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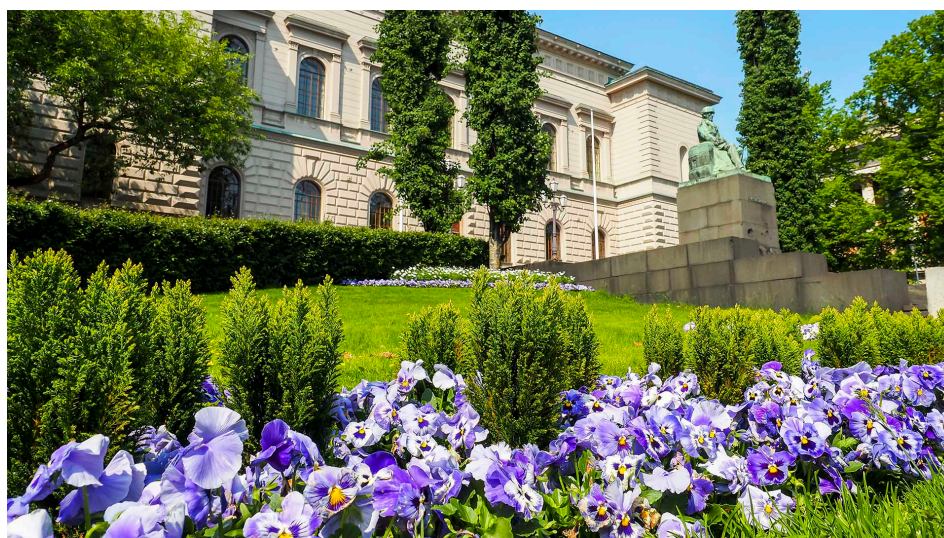
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EDITORIAL

Public finances need more room for manoeuvre

19 JUN 2019 1:00 PM • BANK OF FINLAND BULLETIN 3/2019 • EDITORIAL

Finland's new parliamentary session begins with the country enjoying a brighter economic outlook than four years ago. Yet the past year has also seen the outlook deteriorate. Momentum in the global economy has slowed. World trade growth, as well as growth in the manufacturing output of the advanced economies, has been at a near standstill since late 2018, and the outlook remains clouded by risks related to trade policy, among other things.



Finland's economic growth has continued, but at a slower pace. In the immediate years ahead, growth is anticipated to continue at, or slightly below, the economy's long-term potential. This would be markedly slower than in recent years.

Finland's public finances are in better health than they were a few years ago. The deficit has shrunk, and the debt-to-GDP ratio has declined. Cyclical developments have contributed to this, but so have the fiscal consolidation measures agreed upon in the two previous parliamentary sessions. Nevertheless, the general government balance has remained in deficit.

In the coming years, the public finances will be strained by growing pension expenditure, and by the demands placed on health- and long-term care services by an ageing population. The long-term sustainability gap in the public finances is considerable. The Bank of Finland's December 2018 estimate puts the sustainability gap at about 3%

relative to GDP. This is the amount of additional revenue needed for general government finances to break even, given the current outlook.

It is important that proactive measures are taken to strengthen the public finances when the economy is not in recession. The current situation might be compared with the period following the 1990s recession. At the time, the GDP ratio of general government debt was brought down by over 20 percentage points, after persistent efforts spanning several years. In 2008, the debt-to-GDP ratio stood at a mere 33%.

When the shock waves of the global financial crisis hit Finland in the latter half of 2008, the general government finances were able to strongly support domestic demand. The low level of public debt allowed for much-needed room for fiscal manoeuvre. Lenders' confidence in Finland's ability to service its swiftly growing debt burden was not significantly compromised. One might ask whether such support for domestic demand would have been possible if it had not been preceded by determined efforts to lower the debt ratio.

When the global economy again falls into recession, Finland may well find itself in a similar situation. The smaller the public debt burden is at the time, the more room there will be for fiscal manoeuvre.

In general, it makes sense to have a broad view of the economic situation in all decisions that materially involve government income and expenditure. For example, if fiscal policy is relaxed at a time when the economy is not in recession, gains in output and employment growth may prove marginal. On the other hand, the costs of public expenditure items may go up as prices rise.

Finland's employment situation has improved swiftly, especially since 2017. The employment rate has climbed to over 72%. While favourable cyclical developments have had a hand in this outcome, so have government measures and improvements in Finland's cost-competitiveness.

Looking at the first half of the current year, however, employment growth seems to have been unable to keep pace with previous years. The Bank of Finland's new forecast anticipates continued employment growth in the immediate years ahead, but at a slower pace. This forecast does not take into account the economic policy measures outlined for the new parliamentary session.

Finland's employment rate should be raised to a good Nordic standard. In Sweden, Norway and Denmark employment stands at about 75–78%.

Employment growth plays a key role in shaping the fiscal balance. The costs of maintaining a large welfare state may prove insurmountable if not backed by a high rate of employment that can be sustained over the long term. Because of the magnitude of the sustainability gap, it is unlikely that it will be bridged by simply raising the employment rate. Nevertheless, boosting employment is likely to be a necessary condition.

The impact of a higher employment rate on the fiscal balance is not entirely straightforward. Not all jobs contribute to the fiscal balance in equal measure. Positive

effects may prove marginal if a job is created through copious public spending. This manner of job creation has a time and a place, but it is inefficient for strengthening the public finances.

The employment situation is unlikely to be remedied by any single measure, instead requiring a battery of reforms. In light of research data, meaningful results can be achieved by pursuing reforms in family-related leave, unemployment benefits and other forms of social protection. Success in developing the education system and active labour market policies are also needed. In addition to labour market institutions, employment is also affected by the housing market's ability to supply homes in the areas where they are in high demand.

The lion's share of collective labour market agreements currently in place are due for renegotiation in 2019 and 2020. The upcoming round of agreements will also play an important part in creating conditions conducive to employment. Finnish cost-competitiveness has recovered in recent years, owing to the Competitiveness Pact and moderate wage settlements. A further slight improvement is still needed, however, as competitiveness had been eroded so much in previous years.

In future, parties to collective bargaining should take into account that an agreement negotiated in one industry will affect the production costs of another. When Finland's cost-competitiveness initially began to decline, of particular significance were the collective agreements negotiated just over a decade ago. At the time, conditions of employment were agreed on for the two years ahead – regrettably just before the onset of the global financial crisis. Wages rose in the export industries, but their operating costs were also inflated by wage rises in other sectors.

Finland's export industries source a variety of their production inputs from other domestic industries such as wholesale, transportation, storage, professional services, information technology and marketing. Wage developments in domestic industries have an immediate impact on the prices of their goods and services. This can have a large impact on export industries.

To get a picture of the magnitude of these effects, one may look at the manufacturing industry, which accounts for about three quarters of all Finnish goods and services exports. According to fresh calculations published by the Bank of Finland, a 1% wage rise outside the manufacturing industry results in roughly the same increase in costs for manufacturing as if manufacturing wages had been raised by the very same margin.

Given that the different industries under collective bargaining are this co-dependent, it is clear that coordination must be front and centre in Finnish wage formation. It makes sense that the collective agreements negotiated for the export industries should serve as a reference for cost developments, and that other domestic industries should normally refrain from exceeding them.

In the last round of negotiations, much was made of the 'Swedish model', which came to serve as inspiration for a 'Finnish model'. It is not wrong to say that the Finnish model was eventually born in practice, although perhaps not before leaving the theoretical drawing board. A solid practice, once discovered, should not be lightly discarded.

It is to be hoped that Finland's cost-competitiveness will improve mainly on the basis of strong labour productivity growth. This would lessen the need for wage restraint. In general, labour productivity growth is foundational for economic prosperity.

Finland's productivity developments remained muted for a long time after 2008. As the Finnish economy began to recover in 2016, productivity growth regained its footing as well. In 2018, however, productivity growth began to stagnate once again. This reflects a much broader long-term trend of diminishing productivity growth shared throughout many of the advanced economies.

There is no silver bullet for improving the prerequisites of increased productivity growth. In the long term, productivity is largely the fruit of innovation – of its discovery and adoption. Instrumental to innovation are education, scientific research, product development, and a business environment hospitable to investment. Productivity growth can also be supported with measures that improve the allocation of the economy's resources. Here, promotion of competition and the functioning of labour markets play a central role.

Looking to the immediate years ahead, we find the economic outlook clouded by the recent slowdown in global growth. However, the future of the Finnish economy will not be determined by this alone. Setting the course for employment and productivity growth in Finland is very much the prerogative of domestic policy-making.

Helsinki, 10 June 2019

Olli Rehn
Governor of the Bank of Finland

Tags

[employment](#), [productivity](#), [public finances](#)

Slowing growth in the shadow of global uncertainties

TODAY 1:00 PM • BANK OF FINLAND BULLETIN 3/2019 • ECONOMIC OUTLOOK

Finland's economic growth will slow in the forecast period to close to its potential rate. GDP will grow 1.6% in 2019 and 1.5% in 2020. Thereafter, the pace of growth will ease to 1.3% in 2021.



Economic growth has slowed both in the euro area and globally. Risks to the global economy remain elevated and weak foreign demand is overshadowing the growth outlook for exports. However, Finnish goods and services are positioned to compete more favourably against other countries' products. Monetary policy is still accommodative in the euro area and the low level of interest rates creates good conditions for consumer spending and corporate investment also in Finland. Therefore, Finland's overall economic environment still supports the conditions for continued growth, despite the global uncertainties

The uncertainty in the global economy is particularly reflected in slower growth of corporate investment, which has a significant impact on Finland's exports. However, the dip in export growth witnessed in 2018 will remain a temporary phenomenon. The euro area economy, which is important for Finnish exports, will continue to grow at a passable pace, and recent years' improvements in cost-competitiveness will underpin Finnish companies' export efforts. Net exports, i.e. the difference between imports and exports, will remain modest, however, since imports, too, will continue to grow. Hence, economic growth during the forecast period will rest mainly on domestic demand.

Pay rises and improving employment figures will bolster household purchasing power. In addition, households' financial room for manoeuvre will benefit from the low level of interest rates. However, the increased uncertainty seems to have made households more cautious and fed their appetite for saving. Private consumption growth will no longer exceed the growth rate of disposable household income. Nevertheless, household consumption will still support economic growth during the forecast period.

Economic growth will also be sustained by private investment, growth in which will, however, be slower. Private investment has long been bolstered by brisk activity in the housing construction sector. However, this activity is now moderating. The cyclical downturn on the housing market has already been reflected as an increase in the number of unsold new homes. The contraction in housing construction will be compensated to some extent by a continued growth in private fixed investment.

Recent years' cyclical upswing has been accompanied by an increase in constraints on economic growth. The capacity (e.g. machinery and equipment) utilisation rate has risen, and labour shortages have impeded the expansion of production in some sectors. These capacity constraints will ease in the forecast period to some extent as economic growth slows. Labour demand will decrease, easing the shortage of labour. Labour market mismatches between job vacancies and unemployed jobseekers will continue, however. In addition, population ageing will continue to constrain employment growth because there will be less and less people of working age relative to the population as a whole. Employment will continue to grow during the forecast period, but at a notably slower pace than in a few recent years. The decline in the unemployment rate will stabilise to slightly over 6% at the end of the forecast horizon.

Economic growth ultimately depends most on labour productivity, which is measured by the added value produced by an employee during one working hour. Labour productivity growth is set to be much slower than prior to the financial crisis, i.e. at less than 1% on average per annum. The lower growth figures reflect both an increasing dominance of services in the economy and the weakness of productivity growth within economic sectors. In addition, growth in private fixed investment relative to GDP will still remain close to the lowest levels recorded since the turn of the millennium, even though it will still grow at a passable rate.

Wages will rise at an average annual rate of 2.5% during the forecast years. Inflation will be 1.3% in 2019 and will pick up to 1.6% in 2021. Wage growth will gradually push up services prices and thus contribute to boosting inflation in the forecast period.

Finland's public finances have improved in recent years. Faster economic growth and higher employment have increased tax revenues, while fiscal consolidation measures have pushed down expenditure. Despite these favourable factors, public expenditure has exceeded income, and Finland will not be able to attain a balanced budget position in the forecast period. General government debt fell to just below 60% relative to GDP in 2018, and the downward trend will continue throughout the forecast period. The forecast does not take into account the fiscal policy plans of the new Government.

The forecast is based on Statistics Finland's flash estimate of GDP for the first quarter of 2019 and other data available on 22 May 2019.

Table 1.

Forecast summary				
Percentage change on the previous year				
	2018	2019 ^f	2020 ^f	2021 ^f
GDP	2.3	1.6	1.5	1.3
Private consumption	1.4	1.3	1.4	1.4
Public consumption	1.4	0.4	0.6	0.1
Fixed investment	3.2	1.8	1.6	1.9
Private fixed investment	3.3	2.2	2.0	2.0
Public fixed investment	3.0	0.3	0.1	1.5
Exports	1.5	2.8	2.1	2.8
Imports	4.2	1.9	1.8	2.6
Effect of demand components on growth				
Domestic demand	1.8	1.2	1.2	1.2
Net exports	-1.0	0.3	0.1	0.1
Changes in inventories and statistical error	1.6	0.0	0.1	0.1
Savings rate, households, %	0.1	0.2	0.2	0.1
Current account, % of GDP	-1.9	-0.7	-0.7	-0.6
Labour market				
Number of hours worked	2.6	0.7	0.4	0.4
Number of employed	2.6	0.8	0.4	0.4

Forecast summary				
Unemployment rate, %	7.4	6.5	6.4	6.3
Unit labour costs	1.8	0.7	1.8	1.4
Labour compensation per employee	1.5	1.5	2.9	2.3
Productivity	-0.3	0.7	1.1	0.9
GDP, price index	1.9	1.8	1.8	2.1
Private consumption, price index	1.3	1.2	1.3	1.6
Harmonised index of consumer prices	1.2	1.3	1.4	1.6
Excl. energy	0.9	1.1	1.4	1.6
Energy	4.6	3.7	0.8	0.5
f = forecast				

Sources: Statistics Finland and Bank of Finland.

Forecast assumptions regarding the external environment

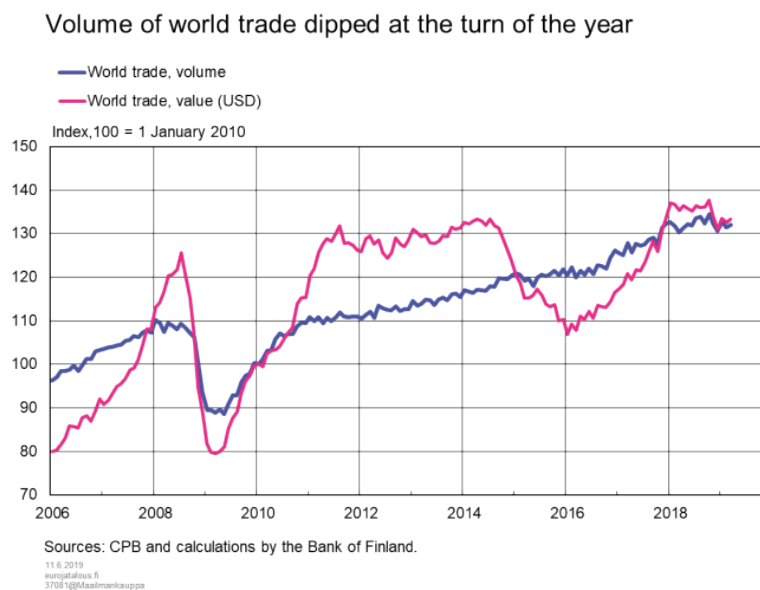
In 2018, economic growth slowed both in the euro area and around the world. Risks to the international economy remain larger than usual due to the escalation of trade disputes, and weak foreign demand overshadows the growth prospects for Finland's export sector. The competitiveness of Finnish exports has, however, strengthened and exchange rate developments support exports. Inflation in the euro area has remained moderate in early 2019. Monetary policy is still conducive to growth in the euro area and domestic financial conditions will remain relaxed. Therefore, Finland's overall economic environment still shows the preconditions for continued growth, despite the uncertainties in the global economy. The cut-off date for the forecast is 22 May 2019.

Global economic growth has slowed

The growth rate for the global economy began to slow during 2018, and growth forecasts for the immediate years ahead were revised downward during autumn 2018 and early

2019. The volume of international goods trade dipped noticeably at the turn of the year (Chart 1), and the growth rate of Finland's foreign demand has slowed markedly. Escalating problems in the Chinese economy overshadow the outlook for Finnish foreign trade, as China's slowing economic growth affects Finnish export demand both directly and indirectly, through Finland's other trading partners. China's economic issues have affected, for example, the outlook for German industry. Despite the deterioration in the international economic situation, the US economy, for example, has continued to grow at a steady pace.

Chart 1.



In autumn 2018, economic growth in the euro area slowed markedly, only to pick up again in the first quarter of 2019. This year, growth is projected to recover further. Economic growth in the euro area will continue throughout the forecast period, albeit at a slower pace than previously anticipated. During the forecast years, euro area growth will continue to be supported by favourable financing conditions, a mildly expansionary fiscal stance, further employment gains and rising wages, as well as the ongoing – albeit somewhat slower – expansion in global activity.

Imports and investment in the euro area continued to grow in 2018 and the first quarter of 2019. This growth supports Finland's foreign demand, as Finnish export goods consist largely of intermediate and capital goods, and around 30% of Finnish exports go to the euro area. As a whole, Finland's export markets will grow further during the forecast period, especially from 2020 onwards (Table 2).

From 2015 to 2018 there was a prolonged, unbroken period of appreciation in Finland's nominal effective exchange rate. This is the trade-weighted average of nominal bilateral rates between the euro and the currencies of Finland's most important trading partners. However, in the second half of 2018 and early 2019, the exchange rate has slightly weakened, supporting the competitiveness of Finnish exports. The effective exchange rate will remain stable throughout the forecast period (Table 2).

Annual consumer price inflation in the euro area edged up to over 2% during 2018, but fell back to 1.5% at the turn of the year. Euro area core inflation, i.e. consumer price inflation excluding energy and unprocessed food, continued to grow at a rather slow pace in spring 2019. However, growth in labour costs accelerated in the euro area during autumn 2018, as tightness in the labour market has increased. This would suggest an increase in services prices, in particular, and an acceleration in underlying inflation. Consumer price inflation in the euro area will pick up moderately over the forecast period.

The slowing of the inflation rate at the end of 2018 was caused mainly by a decline in the price of oil. The price of crude oil declined sharply in autumn 2018, plummeting from a peak near USD 90 to USD 50 a barrel. In spring 2019, the price of oil has gone back up to around USD 70 a barrel. The price of oil is expected to decline moderately over the forecast period, standing at around USD 63 a barrel in 2021 (Table 2). Prices of other industrial commodities will rise a little over the forecast period. For this reason, energy and commodity prices will not cause substantial short-term consumer price inflation pressures.

Monetary policy remains accommodative

The ECB has long anticipated that interest rates will remain at their present level an extended period of time, and in any case for as long as necessary to ensure the continued sustained convergence of inflation to levels that are below, but close to, 2% over the medium term. In March, the ECB also announced a new series of quarterly targeted longer-term refinancing operations (TLTRO-III) starting in September 2019 and ending in March 2021. The new series of operations will support banks' funding and help preserve the smooth transmission of monetary policy and low funding costs.

The ECB has also announced that it intends to continue reinvestment of principal payments from maturing securities acquired under the programme for an extended period of time, well past the date when the Governing Council starts raising the policy rate, and in any case for as long as necessary to maintain favourable liquidity conditions and an ample degree of monetary accommodation. All in all, monetary policy will remain accommodative for an extended period of time.

Funding costs remain low

As market expectations regarding the key ECB interest rates have moved further into the future, the financing conditions of both the private and public sector are expected to remain accommodative for the time being in Finland, too. This will support investment and consumption, thus strengthening the growth prospects of the economy (Table 2).

