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Table of Contents

Editorial: Economic policy must live in two time frames at once 3

Forecast: The economy will recover from the pandemic, but even after recovery, growth will be slow 7

The depths of the COVID-19 crisis, and the recovery 35

Assessment of public finances 2020: Attention should already be turned to the post-crisis years 59

Forecast tables for 2020–2023 (December 2020) 72

EDITORIAL

Economic policy must live in two time frames at once

15 Dec 2020 – Bank of Finland Bulletin 6/2020 – Finnish economy

Economic policy in Finland must now find a way to live in two time periods at once. While we are currently combating an acute crisis, we must at the same time direct our thinking strongly towards the economic challenges of the post-crisis years. It is essential to both support businesses, households and economic recovery, while at the same time strengthening the conditions for sustainable, balanced economic growth and improved employment in the years ahead.



Economic policy during the COVID-19 crisis has been a matter of rapid reaction on a broad front both within Finland and across the euro area as a whole. Many people have lost their jobs, and many companies' operations have been severely hampered. Without the rapid and extensive economic policy measures introduced, the economic damage wrought by the pandemic would have been considerably more severe even than those we have actually experienced.

The most important thing has been and still is to effectively mitigate the spread of the pandemic by such means as do not unnecessarily restrict economic activity and people's everyday lives. At the same time, the authorities have given financial support to businesses and households. In addition, central banks and banking and macroprudential supervisors have ensured the availability of finance.

Last spring, the spread of the pandemic even posed the danger of a new financial crisis, but the central banks managed to forestall this by taking rapid and substantial actions.

All in all, the European Central Bank's monetary policy has been strongly supportive of growth during the crisis.

In addition to the euro area's common monetary policy, the Bank of Finland has supported the functioning of the Finnish financial markets through measures at national level. The Bank has purchased Finnish commercial papers in its investment activities and relaxed the collateral requirements for central bank financing.

The central bank has thus responded to both the current crisis and the weak inflation outlook. Inflation has already for several years been mostly below target, and a similar trend is likely for the next few years.

The economic crisis caused by the pandemic is exceptional in the sense that the measures taken to mitigate the spread of the virus and the caution people have exercised have directly restricted output in many sectors of the economy, and especially in private services. Although monetary policy is unable to prevent such effects, it can nevertheless help businesses and households survive the worst phase of the crisis and support the post-crisis economic recovery.

The role of monetary policy in this situation is to continue financial conditions supportive of growth for long enough to support the sprouts of growth and gradually boost inflation, which has been too slow in terms of the price stability objective. Monetary policy and the fiscal policy stimulus are now mutually supportive in the euro area.

To date this year the European Central Bank has succeeded in repelling the threats of a crisis in the financial system and a self-reinforcing deflationary spiral. In Finland, too, monetary policy has supported the economy, and the financial system has managed to operate without serious problems. Together with other economic policy measures, this has prevented realisation of the worst fears from the spring regarding the contraction in the economy and rising unemployment.

Recent weeks have brought positive news on vaccines, which has strengthened expectations that the pandemic will recede during the course of 2021. This news has reduced the threat of a prolongation of the COVID-19 crisis and brightened the outlook for the future.

On the other hand, the health situation and the economic outlook in respect of the winter we are now entering are weak both in the euro area and here in Finland. With the health crisis yet to recede, there remains the risk that the crisis will inflict longer-term damage on employment and productivity. Although there is already light on the horizon, there is still also the threat that banks' loan losses from corporate loans could grow.

The Finnish economy has suffered less in the COVID-19 crisis than most other advanced economies. According to the Bank of Finland forecast, Finland's economy will also recover from the crisis faster than from the international financial crisis of a few years ago. However, after the current crisis our longer-term economic and employment problems will still be the same as before, if more difficult.

According to the forecast, Finland's public debt will grow in 2020 to 68% relative to annual GDP, and the debt ratio will continue to grow in the coming years unless new corrective measures are introduced. Finland's public finances already had a significant sustainability gap prior to the COVID-19 crisis, and now it has simply grown. The new estimate of its size is 5½% of GDP.

The current growth in the public debt is a consequence of the essential measures needed to support the economy. As far as can be discerned at the moment, the economy will still require strong support from the public authorities in 2021. Once the acute crisis is over, however, there will need to be a return to spending limits in order to bring the public finances onto a sustainable footing.

At the same time as the pandemic has been a blow to the public finances and employment, the outlook for labour productivity and investment has also weakened. These were already developing weakly before the crisis, which has simply exacerbated the situation further.

There is now an even greater need for decisions on structural reforms to improve the long-term outlook. Especially with regard to improving employment, most important are reforms that research suggests would make the greatest impact. Another key factor is to improve the conditions for growth in labour productivity.

Regarding productivity growth, there is a major role for research and development work and other output-related investments. Our companies are the motors of productivity growth. Government can enhance the environment in which innovation can take place, and in which innovations made elsewhere can be adopted for use.

There is reason to expect that funding channelled into public research and development will improve the conditions for productivity growth, especially when there are qualified people available to carry out the work. In the overall picture of innovation policy, the development of competences and education policy are, in fact, of major significance. Also important is how easily companies can recruit foreign experts into Finland. Such people will be important both for the innovation process itself and for the emergence of new companies.

A public input into the funding of innovation work may be particularly justifiable during an economic crisis. At such a time, companies will often find it hard to access funding for projects with uncertain returns. At the same time, the need for projects aimed at renewal can be particularly acute, as economic crises are generally followed by restructuring in the economy. The possibilities offered by the EU recovery fund should be exploited for use in such projects with potential long-term benefits.

Competence development and research and development finance should not be expected to generate quick returns. Research indicates that the productivity impacts of such investments are felt in their full force only after several years. It is therefore essential to decide on such investments without unnecessary delay.

In economic policy, the focus must now be directed towards both the immediate problems of today and the longer-term capacity of the economy for renewal, employment

and productivity growth as well as strengthening the sustainability of the public finances. It is vital that people's immediate incomes are not severely impacted and also that confidence in the long-term outlook for the economy is not shaken.

Helsinki, 14 December 2020

Olli Rehn
Governor of the Bank of Finland

Tags

sustainability gap, monetary policy, innovation policy, COVID-19 crisis, COVID-19, corona crisis

FORECAST FOR THE FINNISH ECONOMY

The economy will recover from the pandemic, but even after recovery, growth will be slow

Today – Bank of Finland Bulletin 6/2020 – Finnish economy

The economic downturn in 2020 will be smaller in Finland than in the rest of the euro area, but this winter will still be difficult. COVID-19 will gradually be left behind in the course of 2021 due to the vaccines, and household consumption will drive growth of 2.2% in the Finnish economy. Growth will strengthen to 2.5% in 2022. At the end of the forecast period in 2023, the economy will return to a slow 1.5% growth rate reflecting the long-term sluggish growth conditions.



The global economy has strengthened since the collapse in the spring, and positive news on vaccine development has improved sentiment. However, the economies of Finland's main trading partners are threatening to deteriorate in the coming months due to the effects of the second wave of the virus. It will take time for Finland's operating environment to recover, and investments in Finland's export markets, in particular, will remain well below pre-pandemic projections. Finnish exports will begin to gradually recover from the 2020 collapse, driven by the export markets. Net exports, i.e. the difference between imports and exports, will not contribute much to growth in the forecast years.

Economic growth in the forecast period will hinge on private consumption. Growth in household income will continue and consumer confidence will strengthen as the threat from COVID-19 recedes. The increased caution of households, the threat of

unemployment and the narrowing of consumption opportunities due to restrictive measures has resulted in a record high household savings rate. Income left unused will provide more room for manoeuvre in household consumption in the years ahead.

Uncertainty over economic developments has led companies in Finland to postpone or cancel planned fixed investments. In the next few years, weak developments in construction may also weigh on investment. Overall, private investment will contract in 2020 and 2021 and only begin to clearly grow in 2022 as the uncertainty caused by the pandemic decreases and exports pick up. Even after the pandemic is over, expectations of poor profits will weigh on the appetite for investment.

The labour market will recover slowly from the pandemic and related restrictive measures. The employment rate will decline by one percentage point in 2020 and increase by about 1.5 percentage points in 2021–2023, to slightly over 73%.

Price pressures will be subdued in the forecast period. Consumer price growth has slowed to 0.4% this year due to the COVID-19 pandemic, but will gradually accelerate in 2021, supported by growing private consumption. Wages will increase by around 2% on average over the forecast period. The price of labour will rise only slightly in 2020 but accelerate in 2021 when the temporary deferrals to employers' social security contributions end. Finland's cost-competitiveness will improve compared with the euro area in 2020 but threatens to weaken in the years ahead.

Economic policy has softened the effects of the recession. The general government fiscal position relative to GDP will deteriorate almost as sharply in 2020 as in the recession in 2009 caused by the Global Financial Crisis. The deficit is deepened by a fall in tax revenues and the measures to support the economy, increased unemployment expenditure and expenditure increases under the Government Programme. The deficit in 2020 will be around 7% of GDP, from which it will gradually decrease to just over 2% in 2023. Due to the crisis, the general government debt-to-GDP ratio will increase sharply. In 2023, the debt-to-GDP ratio will be as high as 74%. The general government structural balance will further weaken as a result of the crisis, which is why the estimate of the sustainability gap has weakened to 5.5%.

