phases of the economic cycle are defined in terms of the difference between actual GDP and its long-term potential (trend), i.e. by estimating the so-called output gap. Using this approach, bad times are defined as periods when GDP is growing

1. The primary balance is the difference between general government revenue and expenditure, excluding interest payments on general government liabilities. The primary balance reveals whether or not general government revenue and expenditure are in balance at a given period. Interest payments are excluded from the primary balance, as they are costs associated with public debt accumulated in the past. The fiscal (or budget) balance, in contrast, looks at the difference between revenue and expenditure and also includes interest payments.

at a rate below its long-term potential (downturn). Conversely, good times are defined as periods when GDP is growing above its long-term potential rate (upswing). Using a third approach, bad times can be defined as periods when GDP falls below its potential level (recession), and good times when GDP is above its potential (boom).

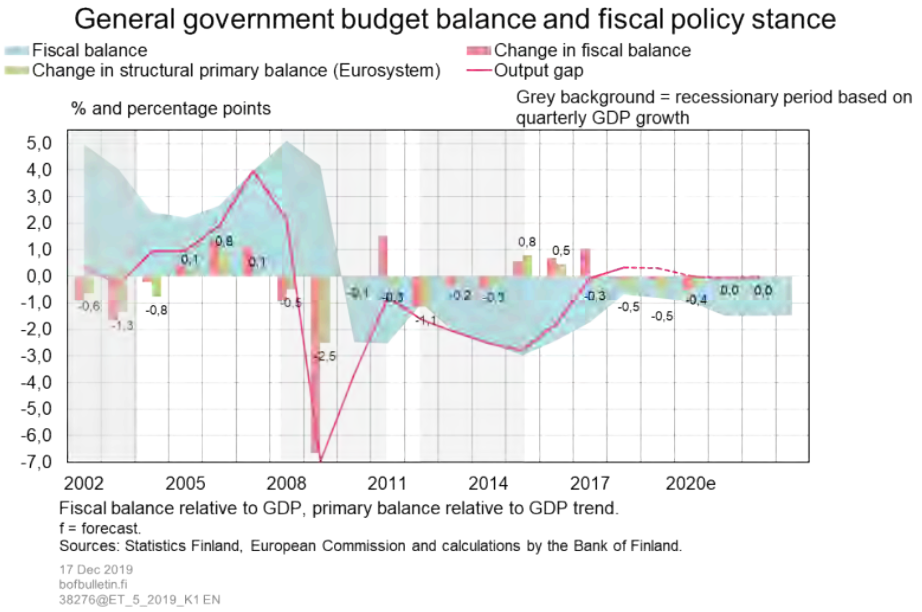
Discretionary fiscal policy has been countercyclical when the change in the structural primary balance has been negative during bad times and positive in good times. The difference between change in the nominal fiscal balance and change in the structural primary balance, in turn, reveals the effect of automatic stabilisers. If the change in the fiscal balance has in bad (good) times been even more deeply negative (positive) than the change in the structural balance, then automatic stabilisers have stimulated (restricted) the economy, in addition to discretionary fiscal stimulus (contraction).

Chart 1 reveals that in every recessionary period (areas in grey) since 2002, the economy has been stimulated by discretionary measures as well as automatic stabilisers.[2] The nominal fiscal balance and structural primary balance have both seen negative change. In at least some of the years during the recessionary periods, the change in the fiscal balance has been greater than the change in the structural primary balance.

In prosperous times, by contrast, fiscal policy has been less systematic in smoothing economic activity downwards and accumulating savings. Expansionary fiscal policy has also been practised procyclically, during years of already positive growth, such as in 2018. The general government fiscal balance was still positive in the early 2000s, but fell into deficit at the onset of the financial crisis.[3] The general government has not rebalanced since, and will remain in deficit until the end of the forecast period. When the entire inspection period beginning from 2002 is looked at as a whole, discretionary efforts to build fiscal buffers in times of positive economic growth are revealed to have been less substantial than the discretionary stimulus spending practised during recessions.

2. In at least some of the years during the recessionary periods, the change in the fiscal balance has been greater than the change in the structural primary balance. In these instances automatic stabilisers have taken effect to stabilise growth, alongside discretionary fiscal measures.
3. This is partly explained by demographics, as Finland's working-age population (15- to 64-year-olds) began to decline soon after the onset of the financial crisis.

Chart 1.



Following the financial- and euro area sovereign debt crises, the Finnish economy expanded in 2015–2018. Growth is also projected to continue, albeit at a diminishing rate, in 2019–2020. In 2015–2016, fiscal buffers were accumulated as a result of discretionary policy measures. By contrast, the general government fiscal balance weakened in 2017–2018, during years of positive growth and a booming economy, on account of tax cuts and reductions to social security contributions, among other factors.[4]

In 2017 the general government fiscal deficit shrunk in spite of discretionary fiscal stimulus, as the positive growth phase of the economic cycle meant that automatic stabilisers brought in extra revenue. In 2018, however, although remaining a year of robust growth, discretionary measures lowered the fiscal balance so much that little revenue was left over for rebuilding fiscal buffers. Similarly, in 2019, another year of continued positive growth, fiscal stimulus in the form of tax cuts seems to have prevented fiscal buffers from expanding.

This picture remains largely unchanged when using the output gap as an indicator for good and bad times. Only 2015–2017 are seen as poor years for the economy using this approach, as although GDP growth was positive during these years, the output gap still remained negative. On the other hand, the output gap did begin narrowing during this period, which might be viewed as the start of an upswing. Estimating the output gap is, however, subject to a considerable degree of uncertainty, especially when done in real time. Quarterly national accounts statistics, which are revised ex post, introduce their own problems to discretionary fiscal policy. Nevertheless, the main observation still stands, which is that fiscal stimulus in bad times has superseded the accumulation of fiscal buffers during good times, regardless of which interpretation of the economic cycle

4. Taxes and social security contributions were lowered to offset the Competitiveness Pact's negative effects on purchasing power. Employers' social security contributions were eased in conjunction with the Competitiveness Pact, while some of the incidence of these payments was shifted on wage-earners.

is applied.

Between 2015 and 2018 the general government successfully reduced its fiscal deficit and lowered its debt-to-GDP ratio. Given the unfavourable trend of the population structure, these should be seen as welcome developments. However, efforts to fully rebalance the public finances during the economy's upswing and subsequent boom have remained unsuccessful. Fiscal buffers, which are important for maintaining sound public finances over the long term, have been not been rebuilt either, even in spite of advance knowledge of the imminent rise of age-related expenditure and the substantial long-term sustainability gap.

The policy decisions for Finland's public finances taken in autumn 2019 have been made at juncture where economic growth, although diminishing, is not seen to be headed into recession and the output gap is not estimated to be negative, at least yet. Nevertheless, discretionary fiscal policy looks to remain expansionary in 2019–2020. This, for its part, only illustrates how difficult it is to rebuild fiscal buffers during high phases of the economic cycle.

Public debt-to-GDP ratio on the rise again

Public debt is accumulated not only through general government deficits but other factors as well. In the short term, annual deficits increase the accumulation of debt. However, when looking at the crisis years in Finland in the early 1990s, it becomes apparent that the expansion of the debt-to-GDP ratio during this period, from about 14% in 1990 to 56% in 1994, cannot be explained as the cumulative result of annual deficits alone. During the time, Finland was undergoing a banking crisis. Consequently, the central government was forced to take on substantial amounts of debt with its balance sheet assets and future tax revenues as collateral, not only to finance its budget deficit but also to capitalise banks which had fallen into crisis. This prevented the outright failure of banks and the loss of depositors' savings.

Similarly, the public debt ratio, which was some 30% relative to GDP in 2008, increased during the financial- and euro area debt crises as well as during the protracted recession in Finland that followed, to 63% relative to GDP in 2015. As before, the rise in the debt ratio is not completely explained by cumulative annual fiscal deficits, although they are an important factor. Because of the aforementioned, projections which are solely based on fiscal deficits can underestimate the development of general government debt in the future. Unpredictable crises and severe recessions impel the general government (and especially the central government) to take on debt, even in return for assets, to mitigate harmful effects on the aggregate economy.

Thus, over the long term, the accumulation of net general government debt is significantly influenced by the cumulative effects of fiscal deficits being larger than surpluses. In addition, the central government (and other general government entities) may borrow funds from the financial markets against assets and future tax revenue as collateral.[5]

5. In this sense, if the impact of future crises could be incorporated into the Finnish sustainability gap calculation

In the following, the general government debt ratio will be examined in greater detail, with its 2015–2018 developments outlined as well as looking at the 2019–2022 forecast period. Finland's public debt-to-GDP ratio increased from just over 30% before the financial crisis to clearly over 60% in 2015. The debt ratio was successfully lowered afterwards and settled in 2018 at about one percentage point below the 60% reference value stipulated in the Treaty on European Union. In light of the long-term challenges ahead, the lower debt ratio is most certainly welcome. Progress on this front can be attributed to favourable growth, low interest rates and discretionary policy measures taken by the previous government. Some of this progress, however, was achieved by selling state-owned assets.

In the coming years, however, rising age-related expenditure, weakening growth, and the discretionary measures of the new government will once again put the debt ratio on an upward path. Despite the sales of state-owned assets, the general government debt ratio will exceed the 60% reference value already in 2021. The debt ratio's rise is partly explained by a coinciding procurement programme for fighter aircrafts beginning in 2021 and 2020; however, it appears that reference value would be exceeded even without this. Although the overrun is not projected to be large, it will contribute to pressures for lowering the debt ratio in the future.