Households' housing-loan interest payments are lower than in the euro area on average (Chart 2). The average interest rate on new housing loans has continued to decline slightly. The total costs of housing loans have also declined as a result of narrowing interest margins, whereas the annual percentage rate of consumer credit has risen slightly in 2019.

Business financing costs, in turn, are slightly higher than in the euro area, but still

remain moderate (Chart 3). According to the Business Tendency Survey by the Confederation of Finnish Industries EK, financing conditions for Finnish businesses still remain favourable and access to finance is not constraining production. Financing issues have not increased in manufacturing or in service companies and remain modest. In the first months of the year, the share of construction companies with financial issues was unchanged from the end of last year, even though it increased from a year earlier.

Chart 2.

Households' financing conditions have remained relaxed

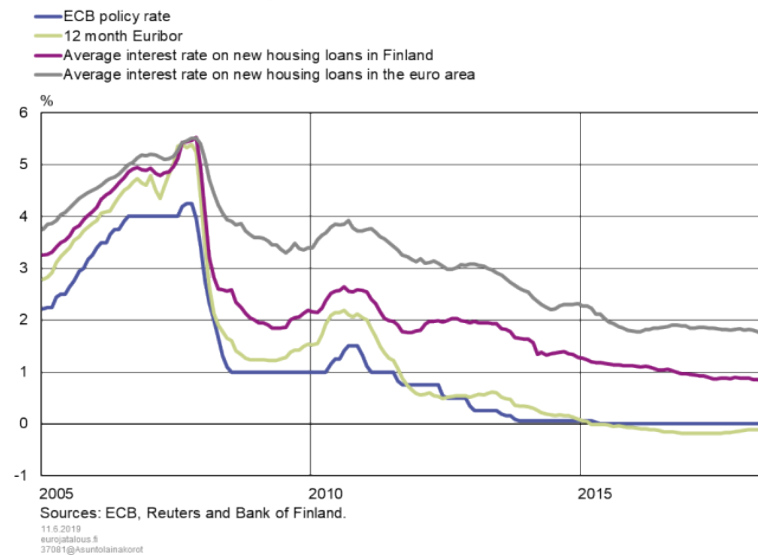


Chart 3.

Average interest rate on new corporate loans slightly higher in Finland than in rest of euro area

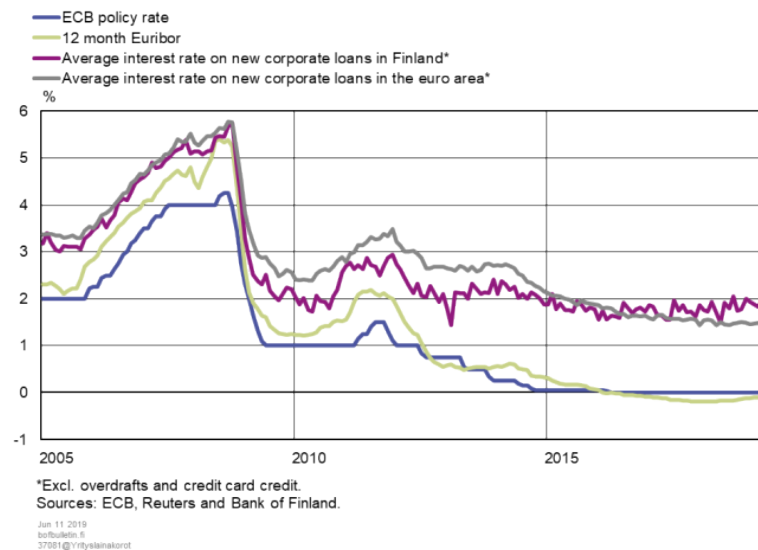


Table 2.

Key forecast assumptions

	2017	2018	2019 ^f	2020 ^f	2021 ^f
Growth in Finland's export markets ¹ , %	5.9	3.5	1.9	2.8	3.2
Oil price, USD/barrel	54.4	71.1	68.1	65.8	62.7
Export prices of Finland's competitors, euro, % change	2.9	1.4	3.5	2.6	2.4
3 month Euribor, %	-0.3	-0.3	-0.3	-0.3	-0.2
Finland's 10-year government bond yield, %	0.5	0.7	0.3	0.4	0.5
Finland's nominal competitiveness indicator ²	104.6	108.5	108.2	108.3	108.3
US dollar value of one euro	1.13	1.18	1.12	1.12	1.12

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: European System of Central Banks and Bank of Finland.

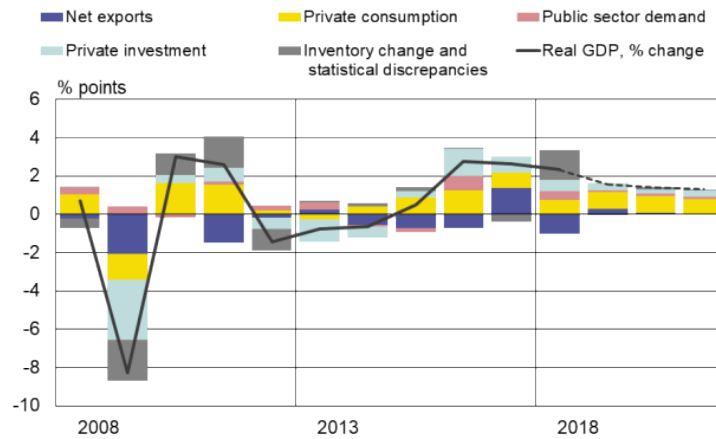
Demand

Heightened uncertainty surrounding the global economy will weigh on growth in Finland's export markets. Thus, Finland's economic growth during the forecast period will rest primarily on domestic demand (Chart 4). Growth in earnings and employment will support household income development, but the heightened uncertainty has made consumers more cautious. Towards the end of the forecast horizon, private consumption

will grow roughly in step with income, and the household savings rate will remain slightly positive throughout the forecast period. Investment will also continue to lend support to demand but its pace of growth will slow on the back of weaker residential construction activity.

Chart 4.

Economic growth rests primarily on domestic demand



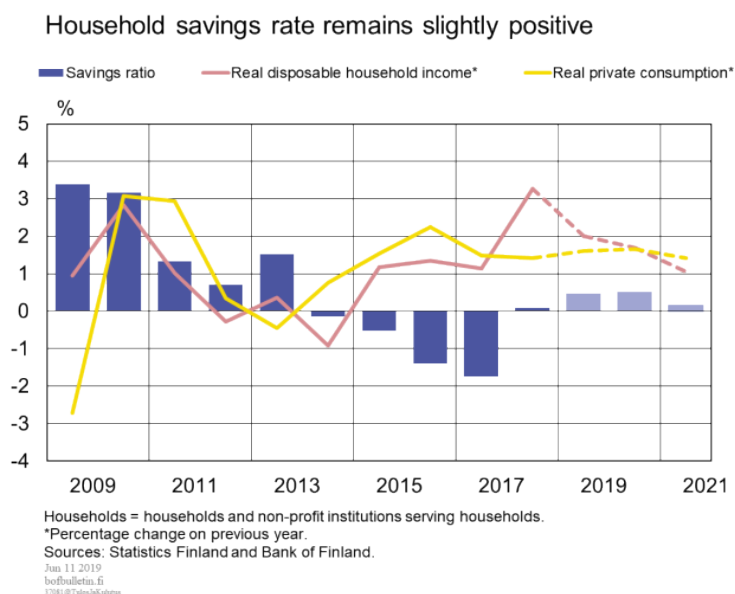
The contribution of each demand component to GDP growth has been calculated on the basis of its volume growth and its value share in the previous year. The figures for 2019–2021 are estimates. Sources: Statistics Finland and Bank of Finland.

Jun 11 2019
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Consumers increasingly cautious

Households' purchasing power will continue to grow steadily during the forecast period and consumer confidence in their own financial position has remained relatively buoyant. Private consumption growth will track growth in real disposable income, despite heightened uncertainty about the direction of the economy (Chart 5).

Chart 5.



Households' purchasing power will continue to benefit from wage increases and employment growth. Towards the end of the forecast horizon, however, purchasing power growth will abate noticeably. Earnings will rise by an average annual rate of about 2.5% in the forecast years. Other household income, which primarily consists of capital income and current transfers, will rise by almost 2% in 2019. Thereafter, income growth will pick up to about 3% in 2020 and 2021. Pension and benefits income will rise particularly after 2019, when the freezing of indexed increments comes to an end.

Taxation of earned income will be eased in 2019, but excise duties and employees' pension contributions will rise at the same time. Overall, however, the tax changes will only have a marginal effect on purchasing power in 2019. The new Government's plans related to taxation and income transfers were still unknown at the cut-off date of this publication.

Inflation will pick up slightly during the forecast period. It will still remain at around 1.3% in 2019, but in 2021 consumer prices will already rise by over 1.5%. Inflation will be fuelled by services prices, in particular, which will rise in response to wage increases. Households' real earnings will grow in the forecast period at an average annual rate of slightly over 1%.

In addition to higher earnings, disposable household income will be boosted by improved employment. In 2019, the number of persons employed will increase by about 0.8% from the previous year but, influenced by slower economic growth, the annual growth rate will abate to about 0.5% in 2020 and 2021. Considering the rise in earnings and transfers, higher employment and the inflation rate, households' purchasing power will grow by an annual rate of about 1.4% during the forecast period.

Uncertainty about the direction of overall economic developments has increased and made consumers more cautious, which has already led to slower growth in private investment. At the beginning of 2019, retail trade grew sluggishly compared with

household incomes. Car sales were also modest in early 2019, which can partly reflect uncertainty about future developments in car taxes. All in all, however, private consumption in the forecast years will grow roughly at the same pace as real disposable income, i.e. at an average annual rate of 1.4%.

Households' caution is also reflected in higher savings. The household savings rate turned slightly positive in 2018. Before that, households had run down their savings for many years. The savings rate will remain slightly positive in the forecast period, but household gross debt relative to disposable income will continue to grow at a moderate pace. Interest rates will remain low, supporting households in repaying their debts. However, average household indebtedness is not such a high risk as growth in the number of heavily-indebted households. The number of these households has risen further in recent years.

Investment growth abates from previous year

Private investment growth will moderate in the forecast period in response to a moderation in residential construction activity. Non-residential investment will continue to grow during the forecast period, albeit at a slower pace than in previous years. Private investment will increase by 2.2% in 2019, and by 2.0% in 2020 and 2021 (Chart 6). However, in an environment of strong corporate profitability, favourable financing conditions and moderate rises in labour costs, there is potential for private investment growth in the forecast period, although the uncertainties surrounding the economy may discourage corporate investment.

Chart 6.



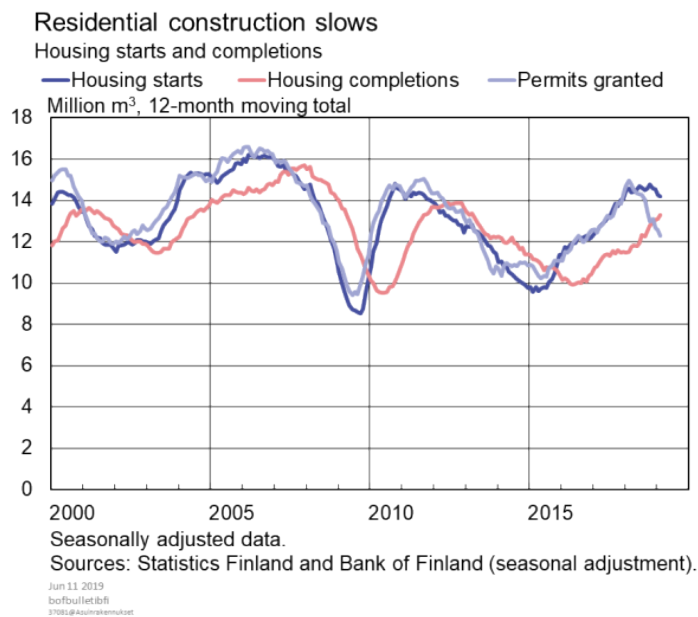
In 2018, investment growth abated already noticeably from the two previous years. Growth in non-residential investment in the corporate sector alone fell from 2.8% in 2017 to 2.1% in 2018. Total investment across the economy increased by 3.2%.

Non-residential investment will continue to grow during the forecast years but the pace

of growth will abate further. The moderation in investment partly reflects the weaker cyclical outlook and higher uncertainty, but is also explained by the completion of certain major industrial investment projects. The increasing dominance of services in the economy may also have dampened investment. A further possible factor is the decline in the price of labour input relative to the price of investment. This change in relative prices has contributed to supporting the strong growth in employment. At the same time, however, it may also explain the sluggish investment dynamics in recent years. As investment has begun to lag behind employment growth, the volume of capital per employee has decreased, i.e. the capital intensity of the economy has declined. However, the volume of capital per employee will begin to rise during the forecast period, as investment continues and employment growth moderates.

Residential construction, which has supported investment for a long time, will moderate in the forecast period (see also the article [‘What factors influence house prices and residential construction?’](#)). Residential construction growth will be dampened by the sluggishness of new-build construction. Renovation work, in turn, is still estimated to continue its steady growth. The number of building permits peaked already a year ago, since when it has declined steeply (Chart 7). Housing starts will decrease especially in 2019 and 2020. Gradually, the number of housing completions will also begin to decline. Investment into civil engineering works contracted in 2018, but infrastructure construction will be supported in 2019 by e.g. major infrastructure projects in Helsinki.

Chart 7.



Non-financial corporations’ financing conditions will remain favourable. The interest rates on new corporate loans have remained low in 2019 and, influenced by the accommodative monetary policy, the trend will continue throughout the forecast period. 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, insufficient demand has become the dominant factor preventing growth for some companies in the manufacturing and services sectors, while some companies report that the availability of

labour is their most dominant concern.

Corporate sector profitability 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 almost 6%. Even though corporate profitability has improved uninterruptedly already since 2013, relative to value added it has not reached the pre-financial crisis level.

Public finances will remain in deficit without further measures

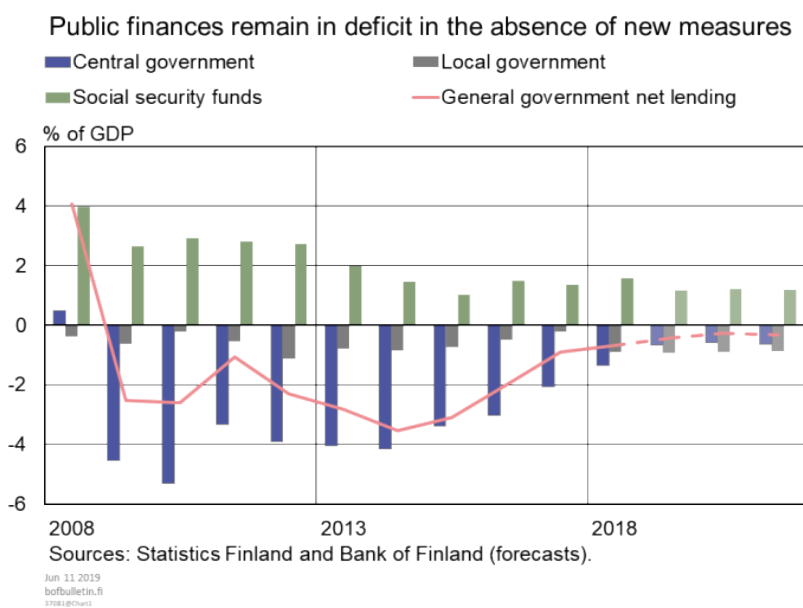
Higher economic and employment growth, lower unemployment and the previous Government's consolidation measures have strengthened Finland's public finances in recent years. Despite these favourable developments, Finland's general government will not attain a balanced budgetary position in the forecast period. Instead, the general government deficit will stabilise to -0.3% relative to GDP in 2021 (Chart 8). In the absence of further measures by the new Government, the central and local government primary balance (budget balance net of interest payments) will remain negative throughout the forecast period. Measured by the structural budget balance, however, the fiscal stance will turn countercyclical, i.e. contradictory, in 2020, after having been almost neutral in 2018–2019. The forecast does not take into account the fiscal policy plans of the new Government.^[1]

The general government debt-to-GDP ratio fell to just below 60% in 2018 for the first time since 2013. If there are no further discretionary increases in government expenditure, the debt-to-GDP ratio will decline further throughout the forecast period, to slightly over 57% in 2021.^[2] In that case, Finland will continue to fulfil the requirements for the general government deficit and debt stipulated in the EU Treaty. The public debt in millions of euros will, however, continue to grow further also in 2021. The total tax ratio will decline to around 42%, after having been 44% in 2016.

1. The forecast for the public finances for 2019–2021 is based on the no-policy-change assumption, except for the discretionary changes already known. The fiscal policy plans of the Government to be formed after the spring 2019 parliamentary elections will be taken into account in forthcoming forecasts.

2. According to the Technical General Government Fiscal Plan published by the Ministry of Finance, the Government has allocated an annual appropriation of EUR 1.5 billion for fighter aircraft procurement for 2021–2023. However, the timing of the procurement may change as the related details are finalised. The fighter aircraft procurement has not been taken into account in this forecast. It will be taken into account once there is a final decision on the matter and the procurement schedule is known. If the portion of the procurement for 2021, EUR 1.5 billion, is covered by additional debt, the debt-to-GDP ratio for 2021, i.e. 57.2%, would be 0.6 of a percentage point higher.

Chart 8.



Public final consumption expenditure will grow in 2019, fuelled by contractual pay increases and age-related expenditure. However, real growth in public consumption of final products is expected to remain moderate in 2019–2021 on the back of the previous Government’s consolidation measures and conclusion of key general government projects. Under a no-policy-change assumption, public investment will grow modestly and this, too, reflects the conclusion of the key projects.

Tax revenue will grow at an annual rate of about 3% in 2019–2021 due to higher revenues from direct and indirect taxes alike. Increases in excise duties will continue in 2019, and so will the reduction of the deductibility of mortgage interest expenditure. Vehicle taxes, in turn, will be lowered. Taxation of earned income will be eased to compensate for the effects of the Competitiveness Pact and the rise in the level of earnings.

The central government deficit will decline to –0.6% relative to GDP by 2021. Despite positive revenue developments, the central government primary balance will remain negative throughout the forecast period, since expenditure other than interest payments will be slightly higher than revenue. The local government deficit was –0.8% relative to GDP in 2018 and is expected to remain roughly unchanged until 2021. Of the social security funds, the surplus on the earnings-related pension funds will continue to trend downward in the forecast period. Other social security funds will also continue to post a slight surplus.

Exports grow, but Finland accumulates foreign debt

Finland’s foreign trade is overshadowed by increasing protectionism and the related direct and indirect effects on Finland’s main trading markets. However, the euro area economy, which is important for Finnish exports, will continue to grow at a moderate pace. Export growth will also be supported by better cost-competitiveness and

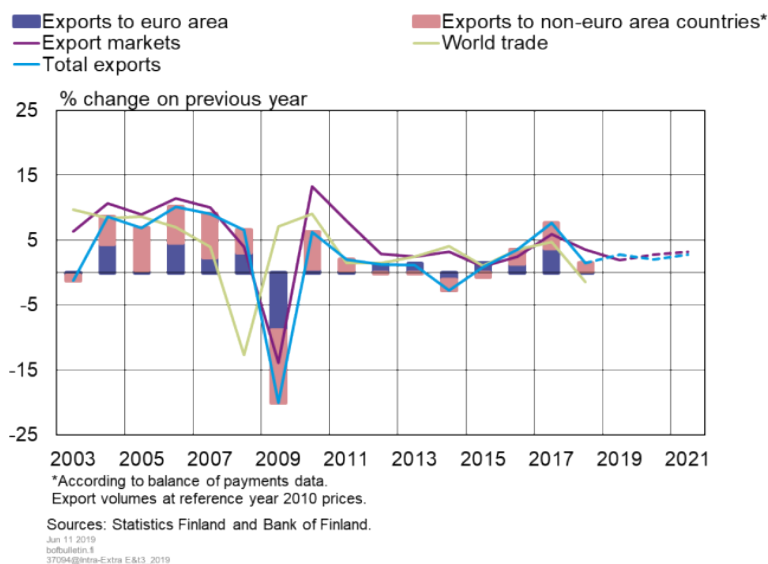
accommodative financing conditions. Nevertheless, net exports will grow sluggishly in the forecast years, since domestic consumption demand and the high share of import inputs in the export industry will boost imports.