Although the recession caused by the pandemic has remained smaller than feared, it nevertheless weakens potential growth. The second wave of the pandemic will cause investment to decrease further and delay the recovery of the labour market. Even after the crisis, population ageing and low productivity will weigh on long-term growth potential.

The forecast has risks in both directions. The short-term economic outlook already contains uncertainty regarding how quickly the pandemic can be brought under control. In addition to the baseline forecast, uncertainty is assessed in two alternative scenarios. A positive scenario would be if a medical solution can be brought into play already in the first half of 2021 and the economy as a result grows much more quickly than forecast. It is, however, still possible that the epidemic will spread during the winter and the public will have to be protected by a wide-ranging shutdown of the economy. In the event the epidemic is prolonged, the economy would contract further in 2021. In a worst-case scenario the COVID-19 crisis could leave a deep permanent scar on the Finnish economy.

The economy will take time to recover



Table 1.

Key forecast outcomes					
Percentage change on the previous year					
	2019	2020 ^f	2021 ^f	2022 ^f	2023 ^f
GDP	1.1	-3.8	2.2	2.5	1.5
Private consumption	0.8	-5.3	3.6	4.0	1.8
Public financial consumption	1.1	3.2	2.1	-0.7	0.2
Fixed investment	-1.0	-3.1	-2.2	3.1	2.2
Private fixed investment	-1.6	-5.6	-3.2	3.8	2.3
Public fixed investment	2.1	8.3	1.7	0.3	1.8
Exports	7.7	-9.1	5.7	3.9	3.3
Imports	3.3	-7.1	4.5	4.0	3.3
Effect of demand components on growth					
Domestic demand	0.5	-2.8	1.8	2.6	1.5
Net exports	1.7	-0.8	0.4	0.0	0.0
Changes in inventories and statistical error	-1.0	-0.2	0.0	0.0	0.0
Savings rate, households, %	0.4	7.7	4.7	1.6	0.6
Current account, %, in proportion to GDP	-0.2	-0.7	-0.3	-0.4	-0.4
	2019	2020 ^f	2021 ^f	2022 ^f	2023 ^f
Labour market					

Key forecast outcomes					
Number of hours worked	1.2	-1.8	0.5	1.1	0.8
Number of employed	1.1	-1.6	0.1	1.1	0.7
Unemployment rate, %	6.7	7.8	8.3	7.7	7.4
Unit labour costs	1.3	2.8	1.5	0.5	1.4
Labour compensation per employee	1.3	0.6	3.6	1.9	2.3
Productivity	0.0	-2.2	2.0	1.4	0.8
GDP, price index	1.8	2.1	1.2	1.3	1.5
Private consumption, price index	1.0	0.3	1.0	1.3	1.6
Harmonised index of consumer prices	1.1	0.4	0.9	1.2	1.5
Excl. Energy	1.0	0.8	0.8	1.2	1.4
Energy	3.0	-4.8	2.2	1.8	1.9
Sources: Statistics Finland and Bank of Finland.					

External environment: assumptions and financial conditions

The COVID-19 pandemic continues to dominate the economic outlook. The global economy has strengthened since the collapse in the spring, and positive news of medical solutions to get a grip on the pandemic has improved sentiment among economic agents. However, the economies of Finland's key trading partners are threatening to deteriorate in the coming months due to the effects of the second wave of the virus, related restriction measures, and the uncertainty arising from the pandemic. As long as no medical solutions to stop the spread of the pandemic are available or widely adopted in the world, some of the restriction measures will have to be continued and uncertainty

will overshadow economic growth. A more permanent brightening of the economic outlook will therefore require that the spread of the virus be brought under control. The forecast is based on data available on 24 November 2020.

Pace of global economic recovery dictated by epidemic developments

The global economy saw a strong recovery in the summer following the collapse in the second quarter. In September, the volume of world trade returned to early-year levels, as the virus situation abated in many countries during the summer. The strengthening of the external economic environment has also improved Finland's economic outlook, and Finland's export demand is recovering in the wake of global trade (Chart 1). However, recovery will be slow and export demand will not surpass its pre-pandemic peak until 2022.

In 2020, the global economy entered an exceptionally deep recession, and, while it appears to be slightly less severe than anticipated, global GDP will not return to the pre-crisis baseline forecast path over the forecast horizon. The global economy will continue to recover in 2021 as medical solutions to combat the spread of the virus are made available. The forecast assumes that medical solutions will be widely and successfully adopted across the globe by the first half of 2022. Towards the end of the forecast horizon, global growth will stabilise close to the long-term average, i.e. just under 4%. Nevertheless, the future development of the global economy still hinges crucially on the coronavirus situation. In the short term, in particular, it appears the uncertainty caused by the pandemic will remain high. Without medical solutions to reduce the concerns caused by the virus and the need for restriction measures, the recovery of the global economy will remain vulnerable.

Chart 1.

Finland's export demand will recover in the wake of world trade



Sources: CPB, Eurosystem and the Bank of Finland.

*Imports in the countries Finland exports to, weighted by their share of Finland's exports. The dashed line represents the underlying forecast assumptions on growth in the export markets.

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The euro area economy also witnessed a strong recovery in the third quarter as the virus

situation became calmer. However, euro area GDP is still lower than at the end of 2019. The recovery of European economies is slowed by the second wave of the COVID-19 epidemic, which threatens to weaken economic growth again at the turn of the year. In many of Finland's key trading partners, such as Sweden and Germany, the COVID-19 situation has deteriorated during the autumn. Nevertheless, euro area GDP growth is expected to gain momentum in 2021 (Table 2), with the gradual adoption of medical solutions and an accelerating recovery as virus concerns recede.^[1] However, recovery will be slow and the output losses caused by the pandemic will mean the euro area will not return to the pre-crisis baseline forecast path over the forecast horizon. The recovery of the euro area is strongly linked to an amelioration of the pandemic.

Both private consumption and private investment will gradually recover in the euro area as uncertainty fades. Consumption and investments will reach pre-crisis levels in mid-2022. As the economy recovers from the recession, inflation in the euro area will accelerate only tentatively over the next few years. A no-deal Brexit at the turn of the year would temporarily weaken Finland's export demand slightly and raise export prices.

Financial conditions support growth

During 2020, the European Central Bank (ECB) has substantially increased its monetary accommodation. It has expanded the existing asset purchase programme and from the end of March commenced purchases under the new pandemic emergency purchase programme (PEPP) launched by the ECB Governing Council, the envelope of which was increased to EUR 1,850 billion in December and the duration extended to at least March 2022. The ECB also further relaxed the conditions of the third series of targeted longer-term refinancing operations (TLTROs) and decided in December to launch three new operations between June and December 2021. Additionally, in December the ECB decided to offer four new non-targeted pandemic emergency longer-term refinancing operations (PELTROs) in 2021. Interest rates remain low. The interest rate on the main refinancing operations is 0.00%, the rate on the marginal lending facility is 0.25% and the rate on the deposit facility is -0.50%. The ECB Governing Council expects the key ECB interest rates to remain at their present or lower levels until it has seen the inflation outlook robustly converge to a level sufficiently close to, but below, 2% within its projection horizon, and such convergence has been consistently reflected in underlying inflation dynamics.

Financial conditions in Finland have remained favourable and supportive of growth also in the latter half of 2020. The average interest rates for both new corporate loans and new housing loans have remained moderate throughout the year in Finland (Chart 2). The financial markets expect euro area short-term interest rates to decline slightly over the forecast horizon (Table 2). Continued low funding costs will contribute to the economic recovery. According to the Bank Lending Survey (BLS), credit standards for corporate loans have eased, credit standards for housing loans remained on average unchanged and credit standards for consumer loans slightly tightened this year in Finland. The survey showed that for the last quarter of the year, banks expect credit

1. More detailed information on the euro area forecast is available at <https://www.ecb.europa.eu/pub/projections/html/index.en.html>.

standards for household loans in Finland to ease slightly. According to the Business Tendency Survey by the Confederation of Finnish Industries EK, financial difficulties have increased slightly since early in the year in the construction sector, but in general, financial difficulties have not become a particularly significant obstacle to output or sales this year.

Chart 2.

Average interest rates on new loans have remained moderate



*Excl. overdrafts and credit card debt.

Source: European Central Bank, Reuters and Bank of Finland.

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Table 2.

Forecast assumptions					
	2019	2020 ^f	2021 ^f	2022 ^f	2023 ^f
Volume change year-on-year, %					
Euro area GDP	1.3	-7.3	3.9	4.2	2.1
World GDP	2.7	-3.5	5.6	3.9	3.4
World trade ¹	0.6	-9.5	7.1	4.3	3.6
Finland's export markets ² , % change	1.4	-9.6	6.7	4.9	3.5
Oil price, USD/barrel	64.0	41.6	44.0	45.7	46.9
Export prices of Finland's competitors, euro, % change	1.8	-4.5	0.8	2.1	1.9
3 month Euribor, %	-0.4	-0.4	-0.5	-0.5	-0.5
Finland's nominal effective exchange rate ³	106.0	108.6	110.0	110.0	110.0
USD value of one euro	1.12	1.14	1.18	1.18	1.18

¹Calculated as the weighted average of imports.

²The 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.

³Broad nominal effective exchange rate, 2015 = 100. The index rises as the exchange rate appreciates.