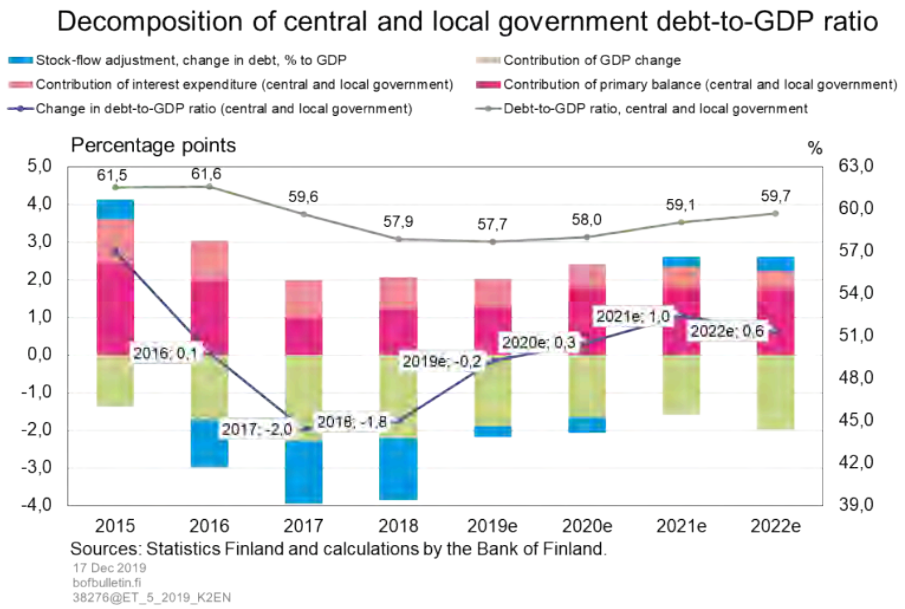
The debt ratio looks at general government debt relative to nominal GDP. Growth of the debt ratio decreases when the quotient's denominator goes up—that is, when nominal GDP expands. Lower levels of interest rates, in turn, mitigate the debt ratio's growth pressures when annual fiscal deficits are accumulated. Taken together, this means that the public debt-to-GDP ratio will fall as long as nominal GDP increases at a rate that is higher than the level of interest rates, if the primary balance change is not too negative and all other factors remain constant. The rise of Finland's public debt-to-GDP ratio has also been mitigated by the growth of property income received by employee pension providers as well as sales of government financial assets (shares and minority stakes).

Decomposing the general government debt-to-GDP ratio reveals that most of its change in Finland is attributable to the development of central and local government debt relative to GDP (Chart 2). In addition to the primary balance, the debt ratio has been affected by the factors outlined above.

In 2018, the ratio of debt held by central and local government contracted. Nominal GDP growth outweighed interest expenditure. In addition, debt principal was paid off with revenues received from sales of financial assets ('stock-flow adjustment' in Chart 2). In this specific year, the revenues received from the sales of state-owned financial assets were larger than the central and local government primary balances.

ex ante, it might even be larger than the estimated 4.7% to GDP. Granted, general government revenues could just as well be affected by new success stories in the future, similar to Nokia's rise in the mobile phone industry.

Chart 2.



In 2019–2020, the debt-to-GDP ratio will expand as central and local government expenditure increases more than revenue, primarily on account of the discretionary measures pursued by the new government. This is illustrated in Chart 2 as the effect of the primary balance. However, the effect of nominal GDP growth, net of relatively low interest expenditure, will curb growth of the debt ratio. In addition, sales of state-owned assets will also be used to curtail the debt ratio during the forecast period.

Yet reducing public debt by selling general government assets is not Finland's best long-term solution at the moment. Because of the long-term challenges that lie ahead, the general government should strive to run fiscal surpluses during years of favourable growth. The general government's net financial assets would thus increase, providing Finland with fiscal buffers to address its long-term challenges.

Fiscal rules assist in managing public finances over the long term

The rules governing the public finances and fiscal policies of the European Union Member States were already agreed in the early drafting of the euro area. The premise for this framework was that each Member State would manage its own fiscal expenditure, obligations and debt by itself. To prevent excessively high levels of public debt from building up, Member States agreed on rules limiting the general government deficit increasing the debt and the stock of general government debt itself. Accordingly, the Treaty on European Union stipulates that general government fiscal deficits should not exceed 3% relative to GDP, and that general government debt ratio should not exceed 60% to GDP. The framework for compliance and supervision is outlined in the Stability and Growth Pact.

In the 2019–2022 forecast period, Finland's general government deficit will remain below 3% to GDP. In contrast, the general government debt-to-GDP ratio will exceed the

60% reference value in 2021–2022, although this overstep is not projected to be particularly large, remaining under one percentage point. The debt ratio does risk growing later on, however, so decisive measures should be taken to prevent general government debt from 'getting out of hand' or limiting the fiscal space available in the long-term.

In the preventative arm of the Stability and Growth Pact, Finland also has the medium-term objective of achieving a cyclically-adjusted structural balance of about -0.5% to GDP. In 2019, a -0.5 percentage point 'significant deviation' looks likely to be avoided, although the structural balance will weaken in the range of -1.2 to -1.3 percentage points, relative to GDP. This is because of the allowance in public finances (0.5% relative to GDP) granted to Finland for 2017–2019, as per the structural reform clause.

In the European Commission's country-specific recommendations for 2020, Finland was urged to ensure that the nominal growth rate of net primary government expenditure not exceed 1.9% in 2020, corresponding to an annual structural balance improvement of 0.5% to GDP. Instead of this improvement, however, the structural balance will weaken to about -1.5%, as a result of factors which also include the Government's discretionary fiscal measures. Finland risks seeing a significant deviation from its medium-term objective in 2020, but will nevertheless remain in compliance with the Treaty's nominal fiscal balance and debt-to-GDP ratio criteria in the same year. Thus, by and large, Finland can be seen as being in compliance with the EU's fiscal rules.

Reforming the EU fiscal framework has been part of the discussion surrounding the further development of Economic and Monetary Union.[6] The EU's fiscal rules have worked in the sense that the total fiscal deficit of the euro area contracted from slightly over 6% to GDP in 2010 to 0.5% in 2018. It is clear that the existence of the fiscal framework has contributed to this development. However, at the same time, about a third of the countries in the euro area have a public debt ratio in excess of 85% to GDP, nor has there been much success in lowering the overall level of debt. The existing fiscal framework is thought to be rather complex, and there have been calls for greater transparency in the supervision of compliance.

In addition to the EU rules, Finland has long implemented central government spending limits with reasonable success. Accordingly, the Government has again allocated around 80% of its budgetary appropriations to a binding four-year framework. The spending limits are set in real terms and are thus subject to annual price and cost level adjustments as well as potential structural adjustments. The spending limits system is based on ex ante review, so the expenditure in the central government's budget proposal is restricted beforehand.

6. See e.g. Bénassy-Quéré et al. (2018), Reconciling risk sharing with market discipline: A constructive approach to euro area reform. CEPR Policy Insight no. 91, January 2018; Suvanto, A. et al. (2015). Improving the resilience of Europe´s Economic and Monetary Union, Ministry of Finance publications 37b/2015, 53

The sustainability gap may be closed through several different means

Finland's general government remains in structural (cyclically adjusted) deficit. In addition, the continuing decline of the population structure will add growing pressure on the long-term sustainability of the public finances. As the population ages, general government expenditure on care services and pensions will rise, since the Finnish general government includes statutory pension schemes. Meanwhile, the working-age population will continue to decline.

In the long term, general government expenditure will exceed its revenue. According to the latest sustainability gap calculation, this difference currently stands at about 4.7% in proportion to current GDP. If nothing is done to address the sustainability gap, it will before long lead to uncontrolled growth of general government debt. Thus, the general government must not only discover new sources of revenue but at the same time identify areas for savings.

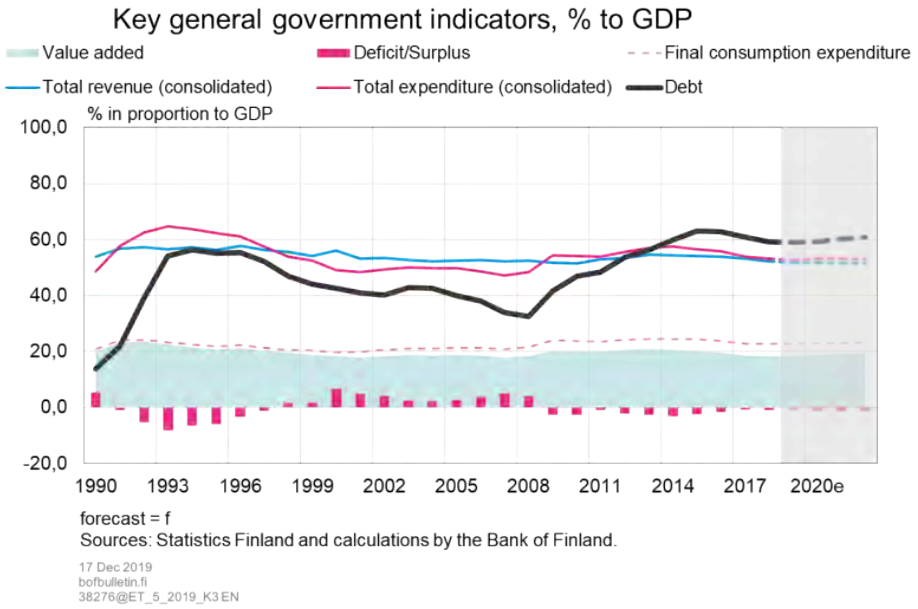
The existing general government revenue base could be strengthened by implementing structural reforms conducive to productivity and growth, as well as by raising employment and realigning the tax structure to be more conducive to growth. The structure of expenditure, in turn, should be closely monitored in future, due to the expenditure burden associated with population ageing. The public expenditure surveys published by the Ministry of Finance since 2015 are a particularly welcome addition for this reason. The most rapid phase of pension expenditure growth has already played out over the past decade. Health care and long-term care expenditure should be expected to rise over the coming years, and less has been done to prepare against this compared with the pension system.