In recent years, Finland has managed to increase market shares in exports to both the euro area and elsewhere. In 2018, however, Finland’s export growth deteriorated markedly, to 1.5%, falling notably behind growth in the export markets (Chart 9). Higher global uncertainty and slower growth in the euro area easily depress investment growth, which in turn is reflected in Finnish exports. The deterioration of Finland’s exports in 2018 was particularly due to a moderation of exports to the euro area. Net export growth abated also because of an increase in imports. Services imports in particular increased markedly. Imports were boosted by domestic consumption demand. The export industry uses a lot of imported goods and services in the manufacturing of export products, which usually also raises imports.

Trade policy uncertainty has increased and global economic sentiment has weakened. The conditions for continued favourable export developments remain in place, however, and the slowdown in Finnish exports is forecast to remain temporary. The euro area accounts for about one-third of Finland’s goods and services exports, and economic performance in the euro area will remain fair. Finnish exports to the euro area focus on goods, while services play a greater role in exports to non-euro area countries.^[3] The accommodative monetary policy in the euro area together with Finnish companies’ low funding costs and better competitiveness also create potential for growth in Finnish exports.

Chart 9.

Finnish export growth overshadowed by global economic uncertainty



Finland’s exports will be sustained by growth in its export markets. However, Finland will lose some market share in the forecast period, albeit notably less than in 2018.

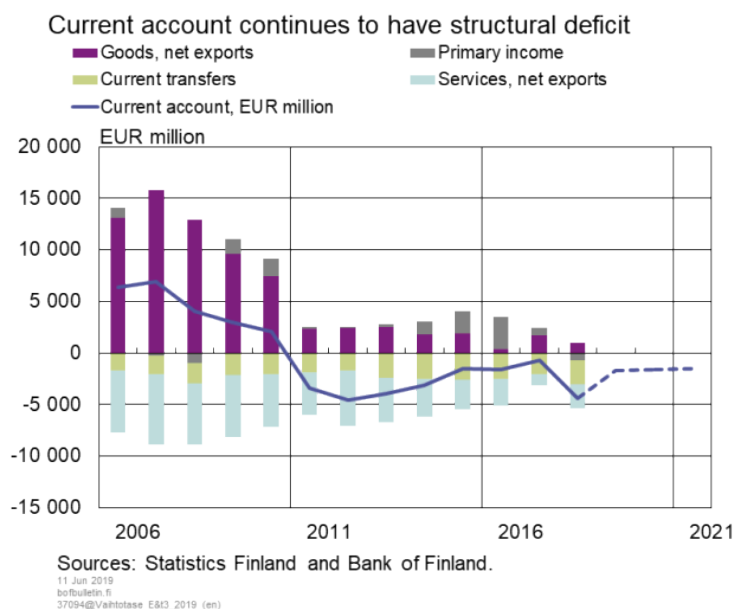
3. According to balance of payments statistics.

Finland's export growth is also affected by annual fluctuations in exports of cruise ships. In 2019, cruise ship deliveries will strengthen export growth, which will rise to 2.8% and temporarily exceed export market growth. In 2020 and 2021, exports will grow at an average rate of 2.4%.

Net exports will remain weak throughout the forecast period, as domestic demand and high import inputs in the export industry boost imports. Imports will grow at a notably slower pace than exports only in 2019, when exports will be strengthened mainly due to temporary factors.

The current account deficit deepened in 2018 to almost EUR 4.4 billion, equal to over 2% relative to GDP (Chart 10). The goods and services accounts both deteriorated markedly. In addition, primary income and current transfers paid abroad increased from the previous years and were significantly higher than the corresponding items received. Measured by the current account deficit, Finland has accumulated foreign debt since 2011, in a total amount of over EUR 23 billion.

Chart 10.



In the forecast period, the current account will remain in a deficit of slightly below 1% relative to GDP. The deficit is permanently sustained particularly by primary income and current transfers payable abroad. The modest improvement in the goods and services account will not suffice to diminish the structural deficit in the current account during the forecast period. Balancing the current account and halting foreign debt accumulation would necessitate a permanent surplus in the goods and services account and a significantly higher value of exports relative to the value of imports.

Supply

Due to the favourable cyclical conditions of recent years, the capacity utilisation rate rose and a shortage of labour became a constraint on growth in some sectors. These capacity

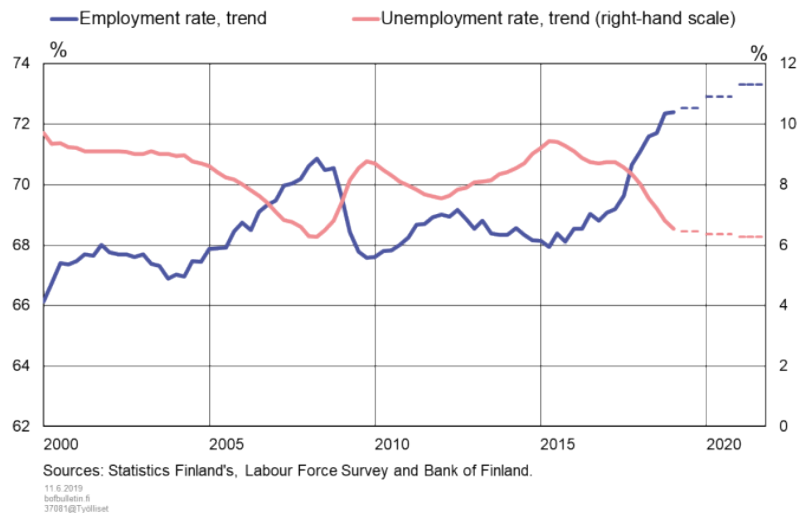
constraints will not be further tightened in the forecast years, as economic growth will slow. However, the moderation in growth and declining demand for labour notwithstanding, the availability of labour continues to act as a constraint on output growth. Towards the end of the forecast horizon, economic growth will broadly mirror the pace of potential output growth. Productivity growth will remain subdued.

Employment growth slows

The exceptionally rapid growth in employment seen in the past faded in early 2019. The employment rate has risen above 72%, while the unemployment rate has fallen to around 6.5%. Slow employment growth will continue over the forecast horizon. In 2019–2021, the number of persons employed will increase by around 40,000 and the employment rate climb to a little over 73%. The decline in the unemployment rate will flatten out to stand slightly above 6% at the end of the forecast period.

Chart 11.

Employment growth slowing



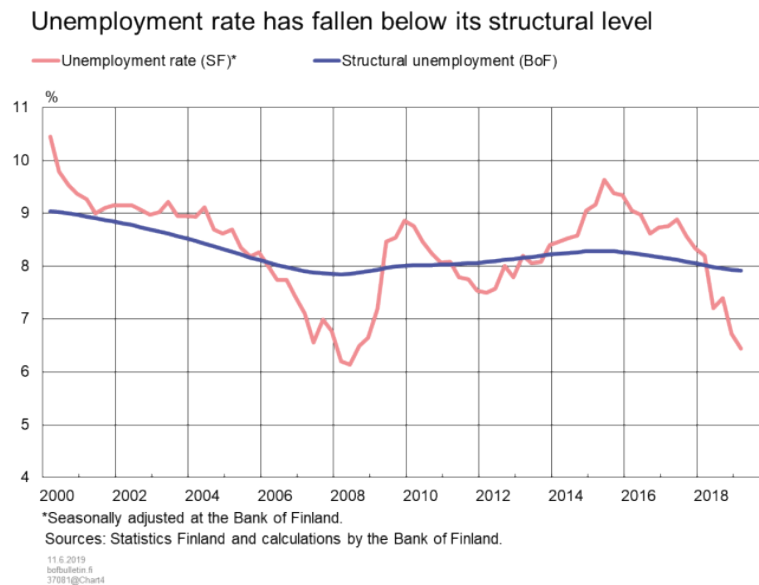
A moderation in the pace of employment growth is discernible in many sectors. After experiencing a surge in employment, the construction sector has now passed its cyclical peak, reflected in a downward trend in the sector's employment. Manufacturing saw an increase in employment until the end of 2018, but the rise has tailed off, in response to a deterioration in global cyclical conditions and slackening exports. The most rapid phase of employment growth appears to be over also in trade, accommodation and food services, social welfare and health services, education and public administration, whereas employment continues to grow in other sectors. Similarly, the downturn in employment expectations in the main sectors at the end of last year also points to slowing employment growth, despite a further increase in vacancies.

The exceptionally rapid employment growth in 2018 will remain a temporary phenomenon. During the past 18 months, economic growth has been reflected in the labour markets above all as an improvement in employment, while growth in labour

productivity has remained very modest. The situation is expected to normalise during the forecast period, in that growth will become more evenly distributed between employment and productivity.

The unemployment rate has dropped one percentage point since the year before. The recent decline in the unemployment rate has largely been of a cyclical nature, indicated by the fact that the unemployment rate fell below the estimated rate of structural unemployment already in early 2018 (Chart 12). This implies that the decline in the unemployment rate is sensitive to changes in cyclical conditions. Part of the decline is, nevertheless, attributable to structural factors, such as slower growth in labour costs and recent labour market reforms.

Chart 12.

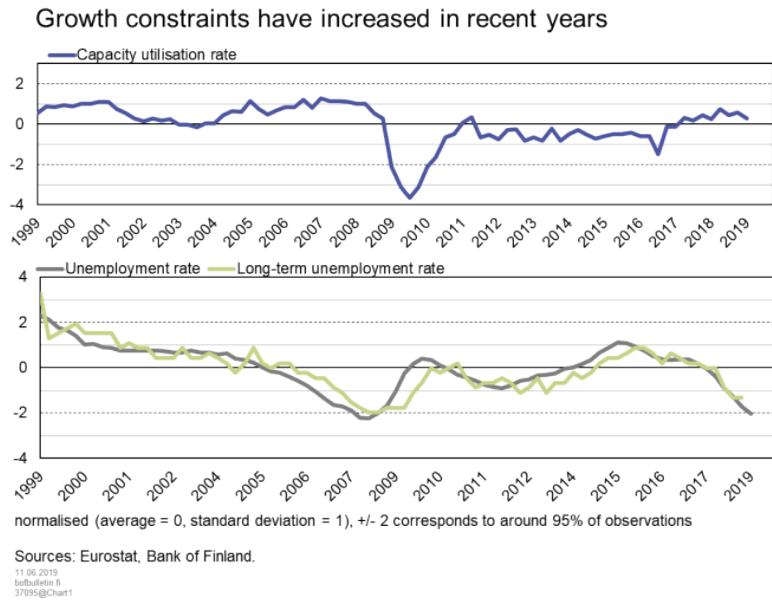


Despite the slowing of employment growth, availability of labour acts as a constraint on employment growth in some sectors. Labour mismatch problems are holding back job creation and maintaining structural unemployment. The decline in the working-age population will also constrain employment growth in the forecast years, as will the fading of the effects of the structural reforms undertaken during the past few years.

Capacity constraints no longer increasing

Constraints on growth have increased as a result of the upswing in recent years. As employment has rapidly improved during the past year, the capital stock has not kept up with the growth in labour. The capacity utilisation rate has increased slightly above average, while companies report problems of labour availability. In response to the weakening of the global economy and the fixed investments made, capacity utilisation rates have not been increasing anymore just lately (Chart 13).

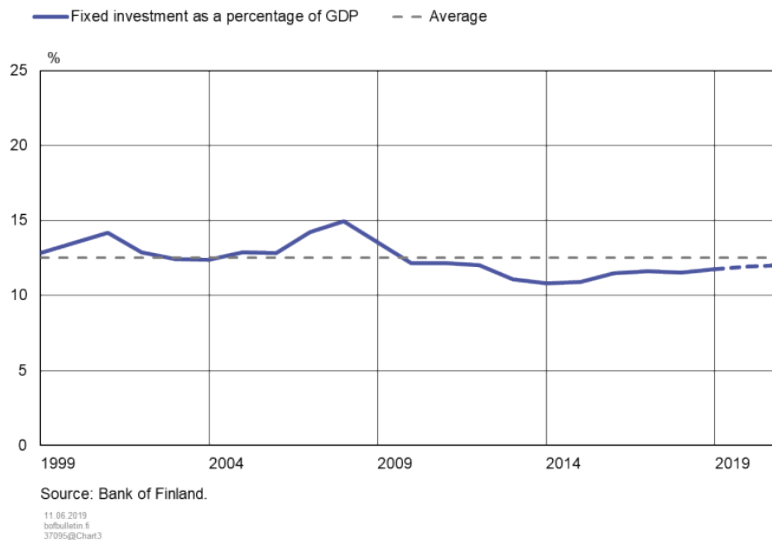
Chart 13.



With economic growth losing momentum, capacity constraints will no longer be tightened towards the end of the forecast period. Fixed investment will expand, contributing to this development. The growth in fixed investment notwithstanding, the investment rate will remain well below the rate before the financial crisis (Chart 14). The low level of fixed investment may, in part, reflect a shift in the structure of the economy towards an increasing dominance of services.

Kuvio 14.

Fixed investment remains negligible

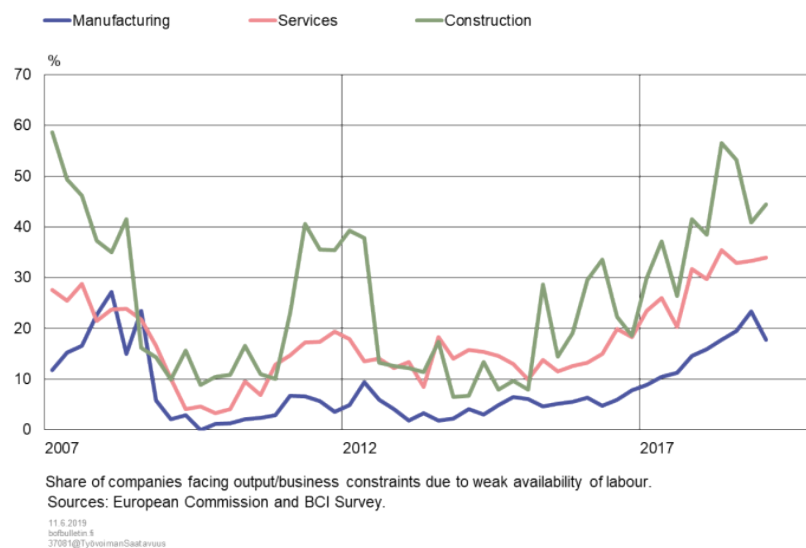


Weak labour availability remains a problem. Companies continue to report difficulties in recruiting skilled labour in all the main sectors, although the problems have not been further aggravated (Chart 15). Both the unemployment rate and the long-term

unemployment rate have dropped well below the average recorded for Finland during the euro era (Chart 13). The construction sector is assessed as facing the largest difficulties in finding skilled labour, but the labour situation will improve with the slowdown in new-build construction. In services, the shortage of labour has stabilised but is still larger than during the previous cyclical peak, while industrial employers also report problems of labour availability. While demand for labour is weakening, many service sectors may still continue to experience a shortage of labour, as labour supply is concurrently restrained by a reduction in the working-age population.

Chart 15.

Availability of labour continues to constrain output growth



Economic growth falling back to its long-term potential rate

GDP growth has passed its cyclical peak. GDP has increased briskly over the past few years, with output growth exceeding its potential rate^[4] and the output gap closing. Towards the end of the forecast period, GDP growth will broadly mirror potential output growth.

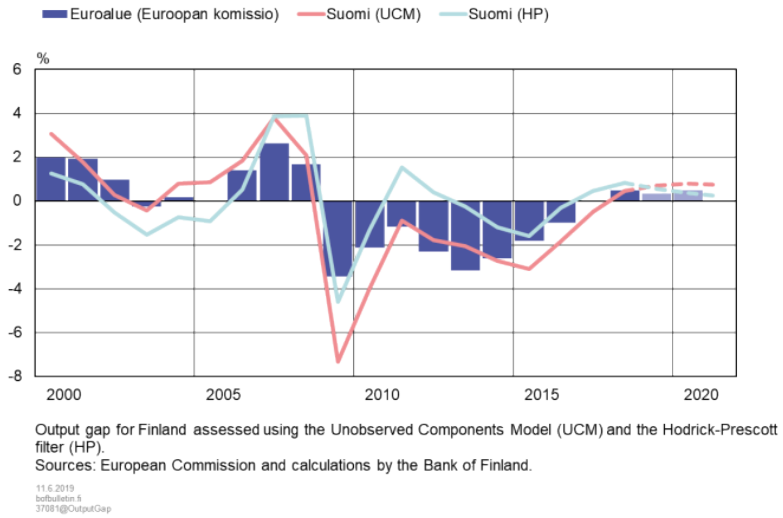
The output gap remained negative both in Finland and in the euro area for an exceptionally long period during the double-dip recession that followed the financial crisis, meaning that economic resources were being underutilised. As economic conditions have improved, the capacity utilisation rate and employment have also strengthened. As it stands, less economic slack is available for raising production than before. Yet, although positive, the output gap will remain moderate, as economic growth will slow (Chart 16).^[5]

4. Potential output is the level of real GDP when all the economy's factors of production are fully utilised.

5. 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](#))

Chart 16.

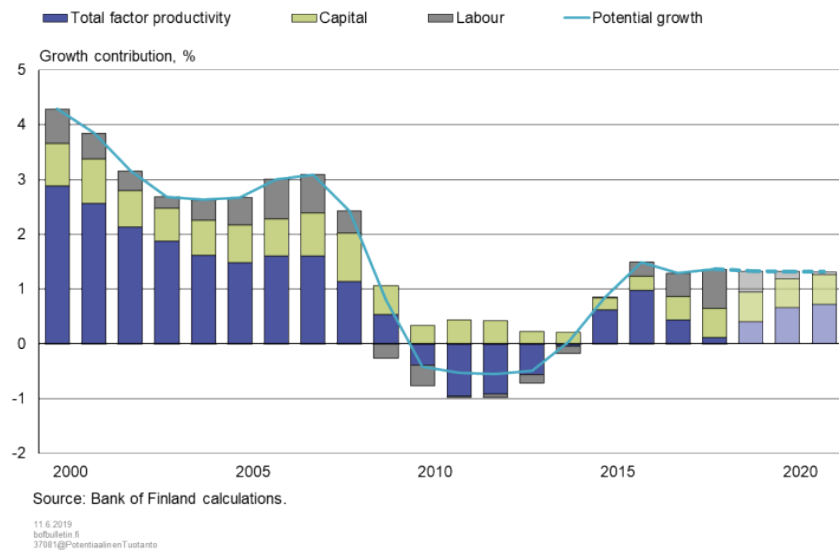
Output gap closed



The growth in potential output is significantly slower than before the financial crisis (Chart 17). Total factor productivity has strengthened since the protracted downturn, but it is nevertheless far below record years. In 2019–2021, 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 may fade. The supply of labour will wither despite the projected improvement in the employment rate. Labour supply is restrained as the 15–74-year-old population begins to decrease, while the rate of structural employment remains high, despite a slight dip.

Kuvio 17.