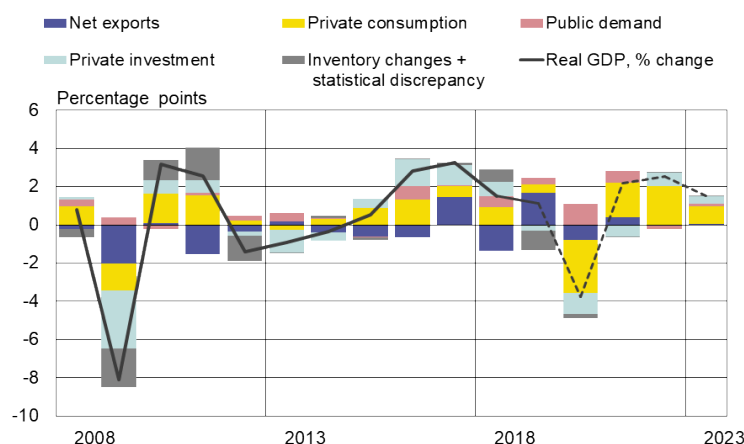
Sources: Eurosystem and Bank of Finland.

Demand

The COVID-19 pandemic and related restriction measures will continue to strain Finland's economic growth in early 2021. However, as vaccinations bring the pandemic under control in 2021, the Finnish economy will begin to grow, driven by private consumption.

Chart 3.

Economic recovery led by domestic consumption



The GDP growth contribution of each demand component has been calculated on the basis of its volume growth and its value share in the previous year. The figures for 2020–2023 are forecasts.

Sources: Statistics Finland and Bank of Finland.

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Consumption will recover rapidly as uncertainty fades

Growth in aggregate demand will rest mainly on growth in private consumption (Chart 3). In the forecast period, the purchasing power of households will be increased primarily by an increase in earnings and public transfers. Employment will start to recover slowly in 2021, which will raise household disposable income and support growth in purchasing power. Transfers will be increased especially by higher unemployment and pension income. Inflation will remain low, supporting growth in purchasing power. Overall, household disposable income will increase by an average annual rate of about 2% between 2020 and 2023. Real income will grow by an average of 1% between 2020 and 2023.

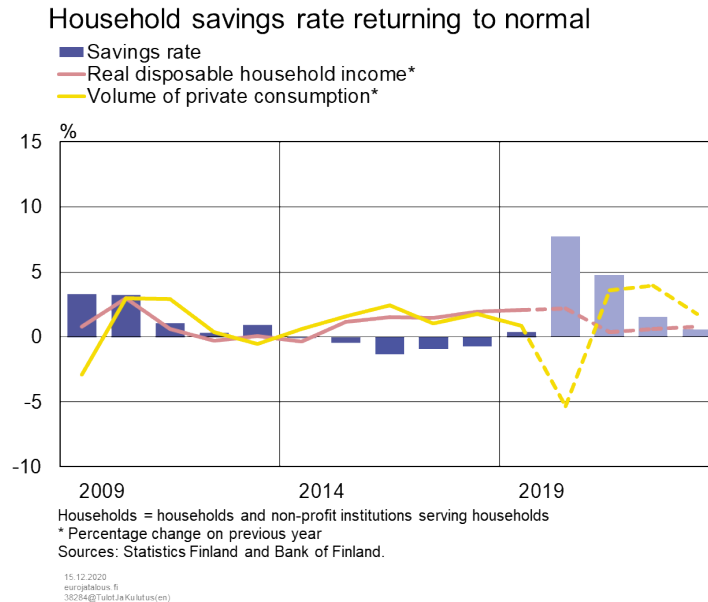
Consumer confidence is still low after the autumn, and the second wave of the coronavirus pandemic will continue to weigh on demand for private services in early 2021. As the pandemic is brought under control and uncertainty fades, private consumption will recover rapidly. In 2021 and 2022 private consumption will grow at an average rate of slightly below 4% per annum, but will later decelerate towards the long-term average, i.e. below 2%. The pandemic is not expected to leave a permanent mark on private consumption growth, but its structure may change. E-commerce, for example, may permanently increase its share of trade.

In response to households' increased caution, the threat of unemployment, and reduced opportunities for consumption due to restriction measures, the household savings rate jumped to a record high, and will remain high in 2021 (Chart 4). As the situation normalises, the savings rate will gradually return closer to long-term levels. Over the next few years, income left unused will provide households with more scope for consumption.

The housing market has remained lively despite the coronavirus pandemic. A large

number of new housing loans have been drawn down in 2020, thus accelerating the growth of the housing loan stock. Holiday cottage loans also attracted a lot of interest. At the same time, consumer credit growth has slowed significantly. No significant changes occurred in housing loan interest rates, and loan interest rates have remained moderate.

Chart 4.



Uncertainty weighing on investment

Uncertainty over the path of the economy has led companies in Finland to postpone or cancel fixed investments. Weak developments in construction, especially in new-build housing construction, are also weighing on investment. The volume of housing construction has continued to decline, and the number of building permits granted has declined further in 2020. In addition to the increased uncertainty, the slowdown in housing construction is explained by normal cyclical fluctuations, as there was a long boom in housing construction before the pandemic. Overall, private investment will contract in 2020 and 2021 and only begin to clearly grow in 2022 as the uncertainty caused by the pandemic decreases. Even after the pandemic is over, unfavourable demographic trends and weak productivity growth will weigh on the appetite for investment.

While the COVID-19 crisis barely tightened the financial conditions of Finnish companies, demand for corporate loans has decreased during the summer and early autumn due to low investment.

Exports will recover, but slowly

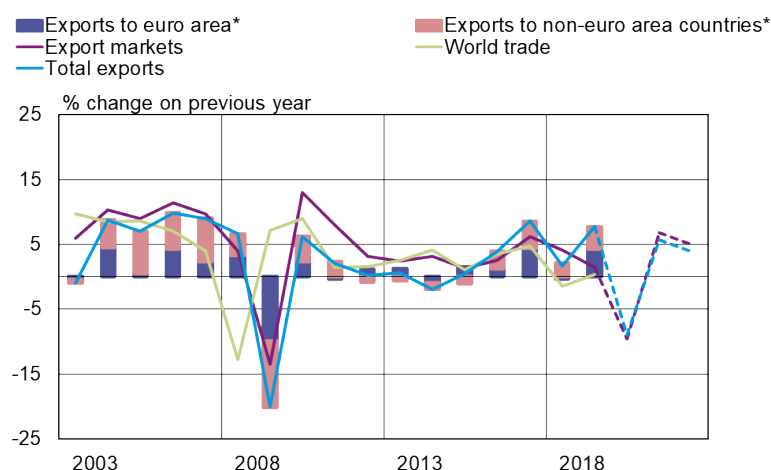
Finland's exports will decrease by almost 10% in 2020 due to contracting export markets. As the acute phase of the pandemic gradually recedes, the world economy and the Finnish export markets will begin to recover (Chart 5). Finnish exports will recover from their slump in 2020 on the back of export markets and grow by some 6% in 2021. In

2021–2022, exports will grow only slightly slower than the export markets. Finnish exports will catch up with growth in the export markets with a slight delay in 2023. Finland's goods exports are centred on capital and intermediate goods, and global uncertainty will hamper investment at the beginning of the forecast period. Overall, exports are expected to recover reasonably well over the next few years from the slump caused by the COVID-19 pandemic.

Over the next few years, imports will grow at roughly the same rate as exports. One of the factors contributing to import growth is that the Finnish export industry uses plenty of foreign raw materials and intermediate goods. The recovery of private consumption and investment will also increase imports, especially at the end of the forecast period. Net exports, i.e. the difference between imports and exports, will not contribute much to growth during the forecast period. The current account will remain in deficit in the forecast years, on average at around 0.5% of GDP.

Chart 5.

Export growth will remain slower than growth in export markets



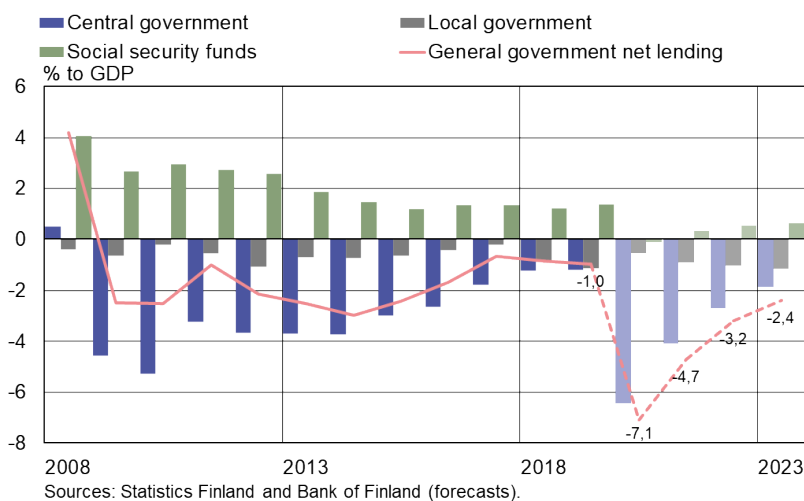
*According to balance of payments data.
Export volumes at reference year 2010 prices.
Sources: Statistics Finland and Bank of Finland.
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Public debt will grow substantially

The general government fiscal balance relative to GDP will deteriorate almost as sharply in 2020 as in the recession in 2009 caused by the Global Financial Crisis. In 2020, the deficit will be around 7% relative to GDP, from which it will gradually decrease to just over 2% in 2023 (Chart 6).