One key question is which areas of general government expenditure might yield savings to be put towards closing the sustainability gap. Often the first answer is the provision of public services and improving its labour productivity.

The savings potential in public services can be estimated by comparing the size of different expenditure items. The value added of public services production, which includes employee compensation and wear and tear of machinery and equipment (fixed capital depreciation), comprised slightly over 18% of GDP in 2018. When purchases of intermediate materials and services used in the production of public services are added to this value added, the resulting sum is public final consumption[7], comprising 23.2% of GDP (Chart 3).

7. Being more precise the sales revenues and output for own use have to be deducted from the sum of production costs. In addition, current transfers provided to the households in the form of non-market goods and services must be added.

Chart 3.



Public service production expenditure, including wages and intermediate purchases, therefore comes to about one-fifth of GDP (in 2018). As such, saving on public services is unlikely to be a panacea for closing the entire sustainability gap.

In 2018, tax revenue (and tax equivalents) stood at 42% in proportion to GDP. In addition, the general government received property income, such as dividend and interest income, as well as entrepreneurial income from public enterprises, so that total general government revenue amounted to 52% in proportion to GDP. Together, tax revenue net of public service production expenditure (42% - 23% = 19%) and non-tax revenue (52% - 42% = 10%) comprise 29% in proportion to GDP, most of which is returned to the private sector. If calculated more precisely, public investment (4% including capital transfers), property expenditure (1%) and EU membership fees as well as fees for other international organisations (1%) should all be subtracted from the 29%. The final figure is roughly about 23% in proportion to GDP (over EUR 55 bn in 2018) and includes all transfers, welfare payments and benefits to households (including farmers), all subsidies paid to non-financial corporations, financial and insurance corporations as well as all central and local government grants paid to non-profit institutions serving households (foundations, associations, political parties etc.). In addition, the growing pension expenditure that is part of the statutory pension system belongs to this expenditure.

These figures suggest that it may not be straightforward to identify savings from public services large enough to cover the entire sustainability gap, while at the same time meeting an ageing population's demands for healthcare- and social services—even if productivity and economic growth could be boosted. In addition to services production, other savings might be discovered from the aforementioned areas of general government expenditure.

In order to reduce the consolidation pressures alluded to above, the general government will need to be able to build fiscal buffers—both in the short term and in the long term.

Fiscal buffers would also allow for stimulus spending in bad times and assist in preparing for future crises. Excessive general government debt, in contrast, may jeopardise the economy's ability to overcome its long-term challenges, while also limiting important fiscal space when the economy is strained.

Tags

public finances, deficit, debt, countercyclical fiscal policy

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Investment weakened by uncertainty and the structure of the Finnish economy

TODAY 3:00 PM • BANK OF FINLAND BULLETIN 5/2019 • ECONOMIC OUTLOOK


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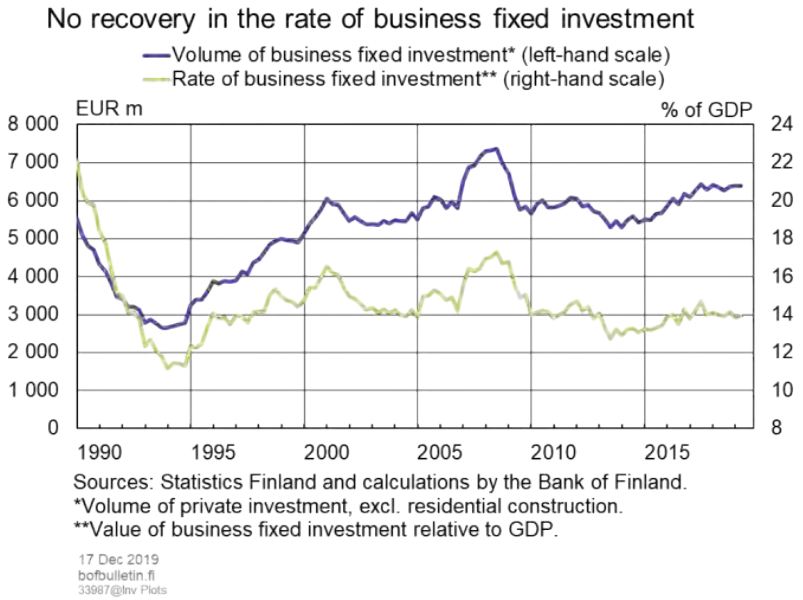
Global uncertainty is weakening growth in business fixed investment in Finland, and its impacts may be felt with a lag. Cyclical fluctuations caused by the uncertainty, however, conceal domestic, structural factors that have weakened investment throughout the 2000s. These factors include weak productivity growth, population ageing and structural changes in the economy towards a services economy. Productivity, in particular, can be influenced by many economic policy measures. Of these measures, innovation policy, for example, plays an important role.

Modest developments in investment

Investment growth in Finland has been modest since the financial crisis. Private fixed investment is at the level of the mid-2000s. The rate of productive investment, i.e. investment as a percentage of GDP, declined drastically in 2008 and since the crisis investment growth has been fairly subdued (Chart 1).

Chart 1.



The weakness of investment may reflect a number of factors. The financial crisis was a global financial market failure that triggered a deep recession in most developed countries – including Finland. In a recession, weak consumption and export demand will also decrease demand for fixed investment as companies curtail activities. The Finnish economy recovered slowly from the 2008–2009 recession.

The sluggish growth in investment in recent years has been explained mainly by heightened global uncertainty. Brexit, trade disputes between the United States and China as well as geopolitical uncertainty may have eroded the investment appetite of export companies, in particular, due to the uncertainties surrounding the path of world trade growth. These, too, are examples of cyclical demand factors.[1]

The weak growth in investment may also be explained by supply-side factors. These are typically structural factors that have an impact on the medium-term prospects for return on investment. It is possible that companies and investors consider the outlook for productivity growth in Finland to be subdued. The shrinking of the working-age population and structural changes in the economy, with a shift from a manufacturing economy towards a services economy, are structural factors that may explain the dearth of investment. All these factors weaken investors' expectations regarding return on investment.

What may explain the weakness of investment?

The various impacts and the relative importance of demand and supply factors on investment growth can be modelled using time series models. Time series models enable the assessment of the weight of various factors in the development of investment. Due to

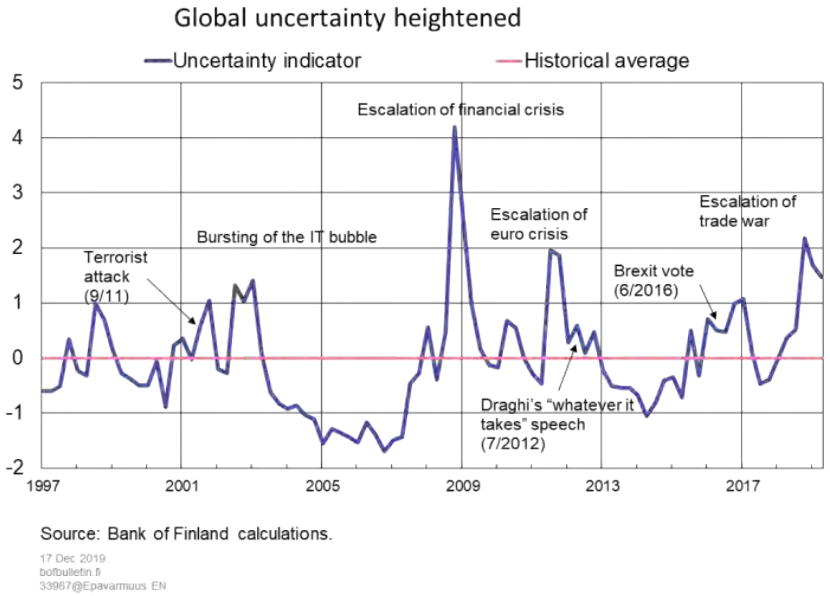
1. The impacts of uncertainty on the economy and investment are discussed, for example, by Nicholas Bloom, in: Bloom, N. (2014) Fluctuations in Uncertainty. Journal of Economic Perspectives 28 (2), 153–176.

the simultaneous impact of demand and supply factors as well as global uncertainty on investment, it is difficult to assess their relative importance without a model-based framework.

In this analysis, we use a so-called structural vector autoregressive (SVAR) model that is identified with sign restrictions.[2] We use as variables the volume of domestic private fixed investment[3] and their deflator, i.e. price, and an indicator of global uncertainty. The sample covers the quarters 1997Q1–2019Q2.

Uncertainty can be measured using a number of different variables. In the assessment of investments, particular attention is paid to global uncertainty that has a broad-based impact on the international economy. As uncertainty is a multidimensional issue, we use two measures of uncertainty: the EPU Index[4], which describes policy-related economic uncertainty, and the VIX Index, which measures volatility in the US stock market. The VIX index describes, in particular, uncertainty in the financial markets.

Chart 2.



2. For more information on SVAR models, see for example Lütkepohl, H. (2005) New Introduction to Multiple Time Series Analysis, Springer Science & Business Media, and Kilian, L. (2011) Structural vector autoregressions. Handbook of Research Methods and Applications in Empirical Macroeconomics, chapter 22. For more information on sign restrictions, see for example Uhlig, H. (2005) What are the effects of monetary policy on output? Results from an agnostic identification procedure, Journal of Monetary Economics 52, 381–419, and Fry, R. - Pagan, A (2011) Sign Restrictions in Structural Vector Autoregressions: A Critical Review, Journal of Economic Literature 49 (4), 938–960.

3. Private investment, excl. investment in residential construction.

4. The EPU index collects using automated textual analysis, news from the international press that contain words that are related to the economy, policy and uncertainty. The higher the frequency of uncertainty-related terms in economic newspapers, the higher the value of the index. In the global index, the search results from newspapers in 20 countries are weighted by GDP. For more information on the index and the method of collection, see Economic Policy Uncertainty index (https://www.policyuncertainty.com/): Baker, S. R., Bloom, N. & Davis, S. J. (2016) Measuring economic policy uncertainty. Quarterly Journal of Economics 131(4), 1593–1636.