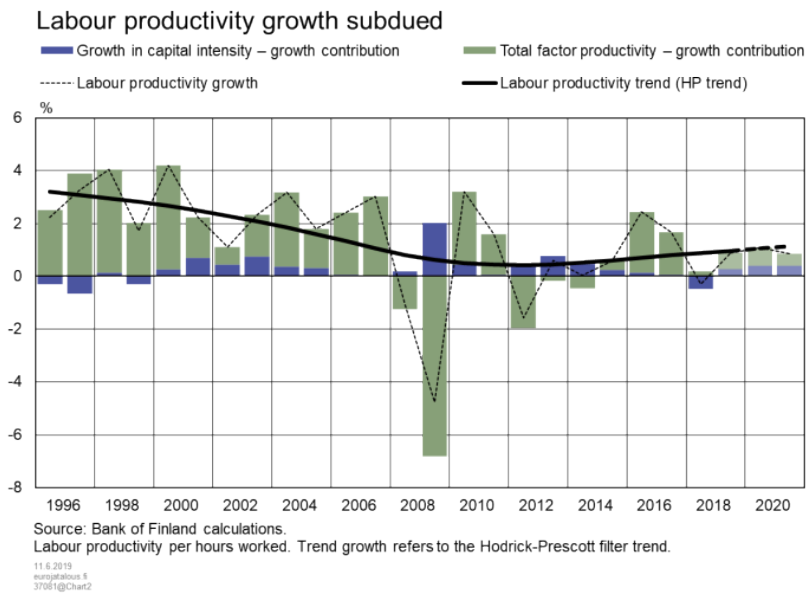
Potential output growth subdued



Following a protracted downturn, labour productivity increased at an annual rate of

around 2% over the years 2016–2017. While the economy was expanding at a rate of over 2% in 2018, there was no increase in productivity, due to exceptionally strong employment growth. Going forward, employment and productivity are expected to provide more balanced support to economic growth. In 2019–2021, the pace of labour productivity growth will be slow, on average 2%. The higher capital intensity of the economy will, however, improve labour productivity slightly, reflecting the larger amount of capital available per hours worked (Chart 18).

Chart 18.



Labour productivity growth is set to remain considerably slower than in the first post-millennium years, when the annual growth rate averaged 2.5%. The slowdown in productivity growth can be explained by e.g. the smaller weight of high-productivity industries and increased dominance of services in the economy, a shift in investment from machinery and equipment to housing as well as a contraction in the share of R&D investment. ([Several reasons behind weak labour productivity](#)). For example, despite passable growth in machinery and equipment, the growth rate will remain close to the lowest figures recorded in the new millennium relative to GDP. Slower productivity growth has also been witnessed in many other advanced economies (see e.g. [OECD Economic outlook May 2019 chapter 2](#)).

Costs and prices

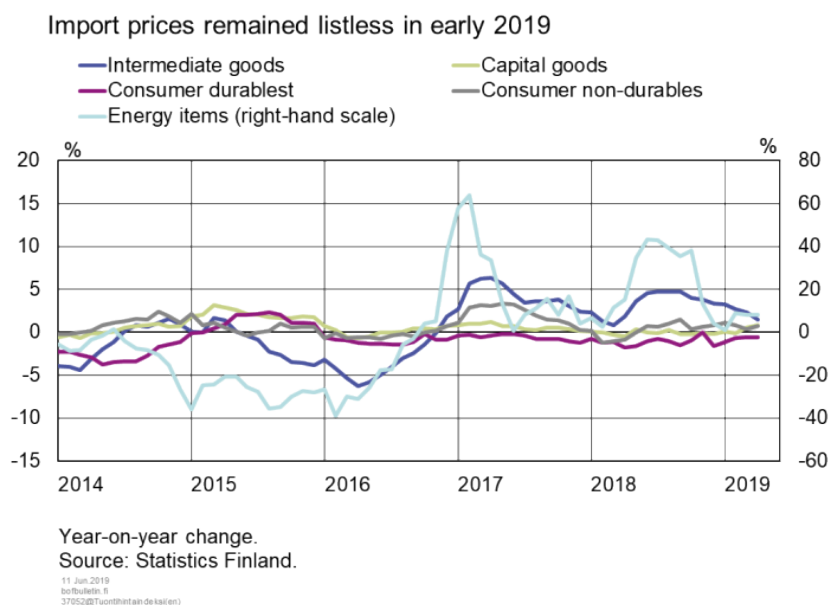
Inflation will continue to pick up moderately over the forecast period. Faster nominal wage growth than in recent years will contribute to rising consumer prices. Growth in the nominal earnings of wage and salary earners will exceed 2% in 2019. The temporary reduction in public sector holiday bonuses is set to expire in 2020 and will accelerate wage growth even further.

External price pressures will remain subdued

Annual growth in the import prices for industrial goods has slowed in the first half of 2019 relative to previous years (Chart 19). In particular, growth in the import prices for energy items has declined significantly. Oil futures anticipate a gradual decline in the price of crude oil to approximately USD 63 a barrel during the forecast period. Fears of further trade war escalation are expected to weigh on oil demand. Price expectations for electrical energy during the forecast period have recovered from a sustained decline but nevertheless remain weaker than at the turn of the year. Import prices on consumer and capital goods have continued to develop sluggishly in the early part of 2019.

Annual growth in producer prices for agricultural products and industrial goods manufactured and sold in Finland has been slightly slower in early 2019 than in 2018. Meanwhile, producer prices in the service sector have picked up somewhat in Q1 2019, covering services sold to households and firms as well as to general government.

Chart 19.

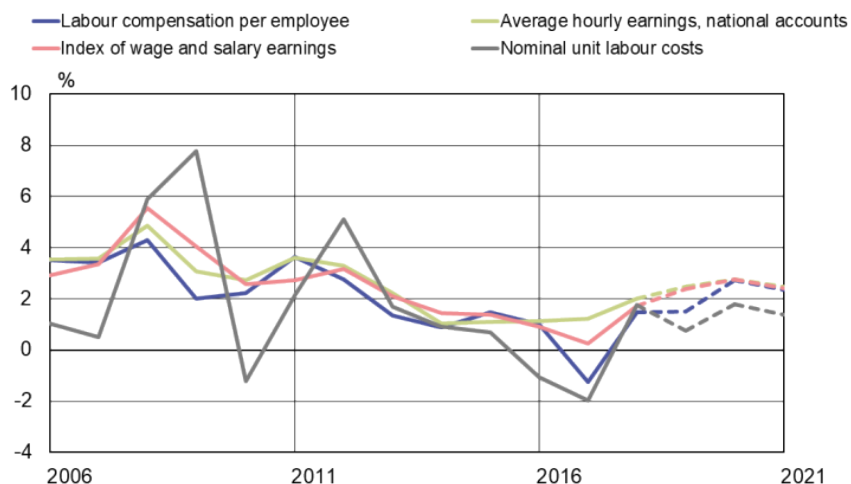


Wages and labour costs continue to rise

Nominal wage growth strengthened markedly in 2018 (Chart 20). Average labour costs (i.e. labour compensation per employee) increased by about 1.5%, and average productivity declined. As a result, unit labour costs expanded again last year.

Chart 20.

Wages and unit labour costs continue to rise



Sources: Statistics Finland and Bank of Finland.

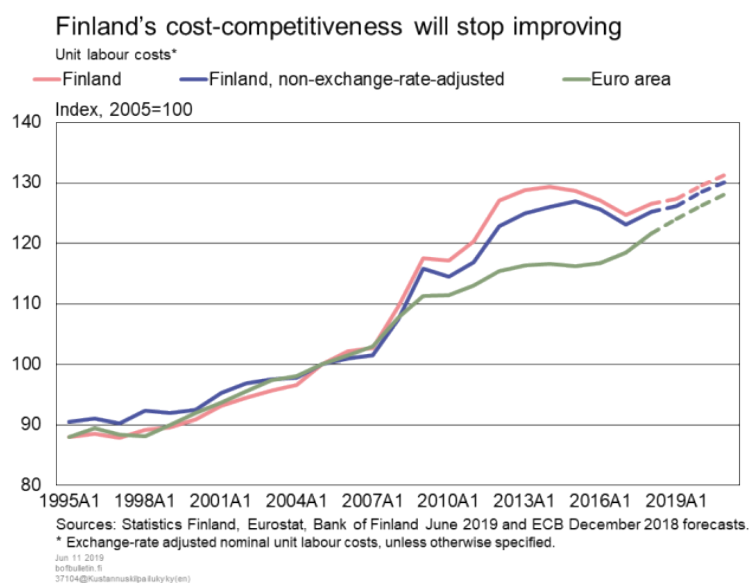
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At the start of the forecast period, wage growth will still largely be determined by the collective wage agreements negotiated for 2018–2019, still currently in effect. Accordingly, negotiated wages will rise by 1.6% in the private sector and about 2% in the public sector in 2019. In the economy-wide aggregate, nominal wages will increase by about 2.4% in 2019 as measured by the index of wage and salary earnings. In 2019, average labour costs will grow at a considerably more moderate pace than average earnings, owing to cuts in employers' social security contributions. The temporary reduction in public sector holiday bonuses, as outlined in the Competitiveness Pact, will end in 2020 and boost wage growth to almost 2.8%. In 2020 and 2021, labour costs will increase at a similar pace as average earnings. Nominal earnings, taken as average hourly earnings based on the wage bill, will rise at an average annual pace of 2.6% during the forecast period.

Per-employee productivity contracted slightly in 2018 but will grow at an average annual rate of just under 1% over the forecast horizon. Unit labour costs will increase at a moderate pace of below 1% in 2019, slower than the euro area average (Chart 21). Finnish cost-competitiveness will thus continue to improve relative to the euro area, based on this measure. Unit labour cost growth is projected to accelerate to an average rate of just over 1.5% in 2020 and 2021, which is largely in line with developments in the euro area.

Finland is due to hold comprehensive collective bargaining negotiations in 2019 and 2020. The forecast is based on the technical assumption that real wages will increase at a pace similar to the rate of productivity growth in 2020 and 2021. Following this assumption, Finland will retain its improvements in cost-competitiveness relative to the euro area, if developments in the euro area correspond with the forecast. Higher pay rises, in contrast, would weaken Finland's cost-competitiveness.

Chart 21.



Moderate acceleration of inflation will continue

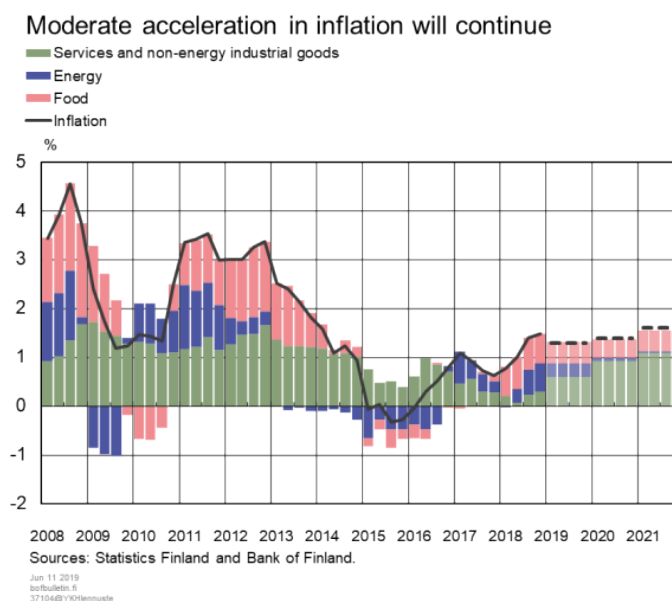
Inflation as measured by the harmonised index of consumer prices (HICP inflation) will come in slightly below 1.5% in 2019 and 2020, and 1.6% in 2021 (Chart 22).

Consequently, consumer price growth will remain on a relatively subdued path, having even contracted slightly in 2015.

During the forecast period, consumer price growth will be supported by wage rises, which will gradually feed through into services prices, in particular. In addition, inflation will receive a slight momentum in 2019 from the tax hikes introduced at the turn of the year on tobacco products, alcoholic and non-alcoholic beverages, and heating fuels. The new government's policy proposals regarding indirect taxation and other administered prices will be taken into account in the Bank of Finland's December 2019 inflation forecast.

Because headline inflation is currently above measures of core inflation (see '[Measures of core inflation filter out temporary price changes](#)'), it is likely that the former will see more moderate developments in the coming months. Nevertheless, measures of core inflation have picked up. Firmer underlying price pressures will help ensure that the moderate acceleration in inflation is sustained. In the forecast period, consumer price inflation will be bolstered primarily by rising prices in services and, to a degree, food. Non-energy industrial goods will contribute slightly negatively to inflation for most of the forecast period.

Chart 22.



Risk assessment and alternative scenario

The risks of the forecast clearly indicate that the economy is weakening. The threat of an escalation of the trade war overshadows stable economic growth and is causing uncertainty for the Finnish economy. A particular concern for Finnish exports is the dwindling outlook for the main export markets in Europe, especially in Germany. Even domestic risks point to weaker-than-expected growth.

Shadows continue to loom over the global economy

The growth outlook for the global economy and the euro area has diminished since the start of the year, and uncertainty about stable economic developments has increased. Rising protectionism poses a threat to the Finnish economy. An escalation of the trade war would further erode confidence in the global economy and impact investment growth. This, in turn, could have very negative effects on Finnish exports.

It is difficult to estimate the magnitude of the negative effects of a trade war. An increase in protectionist measures may alter trade flows and production chains to the detriment of Finnish exports (Table 3). While the direct effects of a trade war would have only little impact on Finnish exports, the indirect adverse effects would be markedly greater.

China's slowing economic growth and the trade war with the United States may have unpredictable effects due to the complexity of global value and production chains. China's importance for Finnish exports has grown in the past few years. China's slowing growth and growing indebtedness is cutting into the country's imports and investment. The trade war with the United States, in particular, may escalate the issues in the Chinese economy. A significant weakening of Chinese growth would dampen Finnish exports to China.

The outlook for Finland's main export markets in Europe, and especially in Germany, weakened substantially during the spring, even though growth had picked up at the beginning of the year. This is of particular concern for Finnish exports. Most recent statistical data, for example consumer confidence in Europe, indicate that the decline is levelling out, but it is not yet certain how temporary the economic weakness of Europe and the euro area will be. Prolonged weak economic growth in the euro area would inevitably be reflected in Finland's export demand and exports.

In recent years, the car industry has experienced a record number of major problems and the challenges are far from over. The latest of the threats have been external, caused by the slowing growth in China, the escalating trade war and the uncontrolled Brexit-situation. The car industry is also struggling with some hard-to-measure variables, such as shifts in consumer attitudes. The realisation of these risks would be a threat to the economy of the entire euro area.

Uncertainty regarding the United Kingdom's withdrawal from the EU continues, effectively weakening overall confidence. The prevailing uncertainty about an agreement has negative impacts on companies engaging in foreign trade between Finland and the UK. The UK is an important export market for Finland. And while the direct effects of trade barriers between Finland and the UK may be small, it could result in far greater indirect effects. Protracted uncertainty potentially leading to a 'no deal Brexit' would have adverse effects on the development of Finland's export markets, as it would become increasingly difficult for Finnish companies to export anything to the UK.

The risks to the international economy as a whole are clearly on the downside. Slowing investment growth in important export markets could dampen Finnish exports significantly.

Table 3.

Trade war poses significant threat to global economy

Foreign risks

- (--) Protectionism and a spreading trade war and its impact on Finnish export markets
 - (--) China's growing issues may hamper Finnish exports
 - (-) Brexit
 - (-) Prolonged slowing of economic growth in the euro area
-

Domestic risks also on the downside

The downside risks to the forecast for the Finnish economy have recently increased significantly. The Finnish economy may grow more slowly than projected, especially in 2019. The upside risks to the forecast are mostly related to non-residential investments.

Labour costs have increased moderately for several consecutive years, contributing to the competitiveness of Finnish export companies. However, cost-competitiveness may deteriorate rapidly if Finnish wages begin to rise faster than in Finland’s competitors. If unit labour costs start rising faster than in competing countries, this would weaken the relative competitiveness of companies operating in Finland (Table 4).

The baseline forecast does not take into account the investment plans of individual companies. Non-residential investment growth may pick up quicker than forecast in the years ahead, if the significant investments in the forest and energy industries proceed as planned. Should these investments materialise, manufacturing investment will grow faster than the forecast baseline. In an environment of favourable conditions and small financing costs, there is good potential for new investment projects. In the longer term, larger investment projects increase productivity and strengthen exports.

In the last few years, household indebtedness has grown significantly. High household indebtedness poses a risk that could materialise if the economy were to deteriorate significantly. In such a situation, the housing market could also slow down quickly, as unemployment begins to rise and employment to decline. A worsening of the economic cycle combined with the high debt burden would slow private consumption growth faster than projected.

Table 4.

Domestic downside risks have also increased

Domestic risks

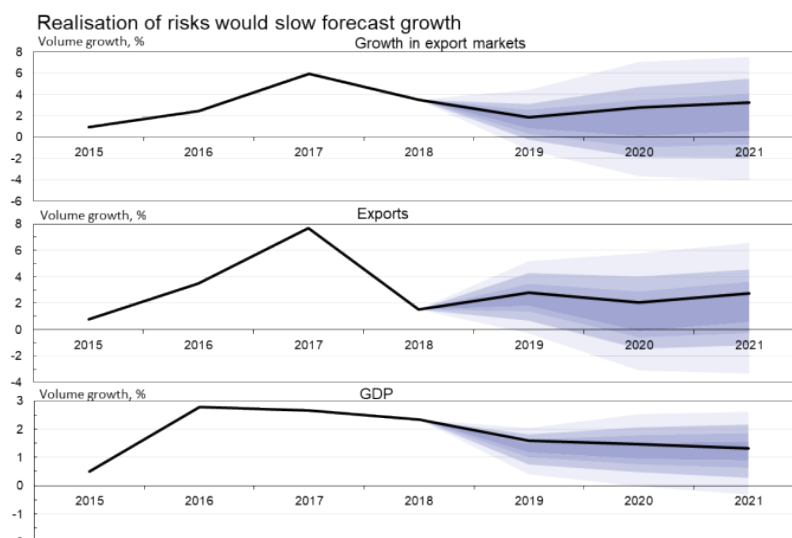
(--)	Downside risks to the Finnish economy have increased, and economic growth may remain slower than anticipated in the short term
(+)	Fixed investments may grow faster than anticipated
	• A favourable environment for companies and relaxed financing costs
(-)	Rapid cooling of the housing market
(-)	Growing household indebtedness amidst a significantly weakening economy
(-)	Wage increases exceed productivity

Risks to the international economy threaten to slow growth

The most significant downside risk to Finland’s growth forecast stems from the uncertainties in the global economy. Realisation of global economic risks and weaker growth in the export markets would weigh on Finnish exports, in particular. Weaker exports, in turn, would be reflected in economic growth, which would underperform the baseline forecast.[6] Forecast uncertainty related to risks to the export markets is best illustrated by fan charts (Chart 23). The asymmetry of the distribution is indicative that the risks to the export markets fluctuate unevenly around the baseline forecast. The fan

charts illustrate the forecast uncertainty related to external factors and provide an assessment of asymmetrical risk factors. The GDP growth forecast for 2019 is also lowered by the downward revision of GDP statistics at the end of 2018 in the latest statistical release (see [Recent statistics suggest a faster-than-expected slowing of the economy](#)) which could not be taken into account in the baseline forecast.

Chart 23.



Sources: European Central Bank and calculations by the Bank of Finland. The black line represents the baseline forecast. The different shades of colours represent 90%, 70%, 50% and 30% probability intervals.
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Risks to the export markets are tilted on the downside compared with the baseline. As a result, the uncertainty around the baseline is asymmetrical with regard to growth in the export markets (Chart 23). With this level of uncertainty included, annual export market growth displays a spread of about -4% to 7% during the forecast years 2020–2021.

To assess how sensitive the Finnish economy is to uncertainties stemming from the external environment, the forecast can be conditioned on the uncertainty surrounding the export markets. Uncertainty surrounding export market growth is directly reflected in Finnish export demand, which is why the alternative forecast paths for exports are tilted on the downside compared with the baseline. Using the standard forecast assumption as baseline, export growth displays a spread of -3% to 6% over the forecast years 2019–2021.