Chart 6.

Coronavirus crisis severely weakening the general government fiscal balance relative to GDP



Sources: Statistics Finland and Bank of Finland (forecasts).

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Coronavirus-related measures to combat the epidemic and support the economy, increased unemployment expenditure, and expenditure increases under the Government Programme will all significantly raise public spending in 2020. At the same time, population-ageing will sustain the annual growth in the need for services. Public investment will increase in the forecast period due to, for example, infrastructure projects and municipal authorities' construction investments.

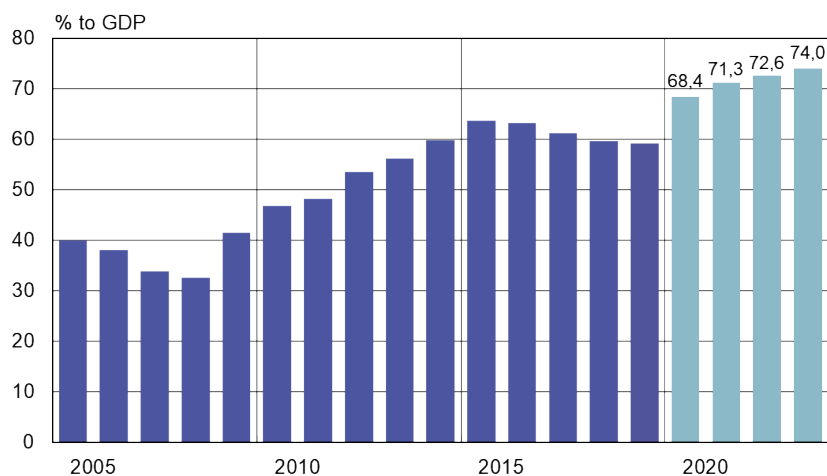
Revenue from taxes and tax-like payments will decrease in 2020, especially value added tax, corporate tax and employers' social security contributions. Index adjustments of earned income tax and a lowering of the industrial electricity tax will also reduce tax revenue. On the other hand, the public finances will be strengthened over the forecast horizon by tightening of certain indirect taxes, such as fuel taxes.

Out of general government, the central government bears the heaviest burden of the COVID-19 crisis. The state strongly supports municipal authorities through public transfers and changes in tax parameters, thereby temporarily strengthening the fiscal position of local government. Social security funds will temporarily post a deficit, but soon return to surplus.

In addition to the cyclical situation and accommodative fiscal policy, central government capital injections and tax payment arrangements with eased terms also directly raise public debt, even though they have no impact on the deficit. The general government debt-to-GDP ratio will increase by about 9 percentage points in 2020 compared with 2019. By 2023, the debt ratio will rise to 74% (Chart 7).

Chart 7.

General government debt will exceed 70% in proportion to GDP



Sources: Statistics Finland, State Treasury of Finland and Bank of Finland.

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Supply and cyclical conditions

The recession caused by the coronavirus pandemic has been less severe than anticipated, but potential growth will nevertheless slow temporarily. As a result of the second wave of the pandemic, investment will decrease further, and the recovery of the labour market will be delayed. Growth in the capital stock and labour will remain modest during the forecast period.

Employment will recover slowly

The labour market will recover slowly from the pandemic and the associated containment measures. The employment rate will decrease by one percentage point in 2020, but in 2021–2023 will increase by some 1.5%, to slightly over 73%. The number of employed at the end of the forecast period will be some 7,000 persons higher than in 2019. The unemployment rate will climb to 8.3% in 2021 and will decrease gradually, to 7.4% in 2023.

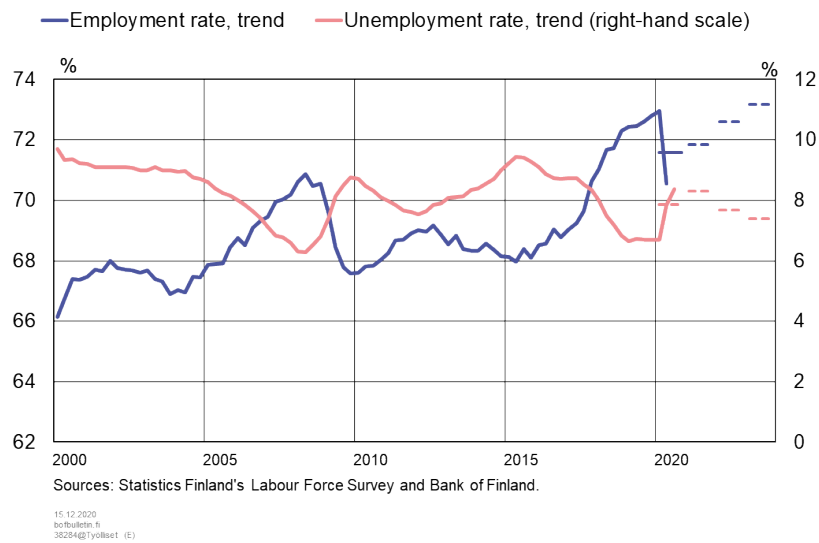
Employment weakened significantly in spring during the first wave of the pandemic, as demand collapsed due to the containment measures and health concerns related to the spread of the virus (Chart 8). As the first wave of the pandemic receded at the end of the second quarter of 2020, employment improved markedly in the third quarter. In spring, the increase in unemployment was smaller than the decrease in the number of persons employed, reflecting the large number of furloughs. The number of those on full-time furlough reached a peak in May and was approximately 170,000, and in October the number of persons furloughed was still nearly 60,000.

The labour market remains weak, despite the recovery in employment from the levels in spring when employment contracted. In late 2020, employment growth will decline as a result of the second wave of the coronavirus epidemic. In the early part of the forecast

period, uncertainty will dampen both household propensity to consume and employers' courage and possibilities of creating new jobs. Employment expectations also began to decline in autumn 2020. All the leading labour market indicators are weak, and the continued sluggishness of economic growth and the unaltered structural challenges similarly point to a slow recovery in employment. The working-age population will continue to shrink in 2020 and in the years to come, and there will be mismatch problems between vacant jobs and unemployed jobseekers. The turning of furloughs into permanent job losses and prolonged unemployment spells will slow the recovery of the labour market during the forecast period.

Chart 8.

Some of the furloughs will turn into unemployment



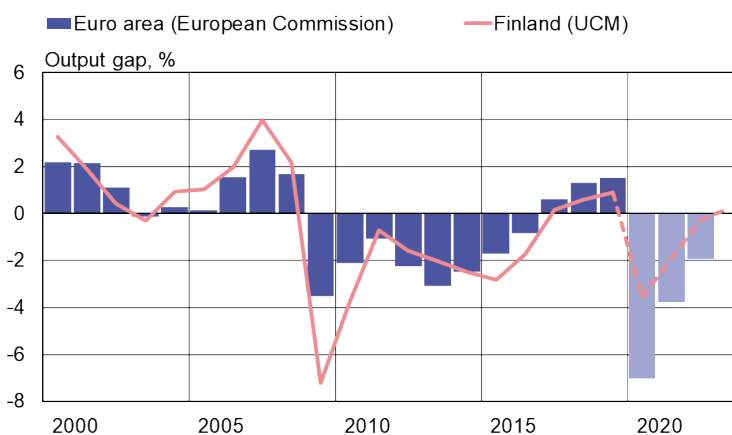
Conditions for economic growth are weak

Finland drifted into the recession caused by the coronavirus pandemic in a situation where the economy had just contracted for two consecutive quarters at the end of 2019. Annual GDP growth nevertheless remained above its potential rate in 2019, but in 2020 the output gap will turn negative, at about -3.5% , as a result of the recession (Chart 9). This is less than estimated during the summer, because the recession has not been as deep as expected. The weakening activity in service sectors had a considerable impact on the sudden deepening of the output gap during the coronavirus spring (see [The depths of the COVID-19 crisis, and the recovery](#)). The current crisis is expected to slow the economy's potential rate of growth temporarily during the forecast period, but GDP growth is estimated to be close to its potential rate towards the end of the forecast period.

The coronavirus pandemic is a symmetric shock that has pushed the euro area economy into a deep recession. Developments in the output gap in Finland will correlate closely with the output gap in the euro area during the forecast period, even though Finland's negative output gap will not be as deep as in the euro area on average. Despite this, there will be significant underutilization of resources in the Finnish economy during the forecast period.

Chart 9.