In our analysis, we compile these uncertainty measures into one indicator of general global uncertainty that describes both economic policy and financial market uncertainty (Chart 2).[5] Global uncertainty reached considerably high levels following the onset of the financial crisis in 2008. Uncertainty also increased in Europe during the debt crisis, particularly in 2012. In the past couple of years, uncertainty has grown again, due to the UK's departure from the EU (Brexit) and heightened trade policy tensions.

In the time series model used in our exercise, the effects of demand and supply factors and the impact of uncertainty are separated with sign restrictions. Based on macroeconomic theory, we define in advance whether these factors will have an upward or downward impact on the volume and price of business fixed investment.

The impact of the strengthening of demand factors on the volume and price of capital goods is assumed as positive. In other words, an increase in investment demand, due to factors independent of supply, increases both the volume and price of investments. Improvements in supply factors, in turn, increase the volume of investment, but at the same time push down their price. For example, enhancement of the production process of a company increases the supply of capital goods and decreases production costs. The model also assumes that demand and supply factors do not have an impact on global uncertainty, which is not affected by Finland's domestic factors. The model also assumes that a decrease in global uncertainty will boost demand for investment and thus increase their volume and price in Finland. These sign restrictions are summarised in Table 1.[6]

Table 1. Identification of factors affecting investment, using sign restrictions

Sign restrictions

	Price of investment	Volume of investment	Uncertainty indicator
Demand factor	+	+	0
Supply factor	–	+	0
Uncertainty factor	+	+	–

5. Based on a statistical principal component analysis, information from the EPU and VIX indices can be converted into one variable that describes the correlation between these two indices. The SVAR model variable is the first principal component of the EPU and VIX indices.

6. In the SVAR model, the number of lags is two. A total of 10,000 models are estimated, and from these a representative model is chosen. The representative model is the model closest to the median of the impulse responses of all the accepted models. The identification of shocks is based on the assumption that the sign restrictions are valid for a quarter of a year.

Global uncertainty will slow investment growth for a protracted period

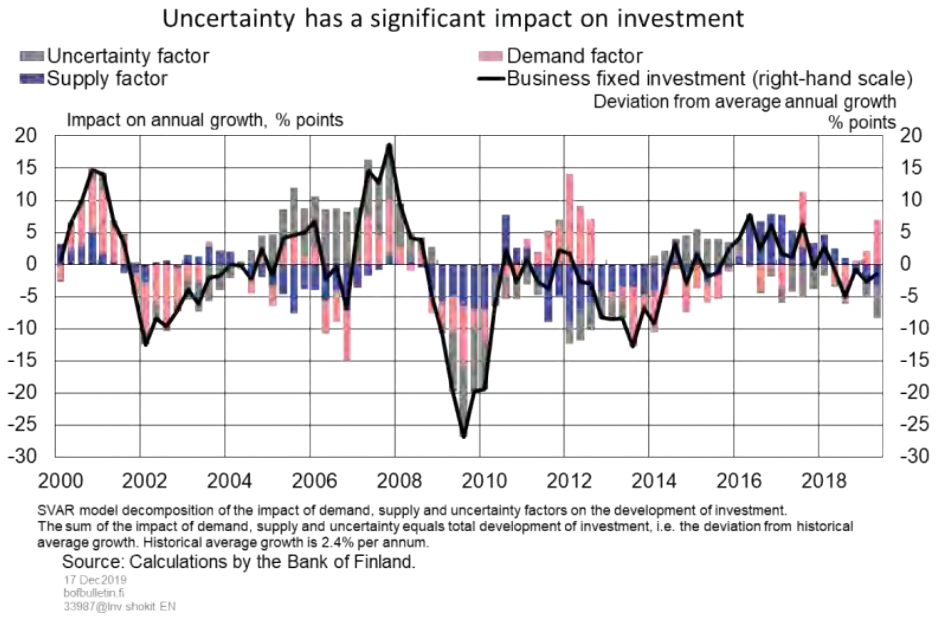
Based on the model results, uncertainty has a significant impact on the developments of business fixed investment (Chart 3). The significance of uncertainty increased in the years just before the financial crisis, as calm sentiment supported the higher-than-average growth in investment. In contrast, during the financial crisis uncertainty rose significantly particularly in the financial markets, which was reflected as weaker growth in investment. The slightly negative impact of uncertainty continued until the early years of the 2010s. Following the easing of the euro area debt crisis – and the famous "whatever it takes" speech by the President of the ECB Mario Draghi in July 2012, uncertainty in the global economy receded again, which strengthened conditions favourable for investment. Uncertainty stemming from global economic policy in recent years has, in turn, slowed growth in investment. Based on the result, it is clear that global uncertainty has had, and still has, a significant role in the development of Finnish investment.

The model results show, however, that fluctuations in uncertainty explain only to a minor degree changes in investment growth in the short term, covering a couple of quarters.[7] Instead, they explain around one quarter of fluctuations in investment growth in the medium term of a couple of years, but also in the long term. In the short term, other demand factors explain the majority of the fluctuation in investment growth. This may be due to the fact that uncertainty does not have an impact on ongoing investment projects, but on decisions on new investments, in particular. Companies' planning horizon in new investments is usually fairly long, and the investment cycle from the planning stage to deployment may be several years. An increase in global uncertainty is thus reflected in investment growth for a very long time into the future.

Supply-side factors, the other hand – for example expectations for long-term economic growth and productivity developments – explain, in particular, long-term growth in investment. They are therefore, by nature, structural factors.

7. The impact of various shocks on investment growth with various time horizons can be described with a forecast error variance decomposition (FEVD).

Chart 3.



Changes in investment demand, stemming from economic uncertainty, and other demand factors cause cyclical fluctuation in investment. Just before the financial crisis, when the cyclical situation was favourable, demand factors other than uncertainty-related factors supported investment, but the impact turned negative during the financial crisis (Chart 3). In the early 2010s, demand picked up again, which alleviated the lacklustre investment sentiment that was triggered by supply-side factors and uncertainty factors. Weak domestic demand during the period of slow economic growth in 2013 and 2014, on the other hand, dampened investment.

In contrast, supply factors have eroded growth in business fixed investment more or less throughout the period under review. From the early 2000s until 2015, supply factors either had a slowing impact on investment growth or did not have a significant impact on its rate of growth. It is particularly noteworthy that during the years of rapid growth in the first half of the 2000s, investment was fuelled by robust demand, which masked the structural problems in the supply of investment. In 2015–2017, supply-side factors both strengthened investment growth and dampened the rise in prices for investment, and at the same time, partly offset the weakness stemming from global uncertainty. The stronger investment growth in these years was mainly due to the temporary improvement in total factor productivity. In the past twelve months, the impact of supply factors on investment growth has, however, again been minor or negative.

Cyclical fluctuations conceal structural problems in investment

The modelling results show that cyclical fluctuation caused by supply factors and uncertainty mask supply-based, structural problems that have dampened investment growth in Finland for a protracted period since the early 2000s (Chart 3).

A simple time series model cannot say with certainty what these supply factors are. We

can, however, analyse the correlation of the observed economic factors with the supply factor estimated in the model. Based on macroeconomic theory, the factors affecting the supply of investments include expectations of the real rate of return of investment, growth in total factor productivity, structural change in the economy towards a more service-intensive economy, and the shrinking of the working-age population. Domestic sectors' savings and investments from abroad are channelled via the financial system into fixed investment that can be utilised in production processes. The factors described above, related to the future outlook and growth potential of the economy, have an impact on the willingness of both domestic and foreign investors to fund investments in Finland and therefore on the supply of investment.

Here, structural change is described as the share of manufacturing in the value added of the entire economy. Demographic change is described as the share of the working-age population in the total population. Return on investment is measured as the ratio of corporate operating surplus, i.e. profit, and net capital stock (excl. residential housing).

Results of this analysis are presented in Table 2. They only describe the statistical correlation between the variables and not the cause and effect relationship between the variables. The second column shows the correlation between each variable and the estimated supply factor that has an impact on the volume of investment. The third column in the Table shows the coefficient of determination in a simple regression model with one independent variable, where the estimated supply factor is explained by each observed variable.[8] The coefficient of determination measures the magnitude of the movement in a supply factor explained by movements in each variable.

Table 2. Factors explaining developments in the supply of investment

Variable	Correlation with the estimated supply factor	Coefficient of determination (%)
(1) Operating surplus relative to productive net capital stock	0.28	28
(2) Growth in total factor productivity	0.27	27
(3) Labour force participation rate (15-64-year-olds) of total population	0.28	22
(4) Share of manufacturing of total value added	0.48	29
(1) + (2) + (3) + (4)		49

The Table shows that each variable correlates positively with the estimated supply factor.

8. Each regression includes a maximum of four lags of the explanatory variable. Here, the coefficient of determination is the adjusted R2 value for each regression.

The strongest correlation is witnessed for the share of manufacturing value added, which is one of the measures of structural change in the economy. Each variable on its own explains 22–29%, i.e. a fairly large portion, of the fluctuation in the supply factor. The last row in the table shows that these four variables together explain about half of the movement in the estimated supply factor.[9]

Based on macroeconomic theory, the volume of investment in the long term is defined mainly by growth in productivity and labour input. Their subdued outlook is also reflected in the weakness of domestic expectations for the return on business fixed investment.

The results shown in Table 2 confirm the interpretation that growth in domestic business fixed investment has been weakened for a protracted period by structural factors, for example the shift in the economy from a manufacturing economy towards a services economy, population ageing, slower growth in total factor productivity, and expected return on investment.