Weak exports, in turn, are reflected in GDP growth, whereby the risks to GDP are also predominantly on the downside compared with the baseline, especially in the short term. The GDP forecast fluctuates both above and below baseline, from 0% to 2.5% and is strongly skewed on the downside. Yet, in light of the alternative scenario, the probability of economic growth coming to a halt in the forecast period is very small.

The materialisation of risks to the global economy would dampen Finnish export demand significantly and potentially lead to a slight contraction of exports, even in the immediate years ahead. However, a complete cessation of GDP growth would require either longer-than-expected deterioration of the export markets or a simultaneous triggering of risks to the domestic economy, for example as a result of an escalation of a trade war.

Tags

international trade, public finances, gross domestic product, inflation, forecast, Finland, employment, economic growth, economic forecast

Improvements in employment held back by population ageing

TODAY 1:00 PM • BANK OF FINLAND BULLETIN 3/2019 • ECONOMIC OUTLOOK

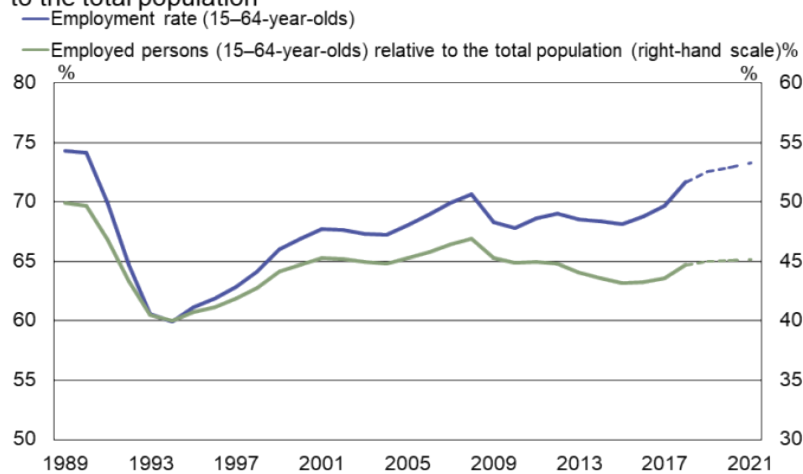
The employment rate is the key indicator of employment developments and the conditions for meeting public expenditure. However, with the ageing of the population, a rise in the employment rate (i.e. the ratio of employed persons to the 15–64-year-old population) no longer automatically implies an increase in the number of employed, as the rise may reflect a reduction in the working-age population as well as an increase in the number of employed persons. In other words, if there is a sufficiently rapid decline in the 15–64-year-old population, the number of employed may decrease even if the employment rate rises or remains unchanged. Hence, if the employment rate for the various age cohorts remains at the 2018 level, the number of employed would still contract by close to 15,000 persons during the forecast period.



The financing of the welfare state is crucially dependent on the ratio of employed persons to the total population. This ratio, which is referred to as the economic dependency ratio, declined markedly in the aftermath of the financial crisis, in response to a contraction in employment following the protracted recession and the concurrent retirement of the baby-boom generation. While the strongest wave of ageing is now behind us, the proportion of the population of working age relative to the total population continues to shrink, which weighs on the efforts to raise the economic dependency ratio. Over the forecast years, the employment rate will rise further by 1.6 percentage points from the 2018 level, whereas the proportion of the employed population will increase only 0.5 of a percentage point.

Chart 1.

Population ageing reduces the number of employed persons relative to the total population



Sources: Statistics Finland and calculations by the Bank of Finland, figures for 2019–2021 from Bank of Finland's June 2019 forecast.

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Growth in labour input is also constrained by a long-term downward trend in working hours, which implies a reduction in average working hours per employee over time. If the trend towards shorter working hours persists, an increase in the number of employed persons will not yield an equivalent increase in working hours. Ultimately, the changes in working hours in relation to the total population are the best measure of the welfare state's funding base. Working hours have increased more slowly than the employment rate and the number of employed persons.

Tags

[employment](#), [employment rate](#), [population ageing](#)

Measures of core inflation filter out temporary price changes

TODAY 1:00 PM • BANK OF FINLAND BULLETIN 3/2019 • ECONOMIC OUTLOOK

Much of the movement in consumer prices is made up of short-lived volatility. This makes it harder to monitor price pressures within the economy. Measures of core inflation aim to keep track of price developments that are not driven by temporary factors. Core inflation can be derived from price indices, either by omitting particularly volatile product groups from the index or by weighting product groups based on their statistical properties. Because responding to short-term price fluctuations is not conducive to price stability, measures of core inflation are a valuable tool for gauging the stance of monetary policy.



Movements in the pace of inflation in Finland over the past year have been especially influenced by changes in the prices of energy and food items – as is often the case. Since it is well established that these product groups are susceptible to considerable short-term price volatility, one method of measuring core inflation is by monitoring a suitable price index with these items omitted. Indeed, much of the volatility in energy and food prices is caused by factors only faintly connected to the Finnish economy as such. For instance, energy prices in Finland are highly dependent on the price of oil, but the oil price is influenced by global economic growth and geopolitical developments. Unprocessed food prices are influenced by the success and failure of harvests, both in Finland and abroad. Processed foods, in turn, are subject to a wide array of tax changes.

Temporary factors also create volatility in other product groups. For example, early childhood daycare fees were lowered in January 2018, resulting in a 0.13 percentage point decline in Finland’s annual inflation rate for the same year. Seasonal factors should not have a material effect on developments in inflation, as inflation is measured as the change of the price index with respect to the corresponding month a year earlier.

However, temporary variation in prices does arise when public holidays fall on different dates. One such example is Easter, which was celebrated in April in 2019 but in March a year earlier. As a result, travel prices first declined in March 2019 relative to 2018 but shot up in April relative to the same period a year earlier.

In practice nearly any subcomponent of a price index can fall under the spell of unusual, temporary factors. An alternative approach to measuring core inflation involves weighting each product group based on its statistical properties, thus mitigating the effects of price movements considered temporary.

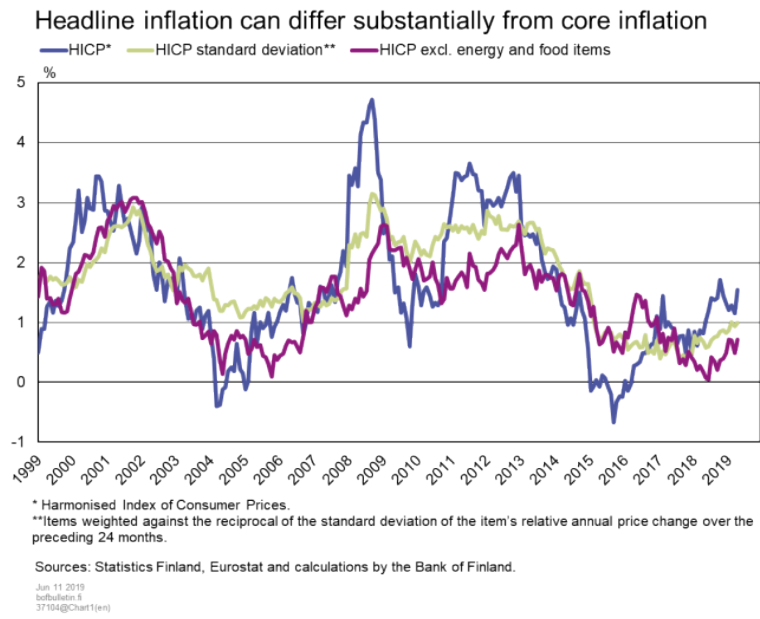
Product groups with both the fastest and slowest inflation rates can be expunged from a price index, giving what we call the ‘trimmed mean’ measure of core inflation. Another approach involves selecting a common variable that determines the price development of different product groups using principal component analysis and measuring core inflation based on the movements in the principal component. Product groups can be weighted by the reciprocal of the standard deviation for each product group’s price changes over a certain period of time. Items with markedly volatile inflation rates thus receive a smaller weighting. Based on a comparison of these methods drawing on Finnish data, the standard-deviation-weighted measure of core inflation proved to be the most informative.^[1]

Headline inflation, as measured by the Harmonised Index of Consumer Prices (HICP), has fluctuated on both sides of the measures of core inflation, but deviations in either direction have been short-lived, lasting for just a year or two (Chart 1). When HICP headline inflation is compared against the two measures of core inflation – HICP excluding energy and food and the standard-deviation-weighted approach – the resulting deviations are longer-lasting relative to the former than to the latter. This is because during the review period, growth in food and energy prices has, on average, been faster than in services and non-energy industrial goods. Although the two measures do track closely together, short-term fluctuations can be observed in the HICP excluding energy and food. This confirms the fact that even HICP components other than energy and food exhibit short-term volatility. Accounting for this makes it easier to monitor price pressures within the economy.

HICP inflation accelerated in Finland in the summer of 2018 (Chart 1). The pick-up in inflation was prompted by price rises in energy and food items. Thus, change in the total index has been quicker than in the HICP excluding energy and food. Headline inflation has also been faster than the weighted-standard-deviation measure of core inflation. Because headline inflation is currently above measures of core inflation, it is likely that developments in inflation will prove more moderate in the coming months. Nevertheless, measures of core inflation have picked up. Firmer underlying price pressures will help ensure that the moderate acceleration in inflation is sustained.

1. Similar comparisons for the euro area ‘Measures of underlying inflation for the euro area’ and Sweden ‘Measures of core inflation in Sweden’.

Chart 1.



Tags

consumer prices, core inflation, inflation, measures of core inflation

ALTERNATIVE SCENARIO

Raising the employment rate to 75% will require much faster economic growth

TODAY 1:00 PM • BANK OF FINLAND BULLETIN 3/2019 • ECONOMIC OUTLOOK

One of the key goals of the Government Programme is to raise the employment rate to 75% by the end of the government term. This means increasing the current number of people in employment by around 75,000 by the end of 2023. Raising the employment rate to 75% is a prerequisite for balancing general government finances and reducing the sustainability gap in the public finances, as set out in the Government Programme.



If near-term economic growth is to remain somewhere below 1.5%, i.e. as foreseen in the baseline forecast, achievement of the objective will be unlikely. Between 2020 and 2023, GDP growth should be around 2.5% per annum, i.e. one percentage point faster than the baseline forecast, in order to achieve the target. Reaching the employment rate target would mean that between 2019 and 2023, employment would need to be increased by around 75 000 persons.

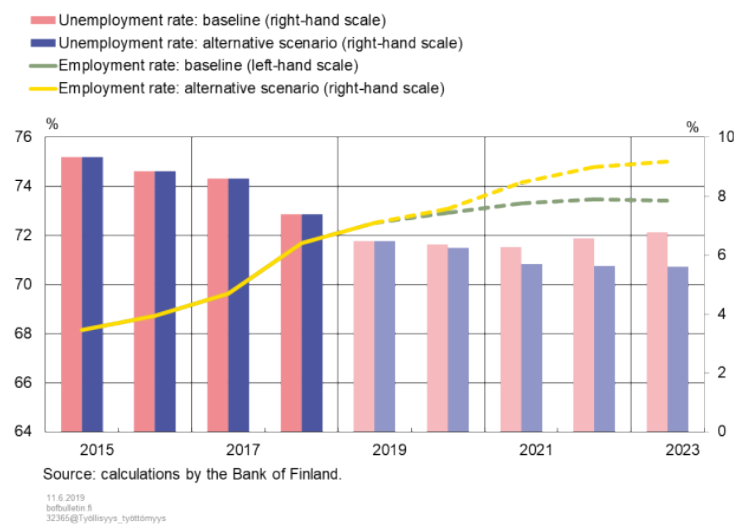
This alternative scenario does not aim to assess which measures are needed in order to raise the employment rate. Notwithstanding, the alternative scenario does assume that productivity growth will accelerate, competition on the commodity markets will increase and labour market performance will improve. It is clear that in order for these assumptions to materialise, structural reforms are required, including structural reforms on the labour market. However, the scenario does not express an opinion on the nature of these reforms and subsequently does not, for example, include the actions set out in

the Government Programme. As the risks to Finland’s international economic environment are currently on the downside, the alternative scenario assumes that the export markets will not grow faster than the baseline, but that demand will be more focused on Finnish export products. The scenario was produced using the Bank of Finland’s general equilibrium model.^[1]

The employment rate has markedly increased in recent years. Its trend was 72.4% in the first quarter of 2019, which is significantly higher than the peak before the financial crisis. The pick-up in economic growth, the upswing that has lasted for several years, as well as structural reforms on the labour market have increased the recruitment of new employees (Chart 1). Recent measures that have influenced the structure of the labour market include changes made to unemployment benefits that have strengthened the incentives to work. Demand for labour, in turn, has been supported by the Competitiveness Pact, which resulted in a reduction in labour costs.

Chart 1.

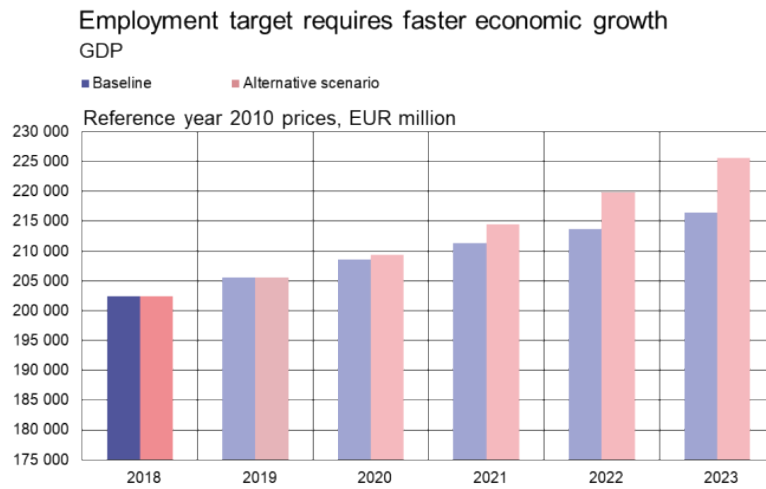
Under baseline forecast employment rate falls short of target



Based on the estimate, between 2020 and 2023, GDP growth would have to average around 2.5% per annum, i.e. one percentage point faster than in the baseline forecast, in order to achieve the employment rate target. Raising the employment rate to 75% would require that in 2023, GDP would exceed the baseline by almost EUR 9 billion (Chart 2). Significantly faster economic growth, in turn, requires significantly improved productivity and stronger investment and export growth.

1. Kilponen – Ripatti – Orjasniemi – Verona, 16/2016.

Chart 2.



Source: calculations by the Bank of Finland.

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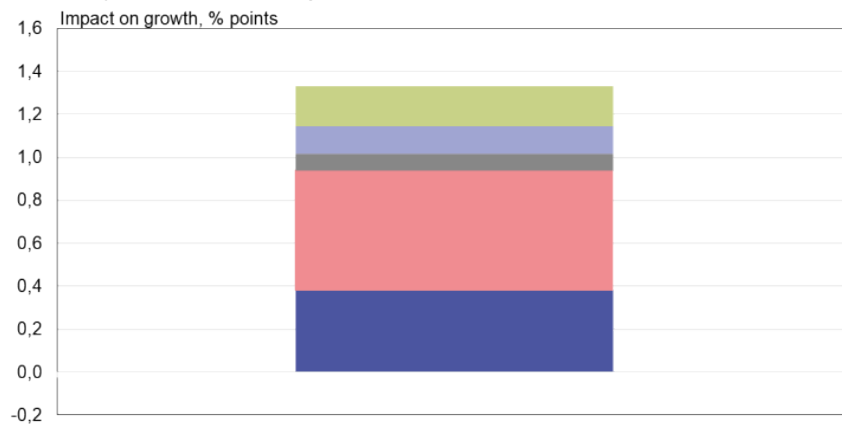
Structural factors behind economic growth, such as productivity growth and labour market mechanics, have a key impact on employment development. Technically, in the model estimate, productivity is expected to improve markedly faster than in the baseline forecast, which will also increase labour input over time. In the baseline forecast, productivity growth is estimated to be around 1% per annum, which is close to the historical average since the introduction of the euro. However, in the alternative scenario, productivity is estimated to grow faster than the long-term average, with an average annual growth rate of 1.5%. Growth is most affected by accelerating productivity growth and improved performance of the domestic market, whereby competition in commodity markets increases and labour market performance improves (Chart 3).

Chart 3.

Productivity growth and improved performance of domestic market stimulate output growth*

Difference in annual growth between alternative scenario and baseline 2020–2023

■ Competitiveness ■ Productivity ■ External factors ■ Domestic demand and taxes ■ Other



Source: calculations by the Bank of Finland.

2020–2023

*Private output. In the alternative scenario, private output average annual growth is 1.3 percentage points higher than baseline.

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The scenario assumes that from 2020 to 2023, the number of working hours grows almost parallel to the employment of 15–64-year-olds. Wages will remain on the same growth path as the baseline forecast despite markedly improved productivity growth, as labour market performance is expected to improve. Productivity growth increases domestic output and strengthens cost-competitiveness. Output growth, in turn, increases the number of working hours and persons employed. This boosts real purchasing power, as increased working hours raise the wage bill and improved productivity slows price increases.

In order to increase productivity and employment, both non-residential investment and exports must be raised significantly from their current levels. In the alternative scenario, investment and export growth will pick up markedly despite the assumption that export demand is similar to the baseline forecast. This is partly due to a marked improvement in cost-competitiveness. On the other hand, the scenario also assumes that demand will be more focused on Finnish export products than currently. Although the basic conditions in the Finnish economy for accelerating investment and export growth exist—for example, good profitability of companies, low financing costs and strengthened cost-competitiveness—the realisation of growth and exports clearly outpacing the baseline forecast also requires the dissipation of uncertainty in the global economy in order to increase the market shares of exports in a manner consistent with this scenario.

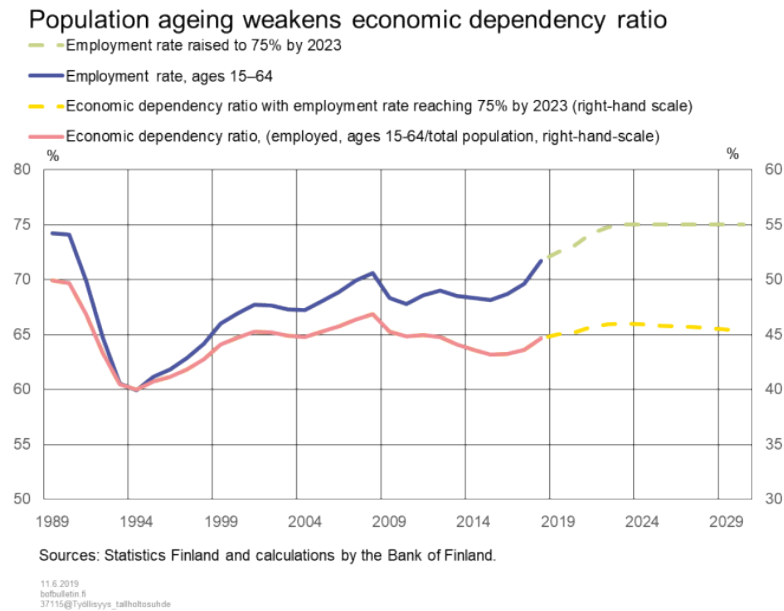
The rise of unit labour costs slows down. Higher domestic demand and growing exports also increase imports. Against a backdrop of improved price-competitiveness, net exports strengthen compared with the baseline. Investment growth is affected by enhanced productivity, which helps improve expected returns on investment. Investment picks up, boosted by exports and domestic demand. Accelerated economic activity improves the employment situation and decreases unemployment. The amelioration of the employment situation and growth of the wage bill increase households' purchasing power and private consumption.