Finland and the euro area in a deep recession



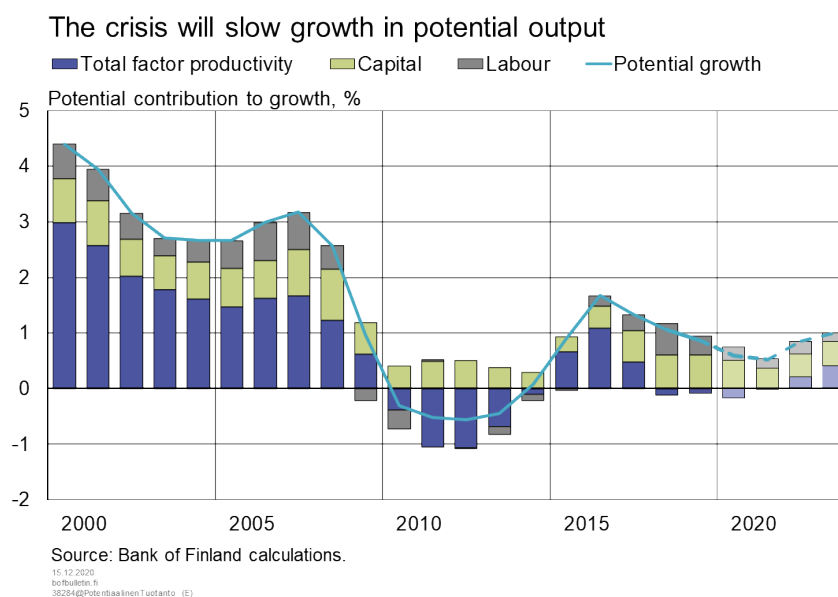
Finland's output gap assessed with the aid of an Unobserved Components Model (UCM).
Sources: European Commission and calculations by the Bank of Finland.

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The crisis will dampen growth in potential output temporarily in 2020–2023 (Chart 10). Even though economic growth will return to pre-crisis rates over the medium term, the level of potential output will remain lower than before. Growth in the capital stock will remain very moderate in 2020–2021 due to the weakness of investment, which will erode potential output. The decrease in labour input caused by the pandemic and its slow recovery, as well as the slight increase in structural unemployment, will reduce the importance of labour as a source of potential output during the forecast period. Labour supply will be constrained further by the fact that the working-age population (15–74-year-olds) is beginning to shrink. Growth in total factor productivity will remain subdued, due, for example, to disruptions in supply chains and lags in the reallocation of resources.

If the pandemic drags on, it may erode the economy's rate of potential growth even permanently (see Risk Assessment). Protracted furloughs and unemployment spells may result in higher structural unemployment and a decline in the participation rate and thus lead to a permanent decrease in labour input. Persistent weakness of investment, as well as bankruptcies and destruction of capital will erode the capital stock, and the decrease in R&D investment may also slow productivity growth in the long term. The structural rigidities and frictions in the economy will play an important role in how effectively economic resources are reallocated and how quickly potential output improves.

Chart 10.



Prices, wages and costs

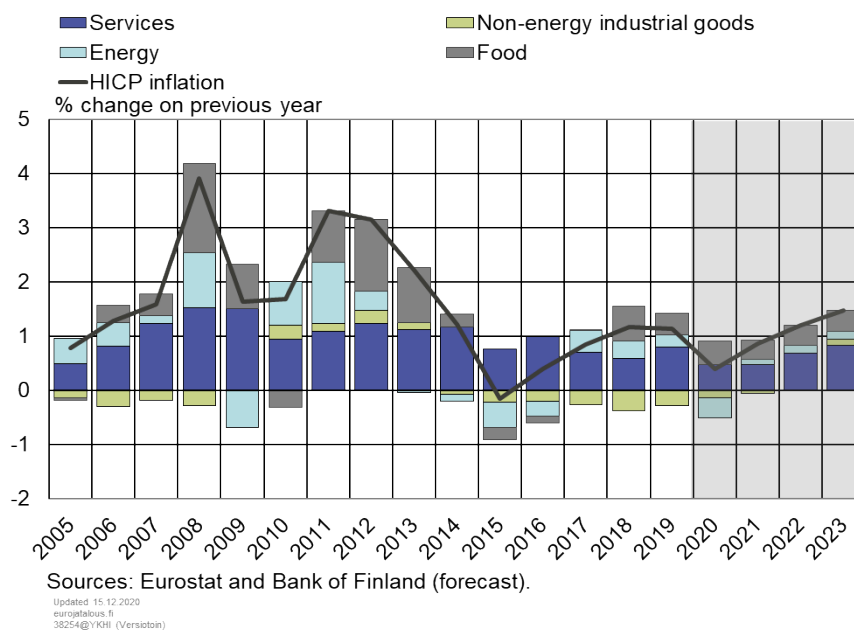
The rise in consumer prices has slowed in 2020 to 0.4%, due to the effects of the COVID-19 pandemic. Inflation will, however, recover gradually during the forecast period, supported by growth in private consumption. Growth in nominal earnings will slow to 1.7% in 2020 and will pick up slightly in 2021. The index of wage and salary earnings will increase by an average of some 2% per annum in the forecast period. Reflecting furloughs and permanent layoffs, total wages dipped in the second quarter of 2020, despite the rise in earnings. As a result, compensation per employee will increase in 2020 only slightly, but the rate of increase will return to pre-pandemic levels during the forecast period. Finland's cost-competitiveness will improve relative to the euro area in 2020, but threatens to weaken in the coming years.

Rise in consumer prices came to a halt

Consumer price inflation, as measured by the harmonised index of consumer prices (HICP inflation) will slow to 0.4% in 2020, due to the indirect effects of the COVID-19 pandemic (Chart 11). The rate of inflation in Finland has, however, been higher than in the euro area. For example, HICP inflation in October was in Finland 0.2%, whereas in the euro area, it was only -0.3%. The rise in prices was dampened by the notable fall in crude oil prices in the second quarter; oil prices have however risen from their trough in the course of the year. Underlying inflation too, has slowed notably in Finland in 2020, as in the other euro area countries. Due to the effects of the pandemic, services inflation will slow to only some 1% and the prices of consumer goods (non-energy industrial goods) will decline by 0.5% compared with the previous year. In contrast, food prices (incl. alcohol and tobacco) have risen by over 2%, due to higher demand as a result of the pandemic.

Chart 11.

Inflation will pick up during the forecast period as consumption recovers



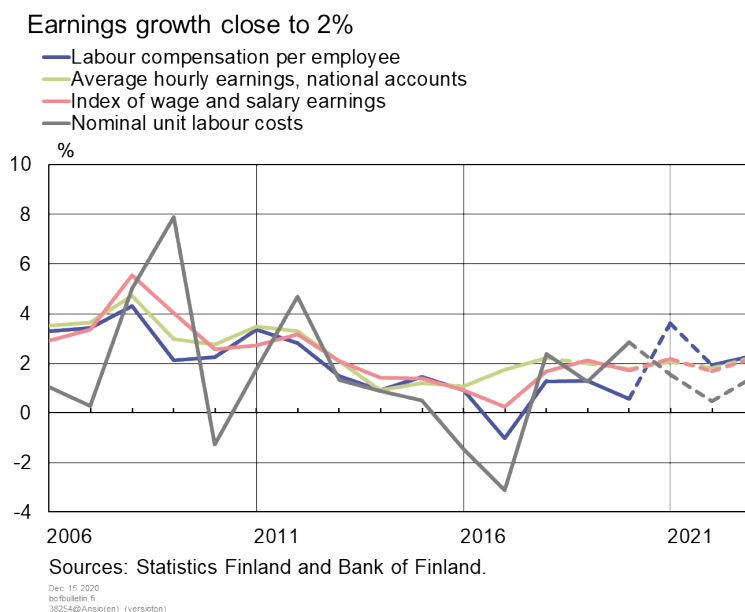
In 2021, inflation will pick up to 0.9%. In the early months of the year, inflation will remain slow, continuing the trend witnessed in the fourth quarter of 2020, as demand is dampened by the impacts of the pandemic. In the second quarter, inflation will increase to 1.2%, as a result of the upward pressure exerted on energy prices. Towards the end of the year 2021, higher consumption, and the fading of the impacts of the pandemic as assumed in the baseline scenario, will support particularly services inflation. Tax increases will push inflation by 0.4 percentage points in 2021, reflecting the rise in fuel taxes in August 2020 and the rises in tobacco and alcohol taxes agreed for 2021.

Towards the end of the forecast period, inflation will be supported by growth in private consumption and the closing of the output gap. Underlying inflation will pick up gradually, reflecting particularly a rise in services prices. The upward trend in energy and food prices will continue as the economy recovers. Overall HICP inflation will accelerate to 1.2% in 2020 and will reach 1.5% in 2023.

Wages will rise by some 2% per annum

Increases in negotiated wages, included in the two-year collective labour agreements concluded in early 2020, were slightly above 3%. The increases in negotiated wages were in 2020 as a rule smaller than those agreed for 2021. Based on data for the first three quarters of 2020, growth in nominal earnings measured by the index of wage and salary earnings will slow to 1.7% in 2020 (Chart 12). In 2021, the rise in the index of wage and salary earnings will accelerate to 2.2%, even though growth in wage drift is expected to remain slow, reflecting the weakness of the economic cycle. Nominal wages are expected to rise by some 2% on average during the forecast period 2020–2023.

Chart 12.