The drastic drop in productivity growth in Finland after the financial crisis is largely explained by the halt in research and development (R&D) investment, which in turn was due to, in particular, the decline in the Nokia-driven electronics industry (Several reasons behind weak labour productivity). Productivity growth has also been slow in other developed countries, however, and intra-industry productivity growth has been sluggish in Finland. The Finnish Productivity Board, moreover, states in its report[10] that weak productivity growth in the manufacturing sector in the 2010s may be explained by the decrease in R&D investment, particularly in electrical engineering and electronics, but also in other subsectors of manufacturing.

Similar conclusions are also presented by, for example, Ali-Yrkkö, Kuusi and Maliranta (2017).[11] According to the authors, the rate of investment has been pushed down by the weak future prospects for productivity growth, and partly also by the anticipated decline in the labour force. They also note that the decline in the investment rate may also be explained by changes in the production structure as well as digitalisation. Large companies have outsourced production to smaller companies and possibly also channelled investments abroad. Digitalisation, in turn, decreases the need for fixed investment. But digitalisation should, however, be reflected as a pick-up in the growth of intangible investment, which thus far has not happened. It is therefore possible that new technologies are spreading to the economy slower than before.

Hukkinen et al. (2015), in turn, note that companies' access to finance in Finland has not hampered investment since the financial crisis.[12] Access to finance has been good and

9. The multivariable regression includes the variables (1)–(4) listed in table 2. From each explanatory variable, the statistically significant lags are included (a maximum of four lag terms).
10. Finnish Productivity Board: State of productivity in Finland. What stopped the growth, will it start again? Publications of the Ministry of Finance 2019:21.
11. Ali-Yrkkö, Jyrki, Kuusi, Tero and Maliranta, Mika: Why Have Business Investments Decreased? ETLA Reports No 70, 16.2.2017. (https://pub.etla.fi/ETLA-Raportit-Reports-70.pdf)
12. Hukkinen, Juhana, Kajanoja, Lauri, Kerola, Eeva, Mäki-Fränti, Petri, Pylkkönen, Pertti and Vauhkonen, Jukka (2015) Mistä investointien vaimeus johtuu? (in Finnish only). Euro & talous 19.10.2015.

credit standards have eased significantly as a result of accommodative monetary policy.

Itkonen and Mäki-Fränti (2016)[13] note that the weak development in the capital stock may also be explained by the high price of capital goods in Finland relative to the other euro area countries. Return on capital is not sufficient, as before, to cover expensive investments if growth in total factor productivity is weak.

Productivity growth can be supported by economic policy

Investment improves productivity in the various parts of the production process. And in the long term, productivity growth is the main source of economic growth and improvements to the standard of living. The conditions for productivity growth can be influenced via a variety of economic policy measures, by creating a favourable operating environment for companies, by promoting, for example, the flexible functioning of the labour and housing markets and by ensuring companies' access to finance and the level of educational attainment in the population. In addition, to ensure long-term productivity growth, measures can be taken to improve the incentives for domestic innovation activity and thereby address the weakness of investment in a sustainable manner.

For a developed economy such as Finland, it is increasingly important to take care of its ability to improve productivity with the help of new innovations. In the 20th century – when Finland was far behind the forefront of technology – it was easy to improve the productivity of production activity by taking advantage of our position as a latecomer and by adopting practices and inventions proven by others. Now, as the Finnish economy is closer to the forefront of technology, innovation, the adoption of new innovations from abroad, and raising the level of productivity require much more effort.

There are however still differences in productivity levels between companies (Divergence of productivity growth in Finnish companies). Company-level productivity can also be improved by other measures than only technological innovation, for example by adopting best practices and thus transitioning closer to the forefront of technology. So-called creative destruction, too, improves productivity in the economy as non-thriving companies exit the market and new companies with higher productivity enter the market.[14]

Research, development and innovation (RDI), however, also play a significant role in the promotion of economic growth. Based on evidence from research literature, supporting RDI activity with public funds may in many cases be useful because, due to the accumulation of knowledge, RDI activity also benefits others, not only those engaged in the RDI activity.

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13. Itkonen, Juha and Mäki-Fränti, Petri: Kuihtuva pääoma [Shrinking capital]. Analysis article, in Finnish only. Euro & talous 9.2.2016.
14. Creative destruction and its impact on the Finnish economy has been examined, for example, in the report by the Finnish Productivity Board: State of productivity in Finland. What stopped the growth, will it start again? Publications of the Ministry of Finance 2019:21.

Innovation policy is discussed by, for example, Takalo (2014)[15] and Bloom et al. (2019)[16]. They discuss policy measures that could be effective, at least in some circumstances. These measures include tax policies to favour research and development, attracting educated labour from abroad, policies that support basic research and higher education, and increasing competition between companies both in the goods and labour markets. Hetemäki (2019)[17], too, recommends, for example, tax subsidies to intangible and tangible investment and the promotion by public funds of the openness and transparency of information and projects of artificial intelligence.

Einiö (2013)[18] notes, however, that to be useful, public funding should be channelled particularly to innovation activity that would not be profitable with market-based funding but is socially useful. To ensure the effective allocation of public subsidies, it is important to assess the effectiveness of the subsidies and that they do not replace market-based funding of innovations.

Improvements in investment require long-term policies

In practice, it is impossible to tackle with domestic policy measures uncertainty that stems from the global environment. At the same time, global economic uncertainty highlights the importance of domestic economic policy. Many structural factors in the economy, such as the increasing share of the service sector in the economy and population ageing, are trends that are difficult to affect via policy measures. The focus should therefore be, in particular, on policy measures aimed at supporting a favourable environment for investment and productivity growth.

Due to the changes in the structure of production and the increasing share of the service sector in the economy, the Finnish economy may be transitioning to a situation in which the rate of investment is permanently lower than in previous decades and there is less need for investment. Increasing investment activity as such cannot therefore be the objective of economic policy. Investment can, however, contribute to ensuring future productivity growth and improvements in the standard of living, also in a service-intensive economy.

Strengthening the operating environment of companies plays a key role in safeguarding the foundations of investment and economic growth in a sustainable manner. The conditions for competition must be ensured both in the goods and labour markets. The market entry of new companies should be encouraged. This promotes the appropriate allocation of labour and capital between the various industries, which in turn supports productivity growth in the entire economy.

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18. Einiö, E. (2013) Innovaatioiden tukeminen kannattaa. VATT Policy Brief 1-2013 (in Finnish only). (https://www.doria.fi/handle/10024/148915.)

Society's engagement in innovation activity requires a long-term innovation policy, the full effects of which will become evident only in the long term. Irrespective of uncertainty and other cyclical fluctuations, policy measures should aim at supporting the long-term factors of economic growth. Population ageing and the shrinking of the labour force will increase the importance of productivity growth as an engine of growth.

Tags

uncertainty, productivity, investment

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Sustainability gap larger than previously projected

TODAY 3:00 PM • BANK OF FINLAND BULLETIN 5/2019 • ECONOMIC OUTLOOK

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According to the Bank of Finland's estimate, the sustainability gap in Finland's general government finances is 4.7% relative to GDP. The estimate is a 'pressure projection' that quantifies the fiscal adjustment that stabilises the debt-to-GDP ratio over the long term. The most prominent factor affecting the sustainability gap is the ageing population. In addition, the estimate is higher compared with the previous year is due particularly to the weaker cyclical conditions and fiscal outlook for the immediate years ahead.

What is fiscal sustainability?

The sustainability of the public finances, or fiscal sustainability refers to the ability of a government to sustain the current level of public revenue and expenditure without threatening fiscal solvency or defaulting on the costs of servicing public debt. The starting point of a fiscal sustainability assessment is the current level of general government debt and, especially, its ratio to GDP.

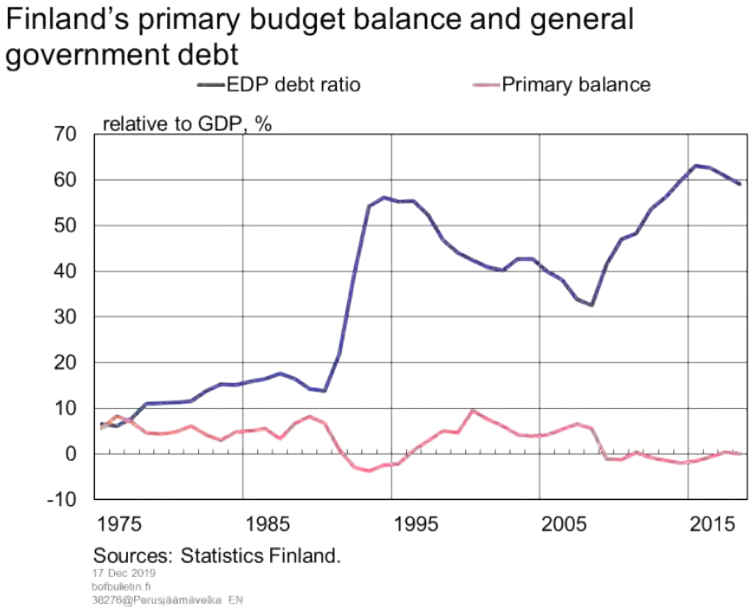
In long-term assessments, fiscal sustainability is gauged with reference to the intertemporal budget constraint. The general government intertemporal budget constraint is satisfied if the current level of public debt will be covered by the present value of future primary budget balances.[1] Primary balances are calculated taking into

account the projected growth in future age-related expenditure. Thus, for the intertemporal budget constraint to be met, any public revenue received in future must also cover the additional costs of demographic ageing.

The sharp rise in general government debt after the financial crisis (Chart 1) and the accelerating growth of age-related expenditure are putting increasing pressure on the sustainability of Finland's public finances (see the feature article Assessment of public finances 2019). In recent years, however, the historically low level of interest rates has eased these pressures, as the average interest rate paid on public debt has been low relative to GDP growth at current prices. This has significantly slowed the increase in the debt-to-GDP ratio.