Overall, due to higher productivity growth, the improved performance of the domestic market and the stronger competitiveness of the export sector, the alternative scenario foresees the economy adjusting to a faster growth path. The alternative scenario does not evaluate the impacts of faster economic growth on the public finances. However, significantly increased employment and, similarly, reduced unemployment would increase the imputed tax revenue for the public finances and reduce unemployment expenditure, thereby strengthening Finland's general government balance. Then again, their impact on the public finances will depend on, for example, whether strengthening the incentives to work, increasing labour policy or alleviating labour market mismatch problems would actually improve labour market performance.

Raising the employment rate to 75% during the government term would strengthen the sustainability and funding base of the public finances, as it would also increase the ratio of employed persons to the total population, i.e. the economic dependency ratio. As the population ages, the proportion of the population of working age relative to the population as a whole continues to shrink, which is why higher employment does not improve the dependency ratio to a corresponding degree. With the current population projection, the 2023 target employment rate of 75% would raise the proportion of the employed population to 46%. Thus, the dependency ratio would remain lower than

before the financial crisis, even though the employment rate would be close to 5 percentage points higher (Chart 4). Correspondingly, even though the employment rate would remain at 75% after 2023, the economic dependency ratio would yet again begin to deteriorate, as the proportion of the population of working age would further decline.

Chart 4.



The 75% employment rate target set in the Government Programme is an important target. By international standards, it would be among the highest in the OECD countries. For example, in Norway, Denmark, Sweden and Germany, the employment rate is 75% or higher. Economic structures and external demand will ultimately determine whether Finland can achieve the employment rate target.

The alternative scenario assumes that employment will rise mainly due to supply factors, but demand factors are also taken into account. Productivity and non-residential investment as well as export growth can be influenced only indirectly, for example by investing in education and research. However, the productivity impacts of such investments take time to unfold. In the current global economic situation, where there is considerable uncertainty associated with the development of export markets, a 75% employment rate is a challenging objective.

Table 1.
Alternative scenario: Achieving a 75% employment rate

		2019	2020	2021	2022	2023	2023 level and difference (%)
% change on previous year, unless otherwise specified							
GDP	Baseline forecast	1.6	1.5	1.3	1.1	1.3	216,375
	Alternative scenario	1.6	1.8	2.4	2.5	2.6	225,618
	Difference	0.0	0.3	1.1	1.4	1.3	4.3
Imports	Baseline forecast	1.9	1.8	2.6	2.7	2.5	98,120
	Alternative scenario	1.9	2.0	3.2	3.5	3.7	100,850
	Difference	0.0	0.2	0.6	0.9	1.2	2.8
Exports	Baseline forecast	2.8	2.1	2.8	2.6	2.5	95,013
	Alternative scenario	2.8	2.5	4.0	4.3	4.4	99,882
	Difference	0.0	0.4	1.2	1.7	1.8	5.1
Private consumption	Baseline forecast	1.3	1.4	1.4	1.2	1.2	117,646
	vaihtoehtoinen kehitys	1.3	1.5	1.9	1.9	2.0	119,989
	Difference	0.0	0.1	0.4	0.7	0.8	2.0

Private investment	Baseline forecast	2.2	2.0	2.0	2.2	2.0	41,155
	Alternative scenario	2.2	3.1	5.4	5.7	5.4	45,979
	Difference	0.0	1.1	3.4	3.6	3.4	11.7
Employed, change, 1,000 persons	Baseline forecast	22.7	8.0	9.1	2.5	-2.4	2,505
	Alternative scenario	22.7	14.2	31.7	18.7	7.4	2,560
	Difference	0.0	6.2	22.6	16.2	9.7	55
Unemployment rate, %	Baseline forecast	6.5	6.4	6.3	6.6	6.8	6.8
	Alternative scenario	6.5	6.2	5.7	5.6	5.6	5.6
	Difference	0.0	-0.1	-0.6	-0.9	-1.2	-1.2
Employment rate, aged 15–64, %	Baseline forecast	72.5	72.9	73.3	73.5	73.4	73.4
	Alternative scenario	72.5	73.1	74.2	74.8	75.0	75.0
	Difference	0.0	0.2	0.8	1.3	1.6	1.6

Tags

[Government programme](#), [employment rate](#), [employment target](#), [alternative scenario](#)

Most recent statistical data point to faster-than-expected moderation of economic growth

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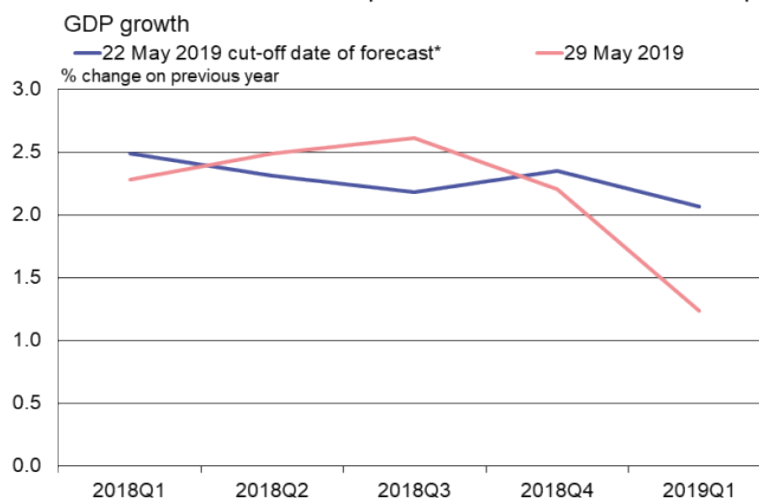
According to the most recent quarterly national accounts, GDP in the first quarter of 2019 grew 0.2% quarter-on-quarter and 1.2% year-on-year. Growth was notably weaker than suggested by preliminary data. In addition, revisions to historical data pushed down the growth estimate for the end of 2018. Economic growth appears to be slowing more rapidly than previously anticipated.



According to the most recent quarterly national accounts, GDP in the first quarter of 2019 grew 0.2% quarter-on-quarter, which was notably less than suggested by the GDP flash estimate (0.6%). The quarterly national accounts data was published on 29 May 2019 and is not taken into account in the Bank of Finland's summer 2019 forecast. The year-on-year growth rate for the first quarter of 2019 slowed to 1.2% from the 2.2% suggested by the flash estimate (Chart 1). Due to this moderation, Finnish GDP growth fell below the euro area average, which for the first quarter of the year was 0.4%.

Chart 1.

Most recent national accounts point to weaker economic developments



* The forecast takes into account statistical and indicator data published prior to 22 May 2019.
Sources: Statistics Finland and calculations by the Bank of Finland.

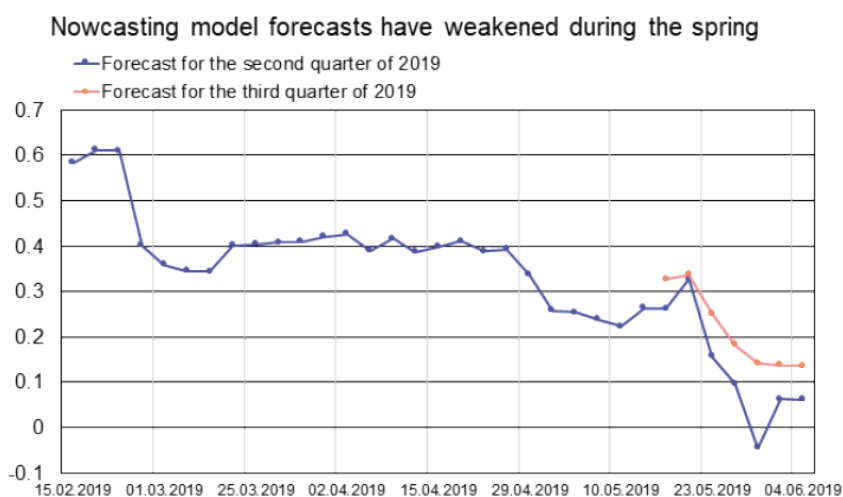
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The national accounts data presently signal weaker economic growth for the turn of the year than the data used for the Bank of Finland forecast. If the data revisions for 2018 and the new quarterly national accounts for the first quarter of 2019 were taken into account, GDP growth for 2019 would be in the range of 1.0–1.5% instead of the currently forecast 1.6%.

The [nowcasting model](#) foresees slow growth also for the second and third quarters of the year. At present (4 June 2019), the model forecasts a clear deceleration for the second quarter, and during the spring the forecast has weakened significantly (Chart 2) as new data has become available. At the end of February, the forecast weakened in response to a deterioration of confidence among consumers and the industrial and construction sectors as well as more sluggish world trade and lower confidence among German companies. In April–May, in turn, the growth forecast weakened due to a further decline in confidence figures (both in Finland and in the United States) and a fall in the capacity utilisation rate.

The most recent substantial deterioration in the growth forecast for the second quarter of 2019 produced by the nowcasting model was at the end of May, when the growth forecast fell to around zero on account of the weaker employment figures, capacity utilisation rate and German corporate sector confidence. The aforementioned new quarterly national accounts data notably depressed the growth outlook for the first quarter of the year, which in the nowcasting model, in turn, was reflected positively in the outlook for the second quarter, the data lowering the first quarter’s reference level.

Chart 2.



Sources: Statistics Finland and calculations by the Bank of Finland.

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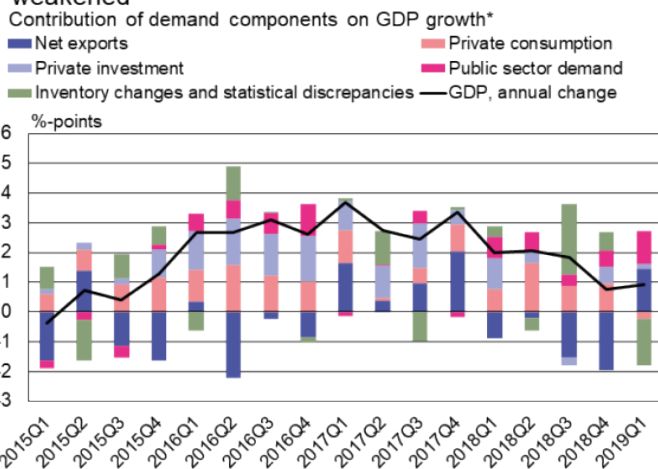
For the third quarter of 2019, the nowcasting model currently (4 June 2019) foresees only slightly stronger growth than for the second quarter of the year. The model's forecast accuracy is, however, weaker for the next quarter than for the current one. The growth forecasts for the second and the third quarters have gained support at the end of May from construction sector figures and better-than-expected confidence data.

Net exports strong, inventories smaller

Exports grew in the first quarter of 2019 by 3.0% quarter-on-quarter. Imports, in turn, contracted steeply, by 5.7% from the previous quarter. Net exports were strong. However, the brisk growth in exports largely reflects cruise ship deliveries. A large contraction in inventories compensated for the contribution of strong exports to GDP growth (Chart 3).

Chart 3.

Net exports grew significantly, inventories contracted and demand weakened



Sources: Statistics Finland and calculations by the Bank of Finland.

* The calculation is merely indicative.

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Private consumption growth was much weaker than expected, with consumption decreasing by 1.2% on the previous quarter. Private investment growth remained modest, too. Housing construction continued to grow slightly, but investment in machinery and equipment decreased. Private investment was 0.7% up quarter-on-quarter and only 0.8% up year-on-year. Public consumption expenditure, in turn, increased strongly, by 2.7% on the previous quarter. On the other hand, public investment decreased steeply both quarter-on-quarter and year-on-year.

Value added grew in several sectors

The volume of value added in the first quarter of 2019 grew 0.5% quarter-on-quarter and 1.5% year-on-year. Manufacturing value added increased 2.3% on the previous quarter. Of the various manufacturing subsectors, only the forest industry saw a decline in value added. Of all the sectors, electrical engineering and electronics grew particularly strongly. In financial and insurance activities, in turn, the volume of value added contracted markedly.

Employment growth is clearly slowing. The number of persons employed remained unchanged on the previous quarter and rose 1.5% year-on-year. Similarly, the number of hours worked remained unchanged quarter-on-quarter and increased 1.2% year-on-year.

Finnish economic growth has slowed more rapidly than previously anticipated. The most recent statistical data suggest that uncertainty about near-term economic developments in Finland has increased further. The information produced by the nowcasting model has weakened markedly during the spring.

Tags

[nowcasting](#), [national accounts](#)

What factors influence house prices and residential construction?

TODAY 1:00 PM • BANK OF FINLAND BULLETIN 3/2019 • ECONOMIC OUTLOOK



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The favourable momentum on the Finnish housing market in recent years is gradually fading. In order to understand housing market cycles, it is important to identify what factors drive movements in house prices and construction. Recognising the significance of different supply and demand factors in driving the housing market also has important implications for both macroprudential and fiscal policy. Shifts in demand are observed to have a determining role in shaping the housing market cycle. In recent years rising demand has fuelled residential investment growth and house prices. Positive supply developments have, in turn, bolstered housing investment while at the same time mitigating price growth significantly.



The Finnish housing market has been buoyed by favourable economic conditions and low interest rates in recent years; however, the first signs of change are already apparent in the decline in the number of housing starts and building permits issued for new blocks of flats. Residential investment growth is projected to slow considerably in the future, as the pace of new-build construction declines. Regional housing market disparities between growth centres, such as Helsinki, and the rest of Finland are also substantial. In order to understand the housing market's upturn in recent years, as well as describe its emerging

developments, it is important to first identify the factors that have contributed to movements in the construction cycle and in house prices. Recognising the significance of different supply and demand factors in driving the housing market also has important implications for both macroprudential and fiscal policy.

This article examines the impact of supply and demand on the Finnish housing market and decomposes their effects using a time series model. Shifts in demand are observed to have a determining role in shaping the housing market cycle. In recent years, rising demand has fuelled residential investment growth and house prices. Positive supply developments have, in turn, supported housing investment while at the same time mitigating price growth significantly.

The housing market amplifies economic cycles

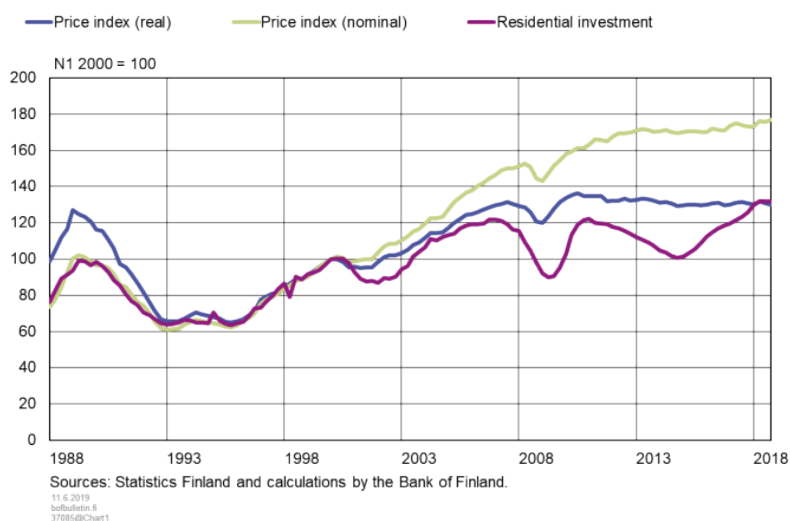
The positive momentum on the Finnish housing market has continued for a few years now. Residential investment volumes in particular – and hence housing starts and completions – have grown sharply and reached new heights (Chart 1). However, the volume of housing starts has begun to decline markedly, especially outside the Helsinki region. In addition, sales of existing homes also appear to have declined across the whole country. The recent downward turn in construction is already affecting the industry's employment level, which has begun to descend from its peak. Nominal prices^[1] of existing homes have continued to rise, albeit at a relatively listless pace for quite some time now. In real terms^[2], however, house prices have remained stagnant since 2010. Price developments have also varied widely by region. While real house prices have, as a rule, increased in Helsinki and other growth centres, the opposite is true for a large portion of the country. As a result, the housing market is characterised by considerable regional disparities not only between e.g. the Helsinki metropolitan area or other growth centres and the rest of Finland, but also within these areas themselves.

1. This article uses nominal prices unless otherwise specified.

2. Statistics Finland's real price index, where the nominal price index is divided by the consumer price index.

Chart 1.

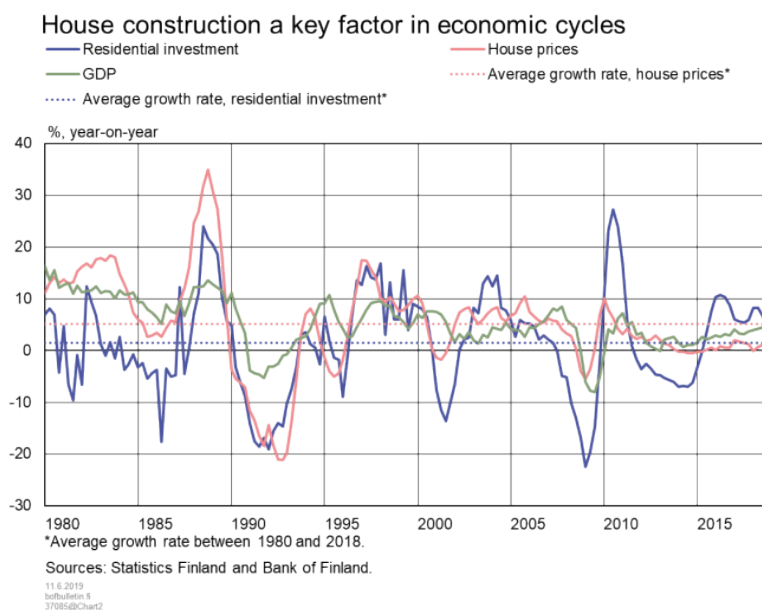
Investment and nominal house prices record high



House construction has often proved to be an important driver of business cycles in the Finnish economy. Indeed, cyclical developments in residential construction and house prices, although prone to quick fluctuations, do rather well in approximating more aggregate movements in the economic cycle (Chart 2). As a result, understanding the factors that contribute to the dynamics of the housing market, and the closer analysis of these factors, has important implications both for business cycles and for macroprudential policy.

Residential investment accounts for 35% of total private investment (incl. renovation work) and has a GDP ratio of 6%. However, fluctuations in residential investment are considerably greater than in GDP, and their indirect impact on economic growth is significant. House price growth has been moderate, remaining at a pace below its long-term average each year since the financial crisis (Chart 2). Residential investment, in turn, has in recent years grown at a pace well above trend. Investment growth is projected to slow down considerably in future, however, as the pace of new-build construction declines ([Slowing growth in the shadow of global uncertainties](#)).

Chart 2.



The housing market interacts with many different areas of the economy and has an important influence on the economic cycle, as expectations concerning the housing market affect the investment decisions of firms and consumption decisions of households.

Home-ownership is the preferred form of accommodation in Finland, which raises the housing market's position in the aggregate economy. Consequently, the performance of the housing market is strongly tied to changes in households' levels of wealth. House price movements have an immediate impact on household wealth and market rents and thus affect households' purchasing power and private consumption. The decisions taken by households concerning housing are strongly correlated and are influenced by e.g. the state of the housing market and macroprudential policy. Consequently, the housing market channels and amplifies the economic cycle and affects the stability of the entire financial system. Hence changes in the housing market cycle are felt throughout the broader economy, while at the same time developments in the aggregate economy and on the financial markets are also reflected on the housing market.

Table 1.
Economic indicators before the onset of the financial crisis and thereafter

	1989–2008	2009–2018
House prices	3,0	1,6
Real house prices*	0,8	0,4
Wages (index of wage and salary earnings)	4,1	2,1
Working age population (aged 20–64)	0,3	–0,2
Real interest rate (%)**	4,1	–0,5
Housing starts (number per year)***	13 278	21 080
Residential investment	1,2	2,1
GDP	2,6	0,3

Unless otherwise specified, all the figures above are average annual growth rates.

* Statistics Finland's real price index, where the nominal price index is divided by the consumer price index.