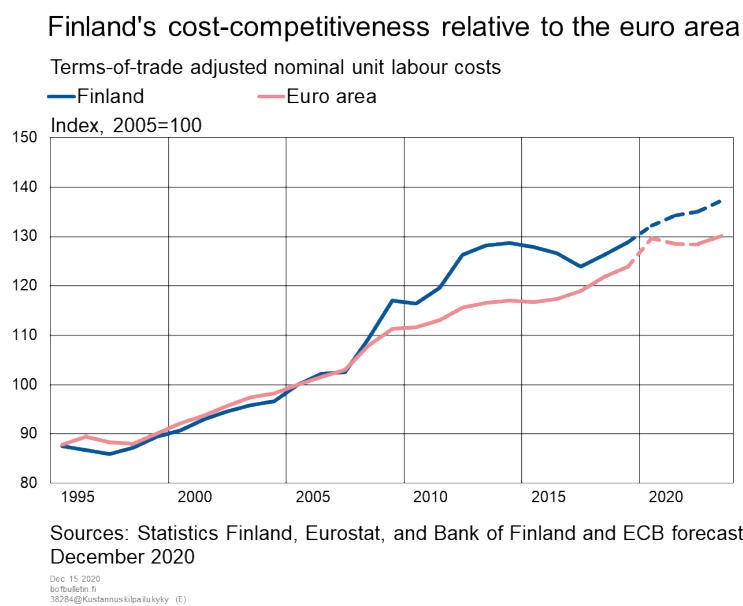


Compensation per employee will increase by only 0.6% in 2020. The slower rate of increase is due to, for example, the extensive furloughs in response to the pandemic as well as the temporary reductions in employer pension contributions in 2020 to mitigate the effects of the pandemic. The upward trend in compensation per employee will pick up to 3.6% in 2021, and in 2022–2023 it will be close to 2%. Nominal unit labour costs will increase by nearly 3% in 2020 as labour productivity starts to decline. Towards the end of the forecast period, the increase in unit labour costs will, however, slow significantly as labour productivity growth returns to pre-crisis levels.

Cost-competitiveness will weaken slightly

Due to the COVID-19 pandemic, estimates of developments in cost-competitiveness, and particularly labour productivity, are subject to significant uncertainty. Finland's cost-competitiveness is projected to weaken slightly during the forecast period. Cost-competitiveness appears to improve relative to the euro area in 2020, as measured by unit labour costs adjusted for the terms of trade. Cost-competitiveness, however, threatens to weaken in the later years of the forecast period (Chart 13). According to the December 2020 Eurosystem macroeconomic projections, growth in unit labour costs in the euro area will be negative, but in Finland it is expected to enter positive territory.

Chart 13.



Risk assessment

The forecast includes both upside and downside risks. The greatest uncertainty with regard to the economic outlook relates to how quickly the pandemic will be brought under control with a medical solution and how swiftly the global uncertainty will fade. There is also considerable uncertainty as to how the spreading of the virus can be prevented before a medical solution is successfully implemented. If the number of infections increases and containment measures must be tightened, it would have significant negative impacts on the economy, particularly in the labour-intensive service industries.

It is uncertain whether the coronavirus pandemic can be fully contained during 2021. The rapid strengthening of the second wave and the fear of new infections will cut domestic demand and particularly the consumption of services. Merely lifting the containment measures will not be enough to restore economic activity to previous levels. Consumers may be wary of consuming services in particular until a medical solution is effectively introduced to deal with the spread of the virus.

Developments in export markets are also subject to considerable risks. The strong second wave of the coronavirus epidemic in Finland's export markets and the re-tightening of containment measures towards the end of 2020 create uncertainty and may result in investments important for Finnish exports being deferred long into the future. The strength of the epidemic and the robustness and timing of the containment measures put in place differ across countries. So, the uncertainty in the export market will continue for quite some time.

It is difficult to estimate when a medical solution will be implemented successfully. It is therefore also difficult to estimate the economic impact of the virus and the prolongation of the containment measures. The exceptional degree of uncertainty associated with the

baseline forecast can, however, be illustrated with alternative scenarios. This risk assessment describes the December 2020 baseline forecast and two alternative scenarios on Finnish economic developments in the years to come (Table 3).

Table 3.

Description of scenarios and baseline forecast			
	<i>Mild scenario</i>	<i>Baseline forecast</i>	<i>Severe scenario</i>
Assumptions on the pandemic	<i>The virus is contained quickly (e.g. due to advances in medical treatment or other measures).</i>	<i>The virus cannot be contained rapidly, and some containment measures must remain in place in 2021. A medical solution is implemented successfully into the entire population in 2021.</i>	<i>The virus is not properly contained. Successful implementation of medical solutions takes longer. Strict containment measures must be reintroduced and some of them must be kept in place for significantly longer than assumed in the December 2020 baseline forecast.</i>
Rate of economic recovery	<i>Rapid economic recovery begins at the start of 2021.</i>	<i>Economic recovery strengthens in 2021.</i>	<i>The economic recession is deep and the recovery remains clearly slower than the December 2020 baseline forecast.</i>
GDP in 2023	<i>No significant permanent economic impact. GDP returns to the trajectory projected before the onset of the crisis.</i>	<i>Some permanent economic impact. GDP remains slightly below the trajectory projected before the onset of the crisis.</i>	<i>Significant permanent economic impact. GDP remains well below the trajectory projected before the onset of the crisis. Uncertainty remains very high.</i>
Inflation	<i>Demand factors, e.g. subdued consumption, curb price increases in the short term. No significant supply factors.</i>	<i>Temporary slowdown in inflation. Demand factors curb price increases, as supply factors remain less significant.</i>	<i>Inflation slows over the longer term. Demand factors curb prices more than supply factors.</i>

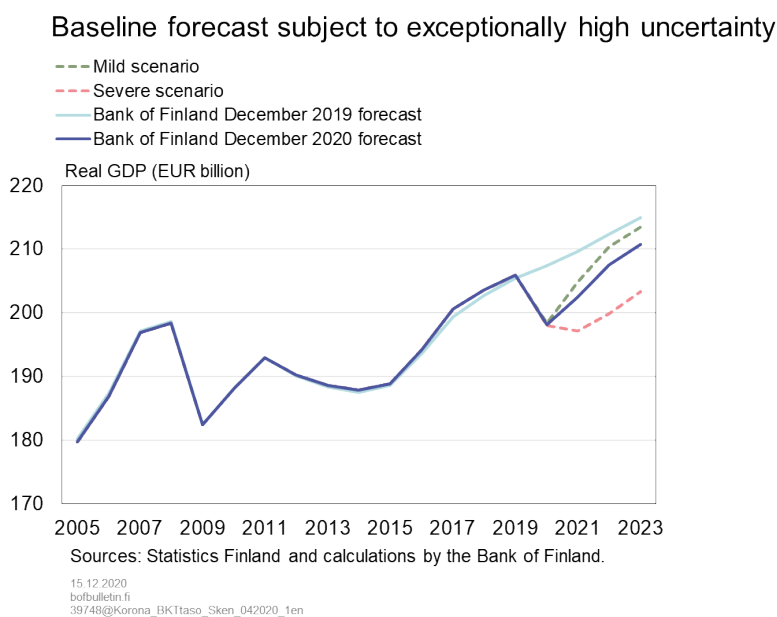
Baseline forecast: As the pandemic fades, economic growth starts to strengthen

The Bank of Finland's December 2020 baseline forecast assumes that the virus will be contained only in late 2021. A vaccination or an effective treatment will be rolled out to the public to an adequate extent during 2021. Uncertainty will however prevail until late 2021.

The baseline forecast assumes that the Finnish economy will recover in 2021–2023, but that in the later years of the forecast period GDP will remain slightly below levels projected in the Bank of Finland's December 2019 forecast, i.e. the pre-crisis trajectory (Chart 14). The losses in the volume of goods and services output, i.e. GDP, are cumulatively estimated at over EUR 25 billion in 2020–2023.^[2]

The economy will suffer some permanent output losses as a result of the weaker employment situation and bankruptcies. Unemployment will remain higher than pre-crisis levels (Chart 15). GDP will decline considerably in 2020 and economic recovery will be relatively slow in 2021. Uncertainty will fade towards the end of 2021 and export markets will pick up, which will boost GDP growth in 2021 and 2022. In 2023 economic growth will return close to medium-term growth rates.

Chart 14.

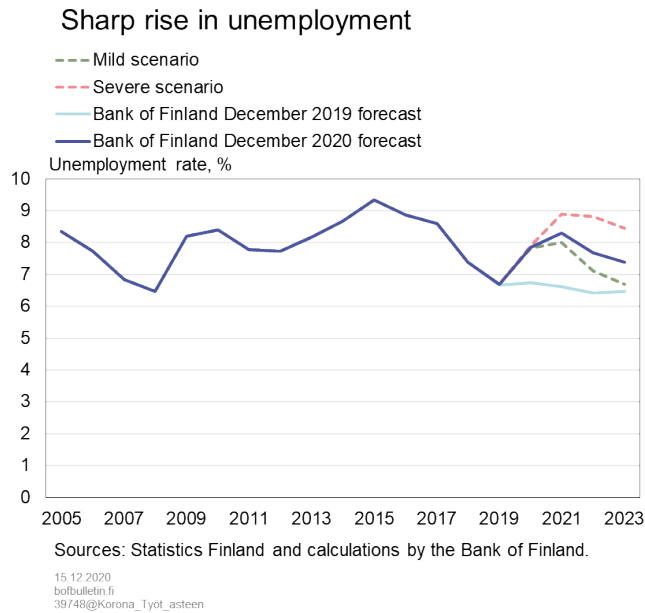


The economy will recover gradually in 2021 and 2022, supported by private consumption. Exports too will return close to the pre-crisis growth path, driven by

2. The baseline scenario preceding the coronavirus crisis refers to the Bank of Finland's December 2019 forecast for 2019–2022. The forecast is based on the assumption that economic growth in 2023 will move closer to long-term growth rates.

growth in export markets. Imports will grow, alongside consumption and exports, and therefore net exports will not have a positive contribution to GDP growth. Private investment will pick up in 2022 and 2023, but will remain moderate relative to historical levels.