Age-related expenditure comprises spending on pensions,[2] health care, long-term care and education. The sustainability calculation also takes into account the projected evolution of unemployment expenditure, even though as a rule these costs are not age-related.

Chart 1.



Sustainability gap indicates size of required adjustment

The sustainability gap refers to the fiscal adjustment required for the fulfilment of the intertemporal budget constraint. A government may strive to reduce the sustainability gap by e.g. introducing structural reforms that curb growth in age-related expenditure.

1. The primary balance refers to the difference between general government revenue and expenditure net of interest payments.
2. The principal pension scheme in Finland is the statutory and compulsory earnings-related pension scheme. It is complemented by pensions paid by the Finnish Social Insurance Institution Kela, pensions granted on the basis of the Military Injuries Act, the Motor Insurance Act and the Workers' Compensation Insurance Act, and voluntary pensions taken out by employers or employees themselves.

The standard measure of long-term fiscal sustainability is the S2 indicator, which indicates the size of the sustainability gap. It determines the immediate and permanent adjustment that would ensure that the intertemporal budget constraint, calculated over an infinite time horizon, is met and the general government debt-to-GDP ratio will stabilise over the long term.

It must be noted that the sustainability gap estimate captured by the S2 indicator is not a forecast of the most probable future scenario, nor is it an actual policy recommendation for a one-off adjustment. Rather, it is a 'pressure projection' that assesses the scale of fiscal challenges and gauges the implications of unchanged policies for long-term fiscal sustainability. It illustrates the outcome of current legislation – in the light of long-term economic growth forecasts and population projections – if current policies remain unchanged. The sustainability calculation is sensitive to the underlying assumptions, and sensitivity tests and alternative scenarios are therefore necessary.

It should also be noted that the adjustment implied by the S2 indicator may lead to the general government debt-to-GDP ratio stabilising at a very high level in the long term, should the debt level be high initially, in the base year of the calculation. The related risk may be assessed by comparing the initial debt-to-GDP ratio with the reference value of 60% relative to GDP and considering the other requirements of the EU's Stability and Growth Pact on fiscal developments.

The three components of the sustainability gap estimate

The S2 indicator consists of three components: i) the initial (or base year) structural primary balance; ii) the impact of the initial debt ratio and iii) the impact of age-related expenditure growth and general government property income on future primary balances. In the Bank of Finland's sustainability gap calculations, the base year is 2025. Hence, the sustainability gap indicator determines the adjustment required in 2025 for stabilising the general government debt-to-GDP ratio.

The sustainability gap calculation is based on the assumption that the primary budget position implied by the medium-term forecast is at its structural level in 2025, i.e. GDP is assumed to be at its potential level at that time. It is assumed that there are no one-off or temporary revenue or expenditure factors. A positive (negative) initial primary balance reduces (increases) the size of the sustainability gap.

The higher the initial debt ratio (the second component), the larger the sustainability gap. If deficit and debt are high in the base year, this alone may put the future debt ratio on an explosive growth path. The imbalance stemming from the initial position may be corrected by fiscal consolidation measures, which would improve the primary balance of the base year, 2025.

The impact of the third component – age-related expenditure and general government property income – on future primary balances is based on the projection for age-related spending and assumptions on the nominal return on financial assets. Growth in age-related expenditure will increase the sustainability gap, while an increase in property

income will have an impact in the opposite direction. Age-related expenditure has a significantly larger weight in the component than property income. Finally, the sustainability gap calculation takes into account macroeconomic projections and the assumed path of the average interest rate on public debt.[3]

The sustainability gap calculation is subject to an infinite time horizon. In practice, however, changes in revenue and expenditure are examined over the period up to 2070, after which their respective ratios to GDP are assumed to remain unchanged. Otherwise, the basic assumption is that fiscal policy will remain unchanged in the long term, and hence the GDP ratios of many public revenue and expenditure items will remain at their initial levels.

Age-related expenditure will increase

The projected growth in age-related expenditure plays a key role in the sustainability gap calculation. For the calculation, the Bank of Finland runs a projection for age-related expenditure spanning up to 2070 (Table 1). The projection is based on demographic change according to Statistics Finland's population projection and data available on age group-specific unit costs of healthcare, long-term care and education. These costs are assumed to remain constant. In addition to demographic reasons, demand for age-related public services is assumed to increase along with a rising standard of living so that, excluding demographic change, the share of these services in GDP terms is roughly unchanged.

Table 1.

Bank of Finland's projection for ratio of age-related expenditure to GDP, %

	2020	2030	2040	2050	2060	2070
Pensions	13.4	13.9	13.0	12.9	13.8	14.9
Health care	6.4	6.9	7.1	7.3	7.8	8.4
Long-term care	2.3	3.0	3.8	4.2	4.6	5.4
Education	5.4	5.1	4.6	4.4	4.4	4.3
Enemployment	1.7	1.9	1.9	1.9	1.9	1.9
Total age-related expenditure	29.4	30.8	30.4	30.8	32.6	35.0
Age-related expenditure excl. pensions	16.0	16.9	17.4	17.9	18.7	20.0

3. The assumption on the interest rate on public debt is the same as used in the calculations of the Ageing Working Group of the European Commission (2018). The assumption on the long-term return on assets held by earnings-related pension funds is roughly in line with the assumptions of the Finnish Centre for Pensions (ETK).

Pensions are by far the largest component of age-related expenditure. Growth in pensions paid has been very rapid in recent years, which has weakened the structural balance of the general government finances. After a phase of stabilisation, pension expenditure growth is projected to accelerate again from 2050 onwards so that, as a whole, pension expenditure relative to GDP increases by 1.5 percentage points from 2020 to 2070. The projection for the number of pension recipients is roughly in line with the long-term calculations of the Finnish Centre for Pensions (ETK).

Besides newborns, the largest unit costs of health care are associated with persons aged over 65. Hence, as older age cohorts are getting larger in size, total costs will grow in the forthcoming years. The need for long-term care for the elderly will also increase in response to population ageing. In the next 10 years, the baby-boomers will surpass the threshold of 75 years, and in the early 2030s the number of persons aged over 85 will begin to grow more rapidly. Healthcare and long-term care expenditure relative to GDP is projected to increase by 5 percentage points by 2070.

The outlook for education expenditure deviates from the projected path of healthcare and long-term care expenditure because the fertility rate has long been declining in Finland and the young age cohorts are increasingly smaller in size. Education expenditure will decrease, as it is assumed to decline in the same proportion as the age cohorts shrink. This limits the growth of the sustainability gap.

Age-related expenditure (excl. unemployment expenditure) is projected to grow by 5.4 percentage points relative to GDP by 2070. Excluding pension spending, expenditure growth will be slightly below 4 percentage points. Unemployment expenditure relative to GDP is projected to remain almost unchanged from 2030.

Earnings-related pension scheme and the sustainability gap calculation

In addition to the population projection, the costs due to population ageing depend on the characteristics of the pension and social security systems and the organisation of social welfare and healthcare services. The Finnish earnings-related pension system is unique in that it falls under social security and is administered by earnings-related pension institutions, and that some of these institutions are private but are nevertheless classified as general government entities.

The surplus on the earnings-related pension institutions improves key fiscal figures. However, it cannot be used to manage central and local government debt. For this reason, the Bank of Finland's sustainability gap calculation separates the earnings-related pension scheme as an independent and internally sustainable element, the budgetary balance on which is not taken into account as such in the initial primary balance or the future primary balances of the S2 indicator.

The value of assets held by the earnings-related pension funds, as a share proportion of GDP, is assumed to be roughly constant throughout the sustainability gap calculation, i.e. their relative value at the end of the projected portion of the calculation, in 2070, is the same as at the beginning of the calculation. Thus, the size of the funds is not permanently

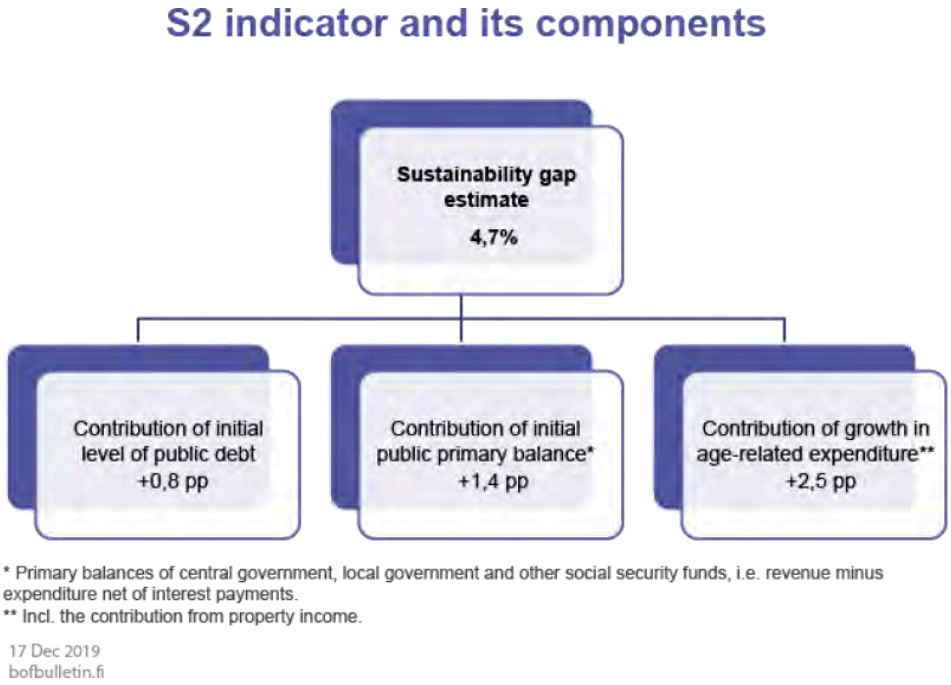
increased or decreased in the calculation. Pension contributions are instead allowed to adjust so that the condition on the size of the funds is satisfied. At the same time, the total tax ratio, which includes earnings-related pension contributions, is kept roughly unchanged at the base-year level. Thus, taxation is allowed to respond to changes in pension contributions with a negative coefficient, to keep the total tax ratio constant.