** 12 month Euribor minus consumer price inflation.

*** Blocks of flats. Data available from 1995 onwards.

House prices are determined by supply and demand

Equilibrium on the housing market is reached when households' demand for house purchase intersects with the supply of available housing financed by investors. Supply and demand affect the housing market in tandem, but their relative and absolute influence on market developments can be expected to rise and fall. To understand the dynamics of the housing market, it is useful to distinguish between the demand factors and supply factors that drive movements in house prices and construction. Often many of these factors can be influenced by appropriate policy actions.

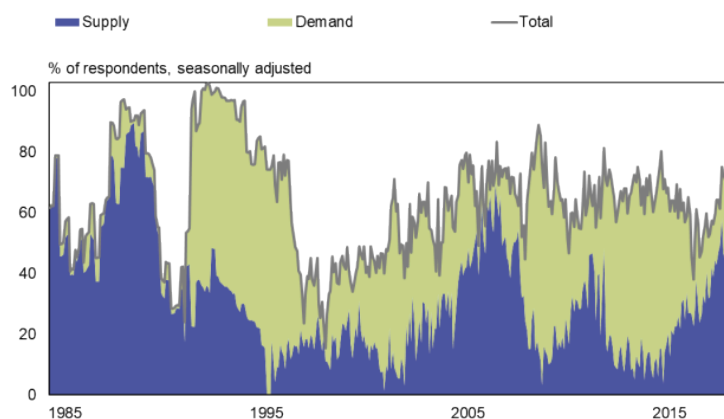
Table 2.
Examples of demand-side and supply-side factors

Demand-side factors	Supply-side factors
Demographic change	Zoning and availability of building land
Macroprudential policy	Building codes
Financing conditions	Financing conditions
Tax/fiscal policy (e.g. interest expense deductions, transfer tax)	Fiscal policy (i.e. increasing interest subsidy loans and taxing building land)
Expectations concerning the economic outlook and appreciation of housing (e.g. investor demand)	Availability of skilled labour in the construction sector (e.g. training, flow of labour across regions and countries)
	Construction sector competition
	Construction sector productivity

Several different factors can be identified that influence supply and demand, some of which are easier to observe than others (Table 2). Moreover, some of these factors may influence both supply and demand at the same time. Such factors include general financing conditions, for example the availability of finance and interest rate levels. According to the European Commission’s Construction Confidence Indicator, supply-side factors have recently proven a larger bottleneck in the construction sector than demand-side factors.

Chart 3.

Supply bottlenecks a growing constraint in the construction sector



Demand refers to the proportion of survey respondents who specified production as being constrained by insufficient demand. Supply refers to the proportion of respondents who did not specify demand as being a constraint, or who did not respond that there were no constraints.

Source: European Commission.

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Labour shortages point to a tightening housing market

Residential investment is highly affected by municipal zoning rules and changes in the availability of building land. For example, municipalities may choose to expand their residential zones – if suitable land is available – and in this way support the construction of new homes. Changing building regulations and taxing land suitable for construction may have effects that increase or reduce supply. In addition, interest rate levels and the availability of finance also effect the decisions of consumers and companies alike. Bottlenecks in the availability of labour may slow down the construction of new homes. Similarly, productivity changes in the construction sector may influence the production of housing, especially over the long term. Increasing competition in the construction sector, in turn, reins in house prices and boosts production. Fiscal policy can also be used to influence the attractiveness of new-build construction, for example by changing the interest subsidy system.

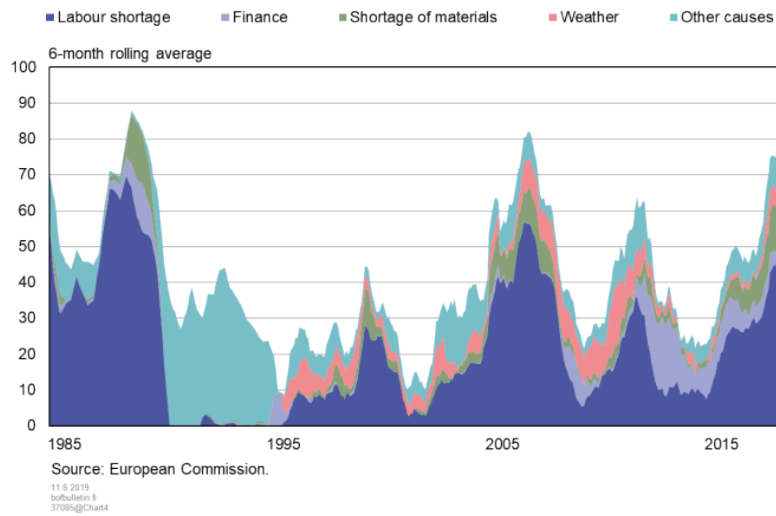
Several supply-side factors in particular have a significant bearing on building costs, which in turn influence the price level of housing and its development. Weak productivity raises the costs of construction, which eventually also results in higher purchase prices for new homes. Likewise, stricter building regulations raise the costs of construction and ultimately affect the prices of new housing. Full employment in the construction sector and labour shortages increase wage drift, thereby raising construction costs. These additional costs risk being passed on to homebuyers as higher house prices.

The aforementioned effects do not imply that the construction costs of any given new-build unit will materially affect its sales price – which is in fact determined by the market's prevailing price level. Instead, construction costs influence which of the many potential building projects are profitable at the prevailing price level. Accordingly, as construction costs influence the volume of housing production over time, they also ultimately affect the prevailing price level.

The impact of different supply factors can in part be gauged with the European Commission's Construction Confidence Indicator, which is based on a survey where builders may specify factors limiting production. In recent times, supply-side constraints have become increasingly important, especially as labour shortage problems intensify. On the other hand, issues in the availability of labour together with the construction sector's high employment level and large number of housing starts all point towards a building industry in robust health. The labour squeeze can be expected to ease going forward, as employment growth in the construction industry and approvals of construction permits have begun to decline. Financial factors have not been a significant constraint on supply in recent times. Overall, the supply of housing is characterised by a degree of rigidity, which is to say that supply-side factors are slower to affect the housing market than demand-side factors. For instance, improving the availability of skilled workers can take several years, effectively the entire duration of a training programme.

Chart 4.

Survey responses indicate labour shortages are single greatest current constraint on construction output



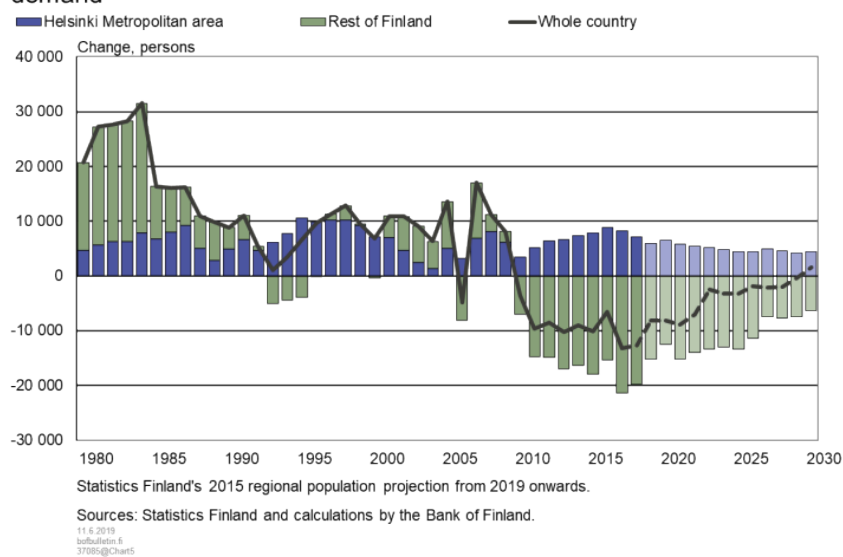
Demographic change key in shaping future demand

Several demand-side factors that influence the housing market can also be identified. Demographic change – in particular over the long term – not only shapes the aggregate demand for housing but also influences the type of housing option preferred. For example, population ageing may increase demand for small houses and flats in favour of larger dwellings, especially farther away from services. On the other hand, growth in the working-age population (20 to 64-year-olds) bolsters housing demand. In the Helsinki metropolitan area this cohort is expected to continue to grow through the next decade (Chart 5). Migration changes regional demand and has led to a clear divergence between Helsinki and the rest of Finland: the working-age population outside the greater Helsinki area will continue to decline even at the end of the 2020s.^[3] Thus, demographic change will continue to raise demand for housing in the Helsinki metropolitan area, as well as in other growth centres, also through the next decade.

3. The working-age population is also projected to grow in other growth centres such as Oulu, Tampere and Turku. Demographic projections for the rest of Finland have not been analysed in detail. Regional differences are thus possible.

Chart 5.

Working-age population in the greater Helsinki area growing and fuelling demand



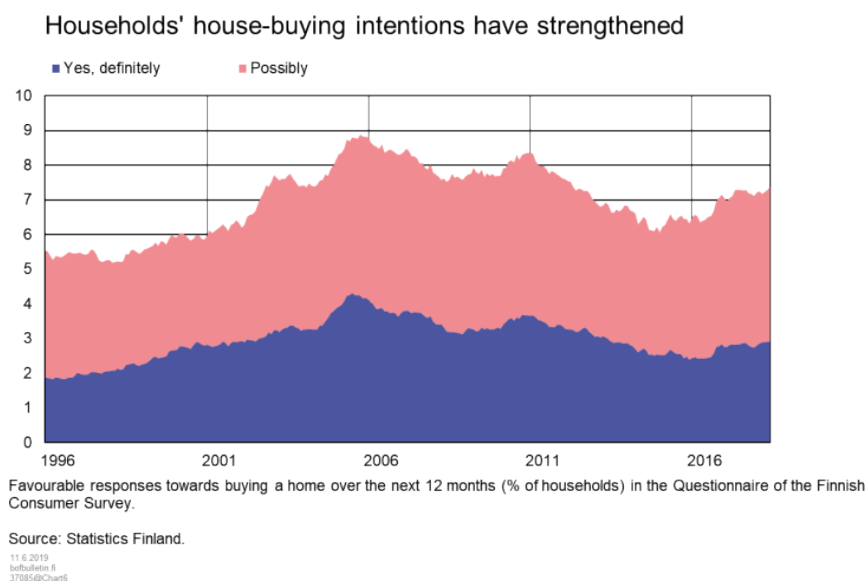
Monetary policy, housing loan reference rates, and other conditions attached to a housing loan affect housing demand by changing the cost of borrowing for house purchase. In recent years, housing market demand has been buoyed by low borrowing costs. Interest rates are expected to remain low in the near future, strengthening the demand outlook. In addition, taxation can be used to influence the housing market. For instance, home mortgage deductions or transfer taxes may be adjusted. For example, a transfer tax will raise the transaction costs associated with moving house and thus reduce housing demand.

Macroprudential policy has been toolled to rein in excessive household borrowing after the financial crisis, with effect on housing demand. The loan-to-value cap on housing loans was lowered to 85% for non-first time buyers as of summer 2018.^[4]

Demand-side bottlenecks can be assessed, for example, by looking at Statistics Finland's Consumer Confidence Indicators. As part of the Indicator's underlying survey, consumers are asked to describe their intentions of buying a home within the next twelve months (Chart 6). Over the past few years the number of households inclined towards buying a home has grown, although these figures have not yet matched their pre-crisis levels. This complements the responses to the Construction Confidence Indicator, according to which demand has not constrained property investment in recent years.

4. Further information on macroprudential decisions can be found on the FIN-FSA [website](#).

Chart 6.



Housing market dynamics can be assessed with time series modelling

The complex interplay between supply and demand on the housing market can be analysed using time series models. Informed estimates can thus be made regarding the relative effects of different supply and demand factors in determining movements in house prices and residential investment.^[5] Because both supply factors and demand factors affect the housing market simultaneously, evaluating their relative effects without a model framework is difficult. To address this, a structural vector autoregressive (SVAR) model is used.^[6] In the model, supply and demand factors are separated with sign restrictions, i.e. the direction in which supply and demand factors affect house prices and residential investment is defined in advance.

The sign restrictions are determined by how we expect supply and demand to influence house prices and construction volumes. Demand factors lead to positive co-movement between house prices and construction. This means that an increase in demand – because of, say, lower interest rates – raises both house prices and the volume of construction. Declining demand, in turn, lowers house prices and reduces construction. Correspondingly, supply factors lead to negative co-movement. Raising supply, say by expanding residential zoning, weakens price growth but raises production. On the other hand, reducing supply raises prices, which results in lower demand. The sign restrictions are illustrated in Table 3.

5. A similar model-based approach is used in the ECB article: [The state of the housing market in the euro area](#).

6. Structural Vector Autoregressive (SVAR) model. For further detail on SVAR models see e.g. Lütkepohl (2005) and Kilian (2011), and on sign restrictions e.g. Uhlig (2005) and Fry & Pagan (2011).

Table 3.

Supply and demand factors have different effects on prices and construction

The structural VAR model's sign restrictions

	Price	Volume
Demand shock	+	+
Supply shock	-	+

Sign restrictions in effect for four annual quarters.

This type of decomposition only allows for a cursory inspection of demand and supply shocks, as the shocks encompass a broad range of different possible factors, as outlined earlier. Nevertheless, the model provides insight into the significance and relative impact of supply and demand factors in determining house price movements and residential investment flows at different periods of time.

In this article, a two-variable model is used: residential investment and the prices of existing homes. The models are estimated over data ranging from the first annual quarter of 1980 to the last quarter of 2018. The variables represent year-on-year deviations from their long-term averages. In other words, in the case of house prices, this means subtracting the historical average growth rate from the growth rates obtained for each individual year during the data period. House prices have increased at an average annual rate of 5.1% and residential investment at a corresponding rate of 1.4%.

The model's sign restrictions are valid for four annual quarters, which means that demand shocks are shocks whose sum effect on prices and volumes is unilateral for one year. Supply shocks are defined as shocks which result in negative co-movement in price and volume developments for one year.^[7]

There are many indicators that track changes in construction, but because of their strong seasonality and other unpredictable elements residential investment is instead used to represent the flow of new housing in this analysis. Residential investment includes not only new-build construction but also renovation work, but the latter's growth in Finland has remained balanced. Residential investment cycles are largely driven by the fluctuations in new-build construction. Because of a lack of a housing price index which also includes prices of new homes, the analysis is based on a price index for existing housing.^[8] As a result, the analysis is based on the implicit assumption of positive co-movement in the growth of new and old homes.

7. The structural vector autoregressive (SVAR) model contains two lags. 10,000 models are estimated from the panel and a representative model is selected. The representative model is the model closest to the median of the impulse responses of all the approved models.

8. The conclusions remain effectively unchanged if real prices are examined instead of the nominal price index. As expected, fluctuations on the housing market are driven by the same factors, irrespective of whether prices are measured in nominal or real terms.

Demand an important driver of the housing market

Our modelling suggests that demand factors have played a prominent role in driving movements on the Finnish housing market. The relative impact of both supply and demand in influencing residential investment and house prices are illustrated in Charts 7 and 8. The annual growth in prices and investment has been decomposed into their demand and supply elements for each annual quarter, the sum of which equals aggregate growth.

In the chart, aggregate growth is denoted in terms of its deviation from the historical average rate, i.e. the negative annual growth observable in house prices in recent years in fact describes slower-than-average price growth. Residential investment, in turn, has grown at an above-average annual rate in recent years.

In Chart 7 and 8, we can see how demand factors significantly boosted both house prices and investment towards end of the 1980s. The liberalisation of capital markets during this period had a profound impact on raising demand on the housing market. Correspondingly, the fall in demand during Finland's recession in the early 1990s significantly dragged down prices and investment. The model suggests that the recovery from the recession was largely driven by a pick-up in demand, reflected in both house prices and investment.

In the midst of the financial crisis in 2008–2009, weak demand weighed on prices and investment, but faltering supply also cushioned the decline in prices. The recovery of supply and demand in the aftermath of the crisis led to a sharp rise in investment when viewed at a national level. Price growth was slower than average, as price developments were dampened by increased supply. Weak economic growth in the 2010s weighed most especially on demand, reducing investment and pushing down prices.

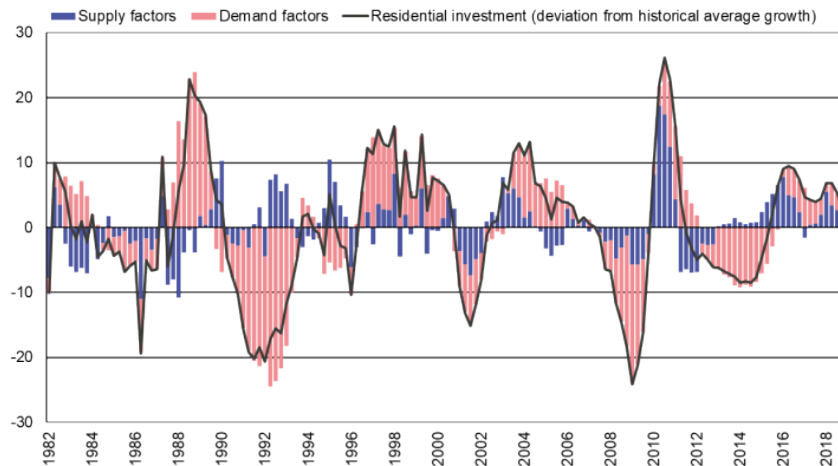
Since 2015, both supply and demand have seen favourable developments on the national level. This has resulted in a strong rise in investment but slower than average price growth. The pick-up in demand corresponds with both the Consumer Confidence Indicator, which revealed greater house-buying intentions (Chart 6), as well as the construction barometer, according to which demand has not proven a constraint on construction investment in recent years.

Looked at historically, the rise in aggregate demand for housing has only had a moderate impact on house prices. Moreover, the effects of demand have been overshadowed by the effects of supply. Indeed, the increase in supply has substantially curbed house price growth. Without the influence of supply factors from the second quarter of 2015 onwards, residential investment would have been 10% lower and the house price index some 30% higher by the fourth quarter of 2018.

Overall, it is fair to say that the comparatively weak growth of house prices after the financial crisis has been driven by a combination of weak demand and strong supply. At the end of the recessions, or immediately afterwards, investments have often received support from supply factors, which may well reflect the effect of fiscal accommodation, among other factors. The low interest rate environment has, for its part, bolstered both supply and demand, and will presumably continue to do so for the foreseeable future.

Chart 7.

Impact of supply and demand factors on residential investment

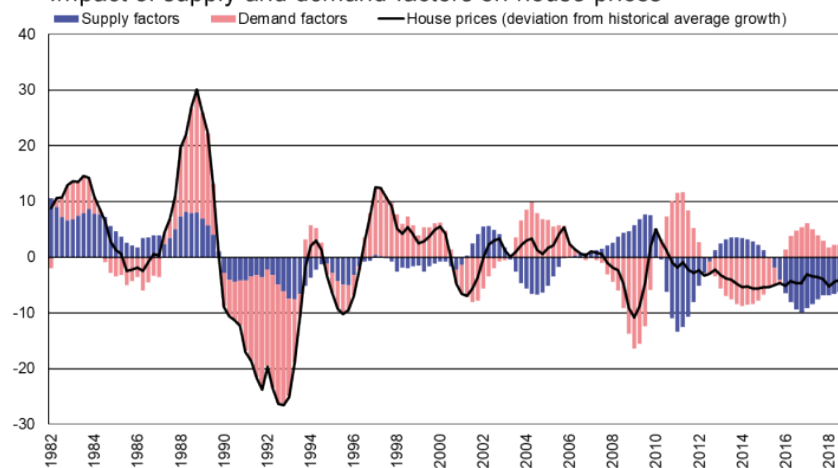


The chart illustrates the SVAR model's decomposition of the impact of supply and demand factors in driving residential investment growth. Summing the impact of supply and demand gives total investment growth, i.e. the deviation from its historical average growth rate. The historical average annual growth rate for residential investment is 1.4%.