Chart 15.



Mild scenario: a rapid vaccination programme roll-out would save the economy from permanent damage

The mild scenario describes a situation where the pandemic is contained worldwide faster than estimated in the baseline forecast, as a result of medical advances and robust targeted measures. With the pandemic brought under swift and unwavering control, fears of new outbreaks are substantially diminished. The containment measures can be eased significantly already in the early months of 2021. In this scenario, there are hardly any significant long-term output losses.

The rate of economic recovery in the mild scenario is rapid (Chart 14), and by 2023 real GDP returns very close to the trajectory projected before the coronavirus crisis. GDP growth contracts sharply in 2020 but picks up again and reaches a robust rate in 2021 (Table 4). In 2023, GDP growth decelerates towards its medium-term path. Employment growth is significantly stronger than assumed in the baseline forecast, and towards the end of the forecast period employment is already very close to its pre-crisis growth path.

Table 4.

Forecast summary		2019	2020^f	2021^f	2022^f	2023^f
GDP, annual growth (%)	Mild scenario	1.1	-3.7	3.2	2.7	1.5
	Baseline forecast	1.1	-3.8	2.2	2.5	1.5
	Severe scenario	1.1	-3.9	-0.4	1.3	1.8
Employment rate (%)	Mild scenario	72.6	71.7	72.4	73.2	73.5
	Baseline forecast	72.6	71.6	71.8	72.7	73.2
	Severe scenario	72.6	71.6	71.2	71.3	71.7
Unemployment rate (%)	Mild scenario	6.7	7.8	8.0	7.1	6.7
	Baseline forecast	6.7	7.8	8.3	7.7	7.4
	Severe scenario	6.7	7.9	8.9	8.8	8.4
General government deficit, relative to GDP (%)	Mild scenario	-1.0	-6.9	-3.8	-2.5	-1.8
	Baseline forecast	-1.0	-7.1	-4.7	-3.2	-2.4
	Severe scenario	-1.0	-7.1	-6.6	-5.1	-3.8
General government debt, relative to GDP (%)	Mild scenario	59.3	68.3	69.5	69.9	70.8
	Baseline forecast	59.3	68.4	71.3	72.6	74.0
	Severe scenario	59.3	68.6	75.2	79.2	81.7
Inflation* (%)	Mild scenario	1.1	0.4	1.2	1.5	1.7
	Baseline forecast	1.1	0.4	0.9	1.2	1.5
	Severe scenario	1.1	0.4	0.6	0.8	1.0

Forecast summary

Mild scenario: The economy recovers quickly without significant and permanent output losses.

Baseline forecast: The Bank of Finland's December 2020 baseline forecast.

Severe scenario: The economy recovers slowly and with significant permanent output losses.

* Harmonised Index of Consumer Prices, HICP.

f = forecast

Sources: Statistics Finland and Bank of Finland.

Containment measures and fear of the virus cause a temporary dip in private consumption, especially in the demand for services, which, however, recovers rapidly as the threat of the virus fades. Growth in private consumption is considerably stronger than assumed in the December 2020 baseline forecast and is already in 2021 higher than pre-corona crisis levels. Consumption continues to grow at a rapid pace also in 2022, as income saved during the corona crisis is spent on private consumption. Consumer demand starts to grow as the corona crisis is left behind. The export market suffers, but, as uncertainty fades, there is a relatively rapid recovery in exports and investment activity. Weak aggregate demand slows inflation only in the short term.

Severe scenario: a prolonged pandemic would leave permanent scars on the economy

In the severe scenario, the virus is not properly contained until towards the end of the forecast period and some containment measures must remain in place for considerably longer than assumed in the December 2020 baseline forecast. Uncertainty concerning health and the economy, therefore, remains clearly higher than in the baseline scenario. As in the baseline forecast, in the severe scenario it is assumed that a vaccine or viable treatment will come onto the market in 2021, but here its extensive introduction is delayed considerably. Broadly speaking, this adverse scenario thus describes the risks caused by the virus, indicating weaker-than-expected economic developments relative to the December 2020 baseline forecast.

In the severe scenario, the economy contracts also in 2021 and begins to grow only slightly in 2022. There are considerably more permanent production losses in various sectors than in the situation described in the December 2020 baseline forecast. A substantial number of companies go bankrupt and a large part of the rise in unemployment becomes permanent. In this scenario, GDP remains nearly 4% lower in 2023 than the trajectory projected before the coronavirus crisis.

In the severe scenario, containment measures and fear and uncertainty regarding new infections reduce household consumption. Firms put off investment as demand is weak, capacity utilisation is low and there is elevated uncertainty about the future. The globally unfavourable investment environment weakens the prerequisites for a recovery in

Finnish exports. A decline in investment in Finland's important export markets depresses economic growth in Finland over the long term. Weak demand keeps inflation low during the forecast period.

General government finances will weaken

The sharp contraction in the Finnish economy weakens the public finances considerably in all three scenarios, including the baseline forecast. The weakest trend is in the severe scenario, where the permanent decline in output and employment levels is especially significant. The increase in the general-government debt ratio from 2019 to 2023 varies between over 10% and over 20%, depending on the scenario. In 2019, the debt-to-GDP ratio was just under 60%. The decline in employment and private consumption decreases tax revenues, while at the same time higher unemployment is pushing up public expenditure. The widening of the general government deficit is also due to the measures implemented by government to soften the impact of the recession (see [General government debt](#)).

Economic recovery will depend on the evolution of the pandemic

The forecast is subject to both downside and upside risks. Particularly in the short term, i.e. in 2021, economic growth may be stronger than in the December 2020 baseline forecast. This can be the case if a vaccine is rolled out to the public more effectively than expected. It needs to be stressed that the uncertainty contained in the assessments stems particularly from the fact that we do not know how the coronavirus pandemic will play out in the near future, in Finland and elsewhere in the world. There is also considerable uncertainty as to how the spreading of the virus can be prevented in various parts of the world. The pandemic will not be over until it has been suppressed all around the world.

If there are considerable delays in the roll out of the vaccine, or if targeted measures to reduce infections prove unsuccessful or voluntary recommendations, such as social distancing and the use of masks, are not adequately followed, the number of infections will increase and containment measures will have to be tightened. This would have significant negative impacts on the economy, particularly in the labour-intensive service industries. While there have been advances in the medical treatment of the coronavirus, the disease is by no means conquered yet. For one, there is still uncertainty pertaining to the effective roll-out of vaccines, so that the virus can be suppressed globally.

Other factors will also shape the recovery

There is also uncertainty as to what sort of structural changes the crisis will bring in the areas of, say, international trade, the division of labour, and production. In terms of economic impact, it is also relevant how the crisis will affect digitalisation and influence consumer behaviour. Structural changes can have both favourable and adverse impacts on the economy.

The extensive fiscal and monetary policy measures implemented globally have mitigated the recession caused by the pandemic, in both Finland and elsewhere around the world. Future economic developments will depend on the continuation, targeting, and timing of these and similar measures. In a crisis, it is important that economic support-measures

remain in place for as long as necessary to minimise long-term harm. Similarly, cost-competitiveness will be a crucial factor in how Finland emerges from the crisis.

The December 2020 baseline forecast is the likeliest outcome for the economy. However, the mild and severe scenarios do not necessarily depict the best or weakest possible economic outcomes, and economic growth may prove slower or faster than indicated.

The longer the coronavirus crisis continues, together with the immense uncertainty surrounding it, the more long-term harm it will cause the economy as bankruptcies and unemployment increase. Reallocating resources effectively is important in terms of economic recovery, and it is also subject to uncertainty. For example, the allocation of labour from low-productivity service industries to, say, the ICT sector requires training and does not happen without friction.

Furthermore, a delay in the revival of the export market would have a very detrimental impact on the recovery of Finnish export industries. A prolongation of the crisis combined with a possible decline in competitiveness and rapidly increasing general government debt would exacerbate and prolong the economic recession in the years ahead. The article [The depths of the COVID-19 crisis, and the recovery](#), discusses the channels through which the crisis may leave long-term scars on employment, the capital stock or on productivity.

Tags

GDP, forecast, economic outlook, economic growth, coronavirus crisis, corona crisis

The depths of the COVID-19 crisis, and the recovery

Today – Bank of Finland Bulletin 6/2020 – Finnish economy



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In the Bank of Finland's December 2020 forecast, the crisis caused by COVID-19 is not expected to be as deep as the global financial crisis and recovery is expected to be faster. Although both recessions have had a broad-ranging impact, in the recession caused by the COVID-19 pandemic it is mainly service industries that have suffered. According to the forecast, the current crisis will result in temporarily slower economic growth in the next few years, but in the medium term the economy will see a return to the growth rates that preceded the crisis. However, the crisis may leave longer-lasting scars than anticipated in such areas as employment, capital stock and productivity, through a number of channels. Examples might be the hysteresis effects of long-term unemployment, low levels of investment and a slowdown in the reallocation of resources. This article takes a look at the background to the crisis caused by the COVID-19 pandemic, the current state of play, and recovery in the light of current forecasts.