According to the European Commission, the main challenges to the long-term sustainability of Finland's public finances relate particularly to growth in expenditure on healthcare and long-term care. The Commission's calculations indicate that the contribution of pensions to Finland's long-term sustainability gap is small (European Commission 2019).

Bank of Finland's sustainability gap estimate at 4.7%

The Bank of Finland estimates that the sustainability gap in Finland's general government finances is 4.7% relative to the level of GDP projected for 2025 (Chart 2). The contribution of age-related expenditure to future primary balances is by far the most significant component affecting the sustainability gap. The initial debt level, in turn, provides currently the smallest contribution to the sustainability gap estimate.

Chart 2.



The Bank of Finland's previous estimate for the S2 sustainability gap, published in December 2018, was about 3%. The current higher estimate compared with the previous year is due particularly to the weaker cyclical situation in the immediate years ahead and measures taken by the Government. Together, these factors increase the initial primary balance deficit – i.e. the deficit estimated for the base year 2025 – by about 1.5 percentage points relative to the previous assessment. The weaker cyclical conditions

cover slightly less than half of this increase.

The extension of the projection horizon to 2070 from 2065 has increased the sustainability gap estimate by about 0.3 of a percentage point. At the same time, changes in Statistics Finland's new population projection relative to the projection of 2018 and updated projections for labour market variables have reduced the sustainability gap estimate by about –0.2 of a percentage point. The lower level of interest rates in the early part of the projection horizon restricts the impact of the higher initial debt ratio. At the same time, however, the assumption of lower interest rates raises the present value of age-related expenditure and thus also increases the estimated sustainability gap.

According to the European Commission's interpretation, the risk to the long-term sustainability of the public finances is high if the S2 indicator exceeds the value 6. If the S2 value is below 2, the risk is low. The Commission's justification for the scale is that there have been many occasions in Europe when a country has been able to permanently strengthen the general government primary balance by 2% relative to GDP, while examples of a permanent improvement of 6% have been very rare (European Commission 2016). In the Commission's scale, the Bank of Finland's sustainability gap estimate is close to the threshold between medium and high risk.

Conclusions about the size of the sustainability gap

If public expenditure is higher than revenue over the long term, public debt will inevitably begin to grow in an uncontrollable manner. If a country cannot permanently attain and maintain a sufficiently high primary balance, public debt may reach an unsustainable level – even without the cost pressures from demographic ageing.

Keeping general government debt in check and maintaining the ability to issue debt when needed are essential for the public finances and the smooth functioning of the economy as a whole. Heavily indebted public finances are vulnerable to cyclical swings pointing to weak economic developments and interest rate shocks. Fiscal sustainability ensures that general government finances are adequately prepared for these circumstances that are beyond the control of the government.

Fiscal sustainability also involves issues relating to intergenerational fairness. Public borrowing can be regarded as postponement of the collection of taxes and other similar charges into the future even though debt financing can also be used for public investments that increase future growth potential.

In a situation in which the projected growth of age-related expenditure generates a large sustainability gap, it is imperative to address the situation by implementing structural reforms. The Finnish pension reform of 2015 is an example of reform measures for easing the fiscal pressures from age-related expenditure. The overhaul of the social welfare and health care services system and the social security reform, both still under preparation, are key to containing growth in healthcare and long-term care expenditure.

The European Commission considers that the sustainability of the public finances is tightly linked to the observance of the EU's Stability and Growth Pact. Based on a calculation published in January 2019 (European Commission 2019), Finland's general

government debt-to-GDP ratio would decline by 10 percentage points by 2029 if Finland were to comply with the requirements of the preventive arm of the Pact. The weaker cyclical situation compared with the previous year should be taken into account, but the calculation nevertheless means that Finland is committed to a set of rules, adherence to which would ensure that Finland's public debt will be maintained on a sustainable level.

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Tags

sustainability gap, population ageing, long-term projection, general government finances

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Forecast tables for 2019–2022 (December 2019)

17 DEC 2019 10:00 AM • BANK OF FINLAND BULLETIN 5/2019 • ECONOMIC OUTLOOK

See forecast tables for the Finnish economy in 2019–2022 (Dec 2019).

December 2019

1. BALANCE OF SUPPLY AND DEMAND, AT REFERENCE YEAR 2010 PRICES

% change on previous year

	2018	*2019^{f}*	*2020^{f}*	*2021^{f}*	*2022^{f}*
GDP at market prices	1.7	1.3	0.9	1.1	1.3
Imports of goods and services	5.0	0.7	1.3	1.8	2.5
Exports of goods and services	2.2	4.0	0.9	2.2	2.6
Private consumption	1.8	0.7	1.3	1.2	1.2
Public consumption	1.5	1.6	1.3	0.5	0.8
Private fixed investment	2.8	1.1	–0.3	0.8	2.1
Public fixed investment	5.3	1.5	5.1	–0.2	1.9

Sources: Bank of Finland and Statistics Finland.

2. CONTRIBUTIONS TO GROWTH[1]

	2018	*2019f*	*2020f*	*2021f*	*2022f*
GDP, % change	1.7	1.3	0.9	1.1	1.3
Net exports	–1.0	1.3	–0.2	0.2	0.0
Domestic demand excl. inventory change	2.1	1.0	1.1	0.9	1.3
of which Consumption	1.4	0.7	1.0	0.7	0.8
Investment	0.8	0.3	0.2	0.1	0.5
Inventory change + statistical discrepancy	0.6	–1.0	0.0	0.0	0.0

[1] Bank of Finland calculations. Annual growth rates using the previous year's GDP shares at current prices as weights.

Sources: Bank of Finland and Statistics Finland.

3. BALANCE OF SUPPLY AND DEMAND. PRICE DEFLATORS

Index 2010 = 100. and % change on previous year

	2018	*2019[f]*	*2020[f]*	*2021[f]*	*2022[f]*
GDP at market prices	115.4	117.6	119.9	121.8	124.2
	2.1	1.9	1.9	1.6	1.9
Imports of goods and services	105.4	108.1	108.3	109.6	111.4
	3.4	2.6	0.2	1.2	1.6
Exports of goods and services	106.9	106.9	107.0	108.5	110.5
	4.0	0.0	0.1	1.4	1.9
Private consumption	112.7	114.1	115.4	116.9	118.8
	1.1	1.2	1.2	1.3	1.6
Public consumption	112.8	115.5	118.6	121.2	124.6
	1.6	2.4	2.7	2.2	2.9
Private fixed investment	116.4	119.2	120.8	122.6	124.5
	2.4	2.4	1.3	1.4	1.6
Public fixed investment	114.8	117.1	121.4	123.8	125.3
	1.7	2.0	3.6	1.9	1.3
Terms of trade (goods and services)	101.4	98.9	98.8	99.0	99.2
	0.5	–2.5	–0.1	0.2	0.2

Sources: Bank of Finland and Statistics Finland.

4. BALANCE OF SUPPLY AND DEMAND, AT CURRENT PRICES

EUR million and % change on previous year

	2018f	*2019f*	*2020f*	*2021f*	*2022f*
GDP at market prices	234 453	242 161	249 078	255 742	264 195
	3.8	3.3	2.9	2.7	3.3
Imports of goods and services	92 124	95 117	96 582	99 453	103 604
	8.6	3.2	1.5	3.0	4.2
Total supply	326 577	337 279	345 660	355 195	367 799
	5.1	3.3	2.5	2.8	3.5
Exports of goods and services	90 408	94 058	94 930	98 385	102 859
	6.3	4.0	0.9	3.6	4.5
Consumption	176 835	181 353	186 704	191 514	197 436
	3.0	2.6	3.0	2.6	3.1
Private	123 702	126 077	129 226	132 484	136 227
	3.0	1.9	2.5	2.5	2.8
Public	53 133	55 276	57 478	59 030	61 209
	3.2	4.0	4.0	2.7	3.7
Fixed investment	55 456	57 402	58 829	60 062	62 225
	5.7	3.5	2.5	2.1	3.6
Private	45 584	47 178	47 688	48 732	50 539
	5.3	3.5	1.1	2.2	3.7
Public	9 872	10 224	11 141	11 329	11 686
	7.1	3.6	9.0	1.7	3.1
Inventory change + statistical discrepancy	3 878	4 466	5 197	5 235	5 278
% of previous year's total demand	0.8	0.2	0.2	0.0	0.0

4. BALANCE OF SUPPLY AND DEMAND, AT CURRENT PRICES

Total demand	326 577	337 279	345 660	355 195	367 799
	5.1	3.3	2.5	2.8	3.5
Total domestic demand	236 169	243 221	250 730	256 810	264 940
	4.7	3.0	3.1	2.4	3.2

Sources: Bank of Finland and Statistics Finland.

5. BALANCE OF SUPPLY AND DEMAND

% in proportion to GDP at current prices

	2018	*2019^{f}*	*2020^{f}*	*2021^{f}*	*2022^{f}*
GDP at market prices	100.0	100.0	100.0	100.0	100.0
Imports of goods and services	39.3	39.3	38.8	38.9	39.2
Exports of goods and services	38.6	38.8	38.1	38.5	38.9
Consumption	75.4	74.9	75.0	74.9	74.7
Private	52.8	52.1	51.9	51.8	51.6
Public	22.7	22.8	23.1	23.1	23.2
Fixed investment	23.7	23.7	23.6	23.5	23.6
Private	19.4	19.5	19.1	19.1	19.1
Public	4.2	4.2	4.5	4.4	4.4
Inventory change + statistical discrepancy	1.7	1.8	2.1	2.0	2.0
Total demand	139.3	139.3	138.8	138.9	139.2
Total domestic demand	100.7	100.4	100.7	100.4	200.3

Sources: Bank of Finland and Statistics Finland.