Source: Bank of Finland.
11.8.2019
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Chart 8.

Impact of supply and demand factors on house prices



The chart illustrates the SVAR model's decomposition of the impact of supply and demand factors in driving house prices. Summing the impact of supply and demand gives total house price growth, i.e. the deviation from its historical average growth rate. The historical average annual growth rate for house prices is 5.1%.

Source: Bank of Finland.
11.8.2019
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Effects of supply and demand similar across regions

Regional disparities on the housing market between growth centres and other regions can be stark. For example, in recent years the development of prices for existing homes in the Helsinki metropolitan area^[9] has diverged from that in the rest of the country (Chart 8).^[10] Prices have continued to increase in the greater Helsinki area, while having levelled out elsewhere in Finland. Looking at the number of housing starts reveals that

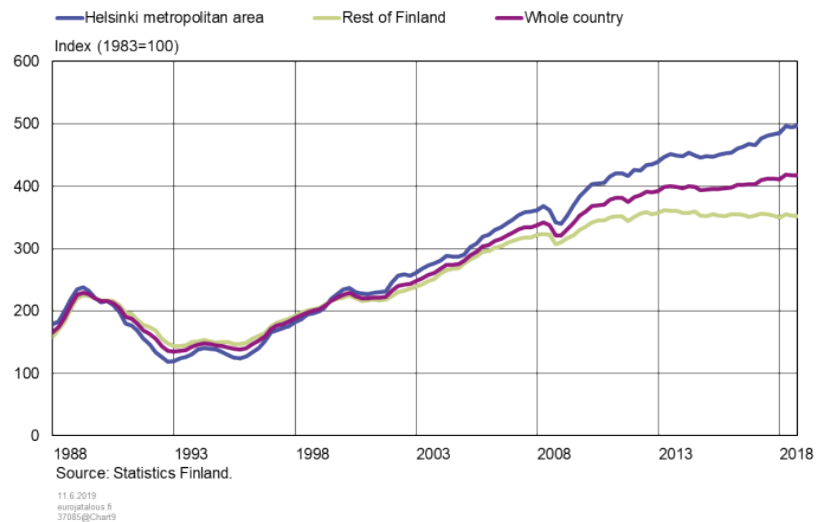
9. Helsinki, Espoo, Vantaa and Kauniainen.

10. Regional disparities are large, especially for the rest of Finland.

starts for new blocks of flats have been on the rise in the whole of Finland since 2015 (Chart 9). Accordingly, this article gives the greater Helsinki area and the rest of Finland separate treatment in examining the effects of supply and demand factors on house prices and housing starts.^[11]

Chart 9.

Flat prices in apartment blocks have begun to diverge by region in recent years

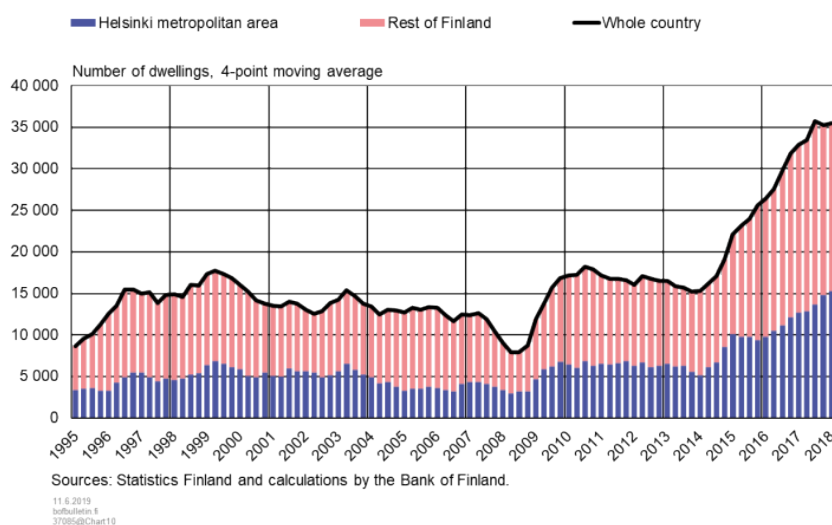


Since the global financial crisis, housing starts for new blocks of flats have risen substantially above their pre-crisis levels. In the Helsinki metropolitan area, housing starts for apartment blocks have been supported by positive developments in both demand and supply factors in recent years, with demand factors becoming increasingly prominent in the past year. Price growth has been at around its average pace – pushed upwards, on one hand, by demand factors, and weighed down, on the other, by supply factors. Supply factors have lowered prices elsewhere in Finland, too, since 2015, while demand factors have moderated this decline.

11. The number of housing starts has been chosen as a variable for housing production. Because of the large fluctuations in the number of housing starts, the variables are adjusted by taking their variable annual sums. Both the prices and the number of housing starts are for flats. With regional variables, the estimates are calculated from 1995 onwards, as this is the earliest period with available housing start data.

Chart 10.

Sharp increase in starts for new apartment blocks



Housing starts, in turn, have increased at an above-average pace, having been bolstered by both supply and demand factors. However, a softening of demand in late 2018 took its toll on prices and housing starts outside the greater Helsinki area. The regional divergence in price growth is largely explained by favourable longer-term developments on the supply side of housing market, and in particular by the weak growth of demand outside the greater Helsinki area over the past year. In light of Statistics Finland's population projection (Chart 5), demand factors are likely to prove a drag on the housing market, except for growth centres, in the immediate years to come.

Increased supply has constrained price growth

Housing market cycles are influenced by both supply and demand factors, which include financing conditions, macroprudential policy, fiscal policy, building industry competition, and zoning rules. Without a time series model, however, it is difficult to disentangle the relative importance of supply and demand on movements in house prices and residential investment.

In particular, the time series model estimated from house prices and residential investment highlights the importance of demand in driving housing market developments. In the past few years demand has begun to pick up again. This has encouraged residential investment and the growth of house prices. However, a simultaneous rise in supply has curbed price developments significantly. This has resulted in slower-than-average price growth, but a strong increase in residential investment.

The divergence of prices between the Helsinki metropolitan area and the rest of Finland is explained by favourable longer-term developments on the supply side of the housing market, and in particular by the weak growth of demand outside the greater Helsinki area over the past year. This has depressed prices much more in the rest of the country

than it has done in the Helsinki area.

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Tags

[construction](#), [house prices](#), [housing markets](#)

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FORECAST TABLES

Forecast tables for 2019–2021 (June 2019)

11 JUN 2019 11:00 AM • BANK OF FINLAND BULLETIN 3/2019 • ECONOMIC OUTLOOK

See forecast tables for the Finnish economy in 2019–2021.

June 2019

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

% change on previous year

	2017	2018	2019 ^f	2020 ^f	2021 ^f
GDP at market prices	2.7	2.3	1.6	1.5	1.3
Imports of goods and services	3.8	4.2	1.9	1.8	2.6
Exports of goods and services	7.7	1.5	2.8	2.1	2.8
Private consumption	1.5	1.4	1.3	1.4	1.4
Public consumption	-0.4	1.4	0.4	0.6	0.1
Private fixed investment	4.8	3.3	2.2	2.0	2.0
Public fixed investment	2.4	3.0	0.3	0.1	1.5

Source: Bank of Finland.

2. CONTRIBUTIONS TO GROWTH¹

	2017	2018	2019 ^f	2020 ^f	2021 ^f
GDP, % change	2.7	2.3	1.6	1.5	1.3
Net exports	1.4	-1.0	0.3	0.1	0.1
Domestic demand excl. inventory change	1.7	1.8	1.2	1.2	1.2
of which Consumption	0.7	1.1	0.8	0.9	0.8
Investment	0.9	0.7	0.4	0.4	0.4
Inventory change + statistical discrepancy	-0.4	1.6	0.0	0.1	0.0

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

Source: Bank of Finland.

3. BALANCE OF SUPPLY AND DEMAND, PRICE DEFLATORS

Index 2010 = 100, and % change on previous year

	2017	2018	2019 ^f	2020 ^f	2021 ^f
GDP at market prices	113.2	115.4	117.5	119.6	122.1
	0.9	1.9	1.8	1.8	2.1
Imports of goods and services	101.8	105.4	105.6	108.0	110.1
	3.4	3.5	0.2	2.2	2.0
Exports of goods and services	104.4	108.6	109.2	111.5	113.7
	3.3	4.0	0.6	2.1	2.0
Private consumption	111.8	113.3	114.7	116.1	118.0
	0.6	1.3	1.2	1.3	1.6
Public consumption	112.3	114.1	116.8	120.4	124.6
	0.3	1.6	2.4	3.1	3.4
Private fixed investment	112.4	115.4	118.1	120.6	122.9
	1.6	2.7	2.3	2.1	1.9
Public fixed investment	112.1	115.6	117.4	120.3	122.5
	1.0	3.1	1.6	2.5	1.8
Terms of trade (goods and services)	102.5	103.0	103.4	103.3	103.3
	-0.1	0.4	0.4	-0.1	0.0

Source: Bank of Finland.

4. BALANCE OF SUPPLY AND DEMAND, AT CURRENT PRICES

EUR million and % change on previous year

	2017	2018	2019 ^f	2020 ^f	2021 ^f
GDP at market prices	223,892	233,555	241,574	249,589	258,088
	3.6	4.3	3.4	3.3	3.4
Imports of goods and services	85,577	92,329	94,303	98,091	102,606
	7.3	7.9	2.1	4.0	4.6
Total supply	309,469	325,884	335,877	347,680	360,694
	4.6	5.3	3.1	3.5	3.7
Exports of goods and services	86,228	91,005	94,095	98,041	102,735
	11.3	5.5	3.4	4.2	4.8
Consumption	172,992	177,888	182,562	188,001	194,047
	1.4	2.8	2.6	3.0	3.2
Private	121,513	124,844	128,037	131,461	135,491
	2.1	2.7	2.6	2.7	3.1
Public	51,479	53,044	54,525	56,540	58,556
	-0.1	3.0	2.8	3.7	3.6
Fixed investment	49,591	52,603	54,740	56,838	59,011
	5.9	6.1	4.1	3.8	3.8
Private	40,434	42,880	44,834	46,682	48,514
	6.4	6.0	4.6	4.1	3.9
Public	9,157	9,723	9,906	10,156	10,498
	3.5	6.2	1.9	2.5	3.4
Inventory change + statistical discrepancy	658	4,388	4,480	4,800	4,900
% of previous year's total demand	-0.1	1.2	0.0	0.1	0.0
Total demand	309,469	325,884	335,877	347,680	360,694

4. BALANCE OF SUPPLY AND DEMAND, AT CURRENT PRICES

	4.6	5.3	3.1	3.5	3.7
Total domestic demand	223,241	234,879	241,782	249,639	257,959
	2.3	5.2	2.9	3.2	3.3

Source: Bank of Finland.

5. BALANCE OF SUPPLY AND DEMAND

% of GDP at current prices

	2017	2018	2019 ^f	2020 ^f	2021 ^f
GDP at market prices	100.0	100.0	100.0	100.0	100.0
Imports of goods and services	38.2	39.5		39.3	39.8
Exports of goods and services	38.5	39.0	39.0	39.3	39.8
Consumption	77.3	76.2	39.0	75.3	75.2
Private	54.3	53.5	75.6	52.7	52.5
Public	23.0	22.7	53.0	22.7	22.7
Fixed investment	22.1	22.5	22.6	22.8	22.9
Private	18.1	18.4	22.7	18.7	18.8
Public	4.1	4.2	18.6	4.1	4.1
Inventory change + statistical discrepancy	0.3	1.9	4.1	1.9	1.9
Total demand	138.2	139.5	1.9	139.3	139.8
Total domestic demand	99.7	100.6	139.0	100.0	99.9

100.1Source: Bank of Finland.

6. PRICES

Index 2010 = 100, and % change on previous year

	2017	2018	2019 ^f	2020 ^f	2021 ^f
Harmonised index of consumer prices, 2005 = 100	101.2	102.4	103.8	105.2	106.8
	0.8	1.2	1.3	1.4	1.6
Consumer price index, 2005 = 100	101.1	102.3	103.6	105.1	106.7
	0.8	1.1	1.3	1.4	1.6
Private consumption deflator	111.8	113.3	114.7	116.1	118.0
	0.6	1.3	1.2	1.3	1.6
Private investment deflator	112.4	115.4	118.1	120.6	122.9
	1.6	2.7	2.3	2.1	1.9
Exports of goods and services deflator	104.4	108.6	109.2	111.5	113.7
	3.3	4.0	0.6	2.1	2.0
Imports of goods and services deflator	101.8	105.4	105.6	108.0	110.1
	3.4	3.5	0.2	2.2	2.0
Value-added deflators					
Value-added, gross at basic prices	113.5	116.0	118.0	120.7	123.4
	1.2	2.2	1.7	2.3	2.2

Source: Bank of Finland.

7. WAGES AND PRODUCTIVITY

% change on previous year

	2017	2018	2019 ^f	2020 ^f	2021 ^f
Whole economy					
Index of wage and salary earnings	0.2	1.7	2.4	2.8	2.4
Compensation per employee	-1.2	1.3	1.5	2.9	2.3
Unit labour costs	-2.7	1.6	0.7	1.8	1.4
Labour productivity per employed person	1.5	-0.3	0.7	1.1	0.9

Source: Bank of Finland.

8. LABOUR MARKET

1,000 persons and % change on previous year

	2017	2018	2019 ^f	2020 ^f	2021 ^f
Labour force survey (15–74-year-olds)					
Employed persons	2,474	2,538	2,560	2,570	2,582
	1.1	2.6	0.9	0.4	0.4
Unemployed persons	234	202	177	175	173
	-0.9	-13.8	-12.2	-1.3	-1.3
Labour force	2,708	2,740	2,737	2,745	2,754
	0.9	1.2	-0.1	0.3	0.3
Working-age population (15–64-year-olds)	3,451	3,439	3,431	3,423	3,417
	-0.3	-0.4	-0.2	-0.2	-0.2
Labour force participation rate, %	65.8	66.4	66.3	66.6	67.0
Unemployment rate, %	8.6	7.4	6.5	6.4	6.3
Employment rate (15–64-year-olds), %	69.6	71.7	72.5	72.9	73.3

Source: Bank of Finland.

9. GENERAL GOVERNMENT REVENUE, EXPENDITURE, BALANCE AND DEBT

	2016	2017	2018 ^f	2019 ^f	2020 ^f
% of GDP					
General government revenue	53.4	52.5	51.9	52.0	51.8
General government expenditure	54.2	53.1	52.4	52.3	52.1
General government primary expenditure	53.2	52.2	51.7	51.6	51.5
General government interest expenditure	1.0	0.9	0.7	0.6	0.6
General government net lending	-0.8	-0.7	-0.5	-0.2	-0.3
Central government	-1.8	-1.2	-0.8	-0.7	-0.6
Local government	-0.2	-0.8	-0.8	-0.7	-0.7
Social security funds	1.2	1.3	1.1	1.1	0.9
General government primary balance	0.2	0.3	0.2	0.4	0.2
General government structural balance ¹	-0.7	-0.8	-0.9	-0.4	-0.5
General government debt (consolidated, EDP)	61.3	58.9	58.5	57.9	57.2
Central government debt	47.2	44.9	44.3	43.5	42.6
Tax ratio	43.3	42.3	42.0	42.2	41.9
Current prices, EUR billion					
General government net lending	-1.8	-1.3	-1.2	-0.5	-0.9
Central government	-4.1	-2.7	-1.9	-1.6	-1.4
Local government	-0.4	-1.8	-2.0	-1.6	-1.7
Social security funds	2.7	3.2	2.7	2.7	2.3
General government debt (consolidated, EDP)	137.3	137.5	141.4	144.6	147.7

¹The structural balance has been calculated using the methodology of the European Commission.

Source: Bank of Finland.

10. BALANCE OF PAYMENTS

EUR billion

	2017	2018	2019 ^f	2020 ^f	2021 ^f
Exports of goods and services (SNA)	86.2	91.0	94.1	98.0	102.7
Imports of goods and services (SNA)	85.6	92.3	94.3	98.1	102.6
Goods and services account (SNA)	0.7	-1.3	-0.2	-0.1	0.1
% of GDP	0.3	-0.6	-0.1	0.0	0.1
Investment income and other items, net (+ statistical discrepancy)	0.7	-0.7	1.0	1.0	1.0
Current transfers, net	-2.1	-2.4	-2.5	-2.6	-2.7
Current account, net	-0.7	-43.6	-1.7	-1.6	-1.6
Net lending, % of GDP					
Private sector	0.5	-1.3	-0.2	-0.4	-0.3
Public sector	-0.8	-0.6	-0.5	-0.2	-0.3
Current account, % of GDP	-0.3	-1.9	-0.7	-0.7	-0.6

Source: Bank of Finland.

11. INTEREST RATES

%

	2017	2018	2019 ^f	2020 ^f	2021 ^f
3-month Euribor ¹	-0.3	-0.3	-0.3	-0.3	-0.2
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	1.4	1.3	1.3	1.4	1.4
Average interest rate on the stock of deposits ³	0.1	0.1	0.1	0.1	0.2
Yield on Finnish 10-year government bonds ¹	0.5	0.7	0.3	0.5	0.6

¹ Technical 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

	2017	2018	2019 ^f	2020 ^f	2021 ^f
GDP, % change on previous year					
World	3.6	3.6	3.3	3.4	3.3
USA	2.2	2.9	2.5	2.0	1.8
Euro area	2.5	1.9	1.7	1.7	1.5
Japan	1.7	0.9	1.0	0.1	0.7
Imports, % change on previous year					
World	5.2	4.7	3.7	3.7	3.9
USA	4.6	4.7	4.1	3.2	2.9
Euro area	4.1	2.7	4.2	4.2	3.6
Japan	3.5	2.7	2.3	1.8	2.3
Index, 2010 = 100, and % change on previous year					
Import volume in Finnish export markets	128.6	133.0	135.5	139.3	143.8
	5.9	3.5	1.9	2.8	3.2
Export prices of Finland's competitors (excl. oil), in national currencies	109.7	115.4	119.0	122.2	125.1
	3.3	5.2	3.1	2.7	2.4
Export prices of Finland's industrial competitors (excl. oil), in euro	104.9	106.3	110.0	112.8	115.5
	2.9	1.4	3.4	2.6	2.4
Industrial raw materials (excl. energy), HWWA index, in US dollars	118.2	124.8	117.6	119.5	122.8
	21.5	5.6	-5.8	1.6	2.7
Oil price, USD per barrel ¹	54.4	71.1	68.1	65.7	62.6
	23.5	30.6	-4.2	-3.5	-4.7
Finland's nominal competitiveness indicator ²	103.6	107.5	107.2	107.3	107.3

12. INTERNATIONAL ENVIRONMENT

	0.3	3.8	-0.3	0.1	0.0
US dollar value of one euro	1.13	1.18	1.12	1.12	1.12
	2.1	4.5	-4.8	-0.4	0.0

¹ Technical assumption derived from market expectations.

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

Source: Bank of Finland.

13. CURRENT AND DECEMBER 2018 FORECAST

	2018	2019 ^f	2020 ^f	2021 ^f
GDP, % change	2.3	1.6	1.5	1.3
December 2018	2.7	1.9	1.7	1.4
Inflation (HICP), %	1.2	1.3	1.4	1.6
December 2018	1.2	1.3	1.6	1.7
Current account, % of GDP	-1.9	-0.7	-0.7	-0.6
December 2018	-0.9	0.0	0.1	0.1
General government net lending, % of GDP	-0.7	-0.5	-0.2	-0.3
December 2018	-0.9	-0.7	-0.3	-0.3
General government debt (EDP), % of GDP	58.9	58.5	57.9	57.2
December 2018	59.4	59.0	57.9	57.1
Unemployment rate, %	7.4	6.5	6.4	6.3
December 2018	7.6	7.2	7.1	7.0

Source: Bank of Finland.

Tags

economic situation, forecast, indicators