6. PRICES

Index 2010 = 100, and % change on previous year

	2018	*2019f*	*2020f*	*2021f*	*2022f*
Harmonised index of consumer prices, 2015 = 100	102.4	103.6	104.8	106.3	108.0
	1.2	1.2	1.2	1.4	1.6
Consumer price index, 2015 = 100	102.2	103.3	104.6	106.0	107.6
	1.1	1.1	1.2	1.3	1.6
Private consumption deflator	112.7	114.1	115.4	116.9	118.8
	1.1	1.2	1.2	1.3	1.6
Private investment deflator	116.4	119.2	120.8	122.6	124.5
	2.4	2.4	1.3	1.4	1.6
Exports of goods and services deflator	106.9	106.9	107.0	108.5	110.5
	4.0	0.0	0.1	1.4	1.9
Imports of goods and services deflator	105.4	108.1	108.3	109.6	111.4
	3.4	2.6	0.2	1.2	1.6
Value-added deflators					
Value-added, gross at basic prices	115.2	117.5	119.9	121.8	124.1
	2.1	2.0	2.0	1.7	1.9
Private sector	115.6	117.7	119.9	121.8	123.8
	2.1	1.9	1.8	1.5	1.7
Public sector	114.7	117.9	121.0	123.7	127.2
	2.1	2.8	2.7	2.2	2.9

Sources: Bank of Finland and Statistics Finland.

7. WAGES AND PRODUCTIVITY

% change on previous year

	2018	*2019f*	*2020f*	*2021f*	*2022f*
Whole economy					
Index of wage and salary earnings	1.7	2.5	2.5	2.2	2.5
Compensation per employee	0.8	1.8	2.5	2.2	2.4
Unit labour costs	1.8	1.4	1.5	1.4	1.5
Labour productivity per employed person	–1.0	0.3	1.0	0.8	0.9

Sources: Bank of Finland and Statistics Finland.

8. LABOUR MARKET

1.000 persons and % change on previous year

	2018	*2019f*	*2020f*	*2021f*	*2022f*
Labour force survey (15–74-year-olds)					
Employed persons	2 539	2 564	2 563	2 570	2 581
	2.7	1.0	0.0	0.3	0.4
Unemployed persons	202	183	185	182	177
	–13.7	–9.2	1.0	–1.8	–2.5
Labour force	2 740	2 747	2 748	2 752	2 758
	1.2	0.3	0.0	0.1	0.2
Working-age population (15–64-year-olds)	3 439	3 427	3 420	3 413	3 409
	–0.4	–0.3	–0.2	–0.2	–0.1
Labour force participation rate, %	66.4	66.6	66.7	66.9	67.3
Unemployment rate, %	7.4	6.7	6.7	6.6	6.4
Employment rate (15–64-year-olds), %	71.7	72.5	72.7	73.0	73.4

Sources: Bank of Finland and Statistics Finland.

9. GENERAL GOVERNMENT REVENUE. EXPENDITURE. BALANCE AND DEBT

	2018	2019[f]	2020[f]	2021[f]	2022[f]
% of GDP					
General government revenue	52.3	51.7	51.7	51.6	51.4
General government expenditure	53.1	52.6	53.1	53.1	52.9
General government primary expenditure	52.2	51.9	52.5	52.5	52.4
General government interest expenditure	0.9	0.7	0.6	0.6	0.5
General government net lending	–0.8	–1.0	–1.5	–1.5	–1.5
Central government net lending	–1.2	–0.8	–1.3	–1.2	–1.0
Local government net lending	–0.9	–1.2	–1.1	–1.1	–1.2
Social security funds	1.3	1.1	0.9	0.8	0.8
General government primary balance	0.1	–0.2	–0.9	–0.9	–1.0
General government structural balance[1]	–0.8	–1.2	–1.5	–1.4	–1.4
General government debt (consolidated. EDP)	59.0	58.8	59.1	60.1	60.8
Central government debt	44.8	43.8	43.4	43.8	43.7
Tax ratio	42.3	42.0	42.1	42.0	41.9
Current prices, EUR billion					
General government net lending	–1.9	–2.3	–3.7	–3.8	–3.9
Central government net lending	–2.8	–1.9	–3.3	–3.1	–2.8
Local government net lending	–2.1	–3.0	–2.7	–2.9	–3.2
Social security funds	2.9	2.6	2.3	2.2	2.0
General government debt (consolidated. EDP)	138.4	142.5	147.3	153.8	160.5

[1]Calculated by the Bank of Finland under the ESCB methodology for estimating the output gap.

Sources: Bank of Finland and Statistics Finland.

10. BALANCE OF PAYMENTS

EUR billion

	2018	*2019f*	*2020f*	*2021f*	*2022f*
Exports of goods and services (SNA)	90.4	94.1	94.9	98.4	102.9
Imports of goods and services (SNA)	92.1	95.1	96.6	99.5	103.6
Goods and services account (SNA)	–1.7	–1.1	–1.7	–1.1	–0.7
% to GDP	–0.7	–0.4	–0.7	–0.4	–0.3
Investment income and other items, net (+ statistical discrepancy)	0.9	0.5	1.0	1.0	1.0
Current transfers, net	–2.4	–2.5	–2.6	–2.7	–2.8
Current account, net	–3.2	–31.3	–3.2	–2.7	–2.5
Net lending, % to GDP					
Private sector	–0.5	–0.3	0.2	0.4	0.5
Public sector	–0.8	–1.0	–1.5	–1.5	–1.5
Current account, % to GDP	–1.4	–1.3	–1.3	–1.1	–0.9

Sources: Bank of Finland and Statistics Finland.

11. INTEREST RATES

%

	2018	*2019[f]*	*2020[f]*	*2021[f]*	*2022[f]*
3-month Euribor[1]	–0.3	–0.4	–0.4	–0.4	–0.3
Average interest rate on new loan drawdowns[2]	1.8	1.8	1.8	1.8	1.9
Average interest rate on the stock of loans[2]	1.3	1.3	1.3	1.3	1.4
Average interest rate on the stock of deposits[3]	0.1	0.1	0.1	0.1	0.1
Yield on Finnish 10-year government bonds[1]	0.7	0.1	0.0	0.1	0.3

[1] Tehnical assumption derived from market expectations.

[2] Finnish credit institutions' loans to households and non-financial corporations (excl. overdrafts. credit card credits and repurchase agreements).

[3] Finnish credit institutions' deposits from households and non-financial corporations.

Source: Bank of Finland.

12. INTERNATIONAL ENVIRONMENT

The Eurosystem staff projections

	2018	*2019f*	*2020f*	*2021f*	*2022f*
GDP, % change on previous year					
World	3.6	2.7	2.9	3.1	3.1
USA	2.9	2.3	2.0	1.8	1.7
Euro area	1.9	1.2	1.1	1.4	1.4
Japan	0.8	0.9	0.2	0.6	0.5
Imports, % change on previous year					
World	4.2	0.6	1.4	2.6	2.9
USA	4.4	1.6	0.8	1.6	1.8
Euro area	2.7	3.1	2.5	2.8	2.8
Japan	3.3	–0.5	0.9	1.8	1.3
Index, 2010 = 100, and % change on previous year					
Import volume in Finnish export markets	112.9	114.6	116.6	119.5	122.7
	3.6	1.6	1.7	2.5	2.7
Export prices of Finland's competitors (excl. oil), in national currencies	106.3	108.2	110.1	112.6	115.1
	5.2	1.7	1.8	2.2	2.2
Export prices of Finland's industrial competitors (excl. oil), in euro	99.6	101.7	104.0	106.3	108.7
	1.4	2.2	2.2	2.2	2.2
Industrial raw materials (excl. energy), HWWA index, in US dollars	124.8	125.0	126.7	129.8	132.7
	5.6	0.2	1.4	2.4	2.3
Oil price, USD per barrel[1]	108.1	97.1	90.6	87.4	86.4
	30.6	–10.2	–6.6	–3.6	–1.1

12. INTERNATIONAL ENVIRONMENT

Finland's nominal competitiveness indicator[2]	107.5	107.1	106.6	106.6	106.6
	3.8	–0.4	–0.4	0.0	0.0
US dollar value of one euro[1]	1.18	1.12	1.10	1.10	1.10
	4.5	–5.2	–1.3	0.0	0.0

[1] Technical assumption derived from market expectations.

[2] Narrow, supplemented with euro area countries, January–March 1999 = 100.

Sources: Bank of Finland and European Central Bank.

13. CURRENT AND JUNE 2019 FORECAST

	2019^{f}	*2020^{f}*	*2021^{f}*	*2022^{f}*
GDP, % change	1.3	0.9	1.1	1.3
June 2019	1.6	1.5	1.3	
Inflation (HICP), %	1.2	1.2	1.4	1.6
June 2019	1.3	1.4	1.6	
Current account, % to GDP	–1.3	–1.3	–1.1	–0.9
June 2019	–0.7	–0.7	–0.6	
General government net lending, % to GDP	–1.0	–1.5	–1.5	–1.5
June 2019	–0.5	–0.2	–0.3	
General government debt (EDP), % to GDP	58.8	59.1	60.1	60.8
June 2019	58.5	57.9	57.2	
Unemployment rate, %	6.7	6.7	6.6	6.4
June 2019	6.5	6.4	6.3	
Employment rate, 15–64-year-olds, %	72.5	72.7	73.0	73.4
June 2019	72.5	72.9	73.3	

Source: Bank of Finland.

Tags

economic situation, forecast, indicators