We start by examining the initial stage of the crisis with reference to common economic indicators. In addition, we propose a new model that allows us to assess the empirical performance of the most widely used business cycle indicators employed in output gap analysis for Finland. This model is based on a study by Roeger et al. (2019), and it is supplemented by information from service industries in order to consider the special features of the current crisis.^[1]

The article also compares recovery from the crisis according to the Bank of Finland's December 2020 forecast with developments following the financial crisis. The investigation takes as its starting point the production function for the economy, where production is divided into the trends in labour input, capital and productivity. At the end of the article, the effect of the crisis is examined in terms of potential economic growth over the long term.

The output gap is a tool used by economists to assess the cyclical position at any one time. In this, it is important to ensure that the method employed takes into account the exceptional way in which the service industries have been affected by the crisis. The model including information from service industries suggests that there were signs that the economy was cooling even before the COVID-19 crisis. Poor performance in the service industries had a huge impact on the sudden widening of the output gap when COVID-19 made its presence felt in the spring. The lower estimate for the output gap was also influenced by the rise observed in short-term unemployment, the greater difficulties faced by industry with the fall in capacity utilisation, and generally weakening confidence as levels of uncertainty increased. For now, though, the economic decline measured with reference to the output gap has been less severe than that associated with the financial crisis.

The current information available suggests that the fall in production during the COVID-19 crisis has not been as dramatic as it was in the financial crisis. Moreover, recovery from the crisis is expected to be faster this time, according to the Bank of Finland's baseline forecast. Recovery from the financial crisis was delayed by such phenomena as the collapse of the electronics industry, which put a brake on any increase in productivity. Even after the financial crisis, the economic activity rate fell for several years in a row, as a result not only of the crisis itself but of an ageing population. Furthermore, the external environment was in crisis for a long time after the financial crisis. According to the Bank's forecast, the present crisis is expected to slow potential economic growth temporarily in the next few years, but in the medium term the forecast is that there will be a return to pre-crisis growth rates.

If the crisis goes on for longer than predicted, it may slow down potential growth permanently. The crisis may affect the workforce in particular through a rise in long-term and structural unemployment and a decrease in the participation rate. As for capital stock, the effects of the crisis on investment and on the destruction of capital are key considerations. For example, reduced investment in research and development could also slow down production growth in the long term. Protracted disruptions and interruptions in production chains and increased protectionism would also hamper the growth in production. Recovery from the crisis will depend very largely on an effective reallocation of resources to both increase productivity and boost employment.

1. Roeger, W., Mc Morrow, K., Hristov, A., and Vandermeulen, V. (2019) Output Gaps and Cyclical Indicators, European Economy Discussion Paper 104.

How is the coronavirus crisis captured in general cyclical indicators?

The Finnish economy declined suddenly in the spring when the coronavirus first spread from China to southern Europe and soon afterwards to Finland. Current information shows that even before that the Finnish economy had been contracting over a period of two successive quarters at the end of 2019. The economy was already cooling, regardless of any global crisis.

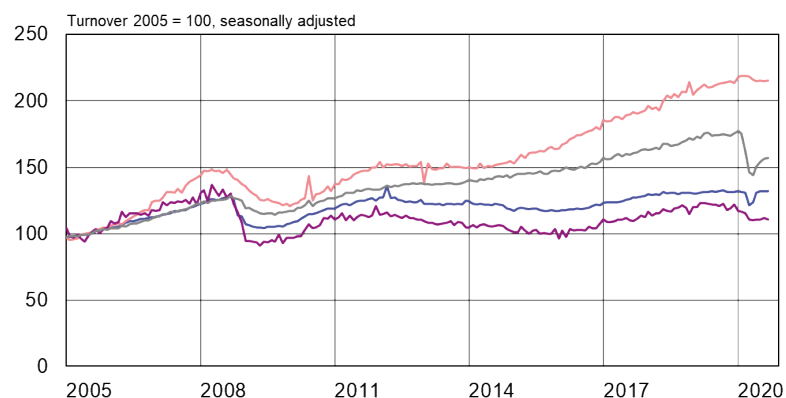
The service industries in particular have seen a dramatic fall in turnover

The start of the current economic crisis was very different from the international financial crisis of a good ten years ago. The current crisis was triggered by the severe pandemic, not by economic factors. Of course, this time too there has been a decline in foreign trade, but so far it is the service industries that have experienced the greatest difficulties, reliant as they are on people's mobility and contact with others (Chart 1).^[2]

Chart 16.

Industrial turnover fell exceptionally sharply during the financial crisis; with COVID-19, it is services that have suffered

— Trade — Construction — Manufacturing — Service industries



Source: Statistics Finland.

39731@Chart1EN

Within the service industries, it is particularly services such as travel and tourism, transport and many face-to-face services that have suffered most.^[3] During the financial crisis, the fall in turnover in the service industries was on the whole less evident than with other sectors. The most dramatic decline at that time was in manufacturing. Trade turnover also decreased sharply in the initial stages of the financial crisis, whereas the downturn in construction came gradually, which is typical of that branch of industry.

2. In the Chart, a turnover graph is employed because the index of services output only starts from 2010 and there are consequently no comparable series available for the time of the financial crisis.

3. The industrial structure is relevant to productivity growth, as several service industries are lower productivity sectors compared with manufacturing.

Turnover from trade also dipped overall during the current crisis when containment measures were at their most stringent in April and May, but afterwards the levels preceding the crisis were exceeded. Meanwhile, turnover in the construction industry has as yet not clearly declined.^[4]

The wide-ranging impact of the COVID-19 crisis is visible in general cyclical indicators

Next, we provide an assessment of how the initial stage of the COVID-19 crisis is visible in selected indicators of the economic cycle, i.e. price and wage inflation, capacity utilisation, the current account balance, short-term unemployment, GDP growth, the overall economic confidence indicator, and turnover in the service industries.

4. Although no obvious decline has been seen in turnover in the construction industry, there has been a steady fall in recent months in the number of building permits granted and construction projects getting under way.

Among the indicators to assess the business cycle, the same variables have been selected as those used in the study by Roeger et al. (2019), but supplemented with an indicator describing trends in the service industries, in order to consider the special features of the current crisis.^[5] The cyclical information obtained from these indicators has then been compiled with the aid of the model to give an estimate of the output gap later in the article.

- **Price inflation:** The rate at which prices rise is a very common indicator, which it is believed incorporates information on the cyclical position of the economy and the volume of free resources. For example, during a period of boom, prices rise quickly, because productive resources are being used to the full. Both demand and supply affect inflation. The Harmonised Index of Consumer Prices is an indicator of price inflation.
- **Wage inflation:** Salaries and fees paid per hour are the indicator used in this article to represent wage increases. Wage inflation is expected to contain cyclical information. In the literature, NAWRU^[6] refers to the lowest level of unemployment that can occur when wage growth is stable. Wage inflation would be expected to accelerate if unemployment fell below this level.
- **Capacity utilisation:** If capacity utilisation is higher than normal, the demand for a company's products may be assumed to be greater than what is usually the case in relation to production capacity, i.e. supply. Supply can also fluctuate, although changes in supply are normally slow. Capacity utilisation is identified on the basis of surveys conducted with industrial enterprises.
- **Current account balance:** The current account balance (CAB) is linked to the output gap, but the connection is not straightforward. External imbalances can occur for a number of reasons. There may be a CAB surplus owing to low domestic demand and high levels of savings. But a CAB surplus may also be due to buoyant external demand. In both cases a surplus arises, although the economic situation is different. The current account balance over several business cycles is also affected by long-term trends, such as the impact of an ageing population on the need to save. In this article, the CAB is expressed as a proportion of GDP.
- **Short-term unemployment rate:** There is a direct link between short-term unemployment and the cyclical position of the economy. Economic decline pushes up the figure for short-term unemployment. If a period of unemployment is prolonged and it becomes more structural in nature than short-term, that will be reflected in an increase in long-term unemployment. Short-term unemployment is

defined as unemployment lasting less than a year.

- **GDP growth:** There is a clear link between growth in GDP and the economic cycle. As Roeger et al. state, GDP growth is not just correlated with the cycle but will generally also be correlated with the trend.^[7]
- **Economic sentiment indicator:** The confidence indicator for the economy as a whole represents the aim to describe the situation at the level of the entire economy and possibly even the state of the economy in the near future. The indicator is used widely; it has the advantage of a short publication lag and is not revised. Here we use a lagged observation of the confidence indicator, as this tends to forecast future economic trends.
- **Service industry turnover:** During the COVID-19 pandemic it has been the service industries in particular that have suffered as a result of the considerable reduction in consumer mobility, the containment measures and voluntary changes in consumption behaviour. Gauging service industry activity during the current crisis is crucially important. An increase in turnover in the service industries also correlates strongly with the confidence indicator for services.^[8]

The cyclical indicators given in Chart 2 have been normalised, so that the way in which the series have varied during the time Finland has been in the euro area can be compared with one another. In other words, the mean for all the series is 0, and most of the observations (approximately 95%) lie between +2 and -2. We describe observations outside these limits as exceptional situations. Consequently, GDP declined to an exceptional extent during the spring, when COVID-19 hit, as did overall confidence in the economy and turnover in the service industries. In the third quarter of the year the economic difficulties are reflected in a sudden rise in short-term unemployment.

5. The publication by Roeger et al. (2019) gives a broader description and a more detailed rationale for the variables chosen. In this article we present the main arguments for the choice of variables as described in their publication.

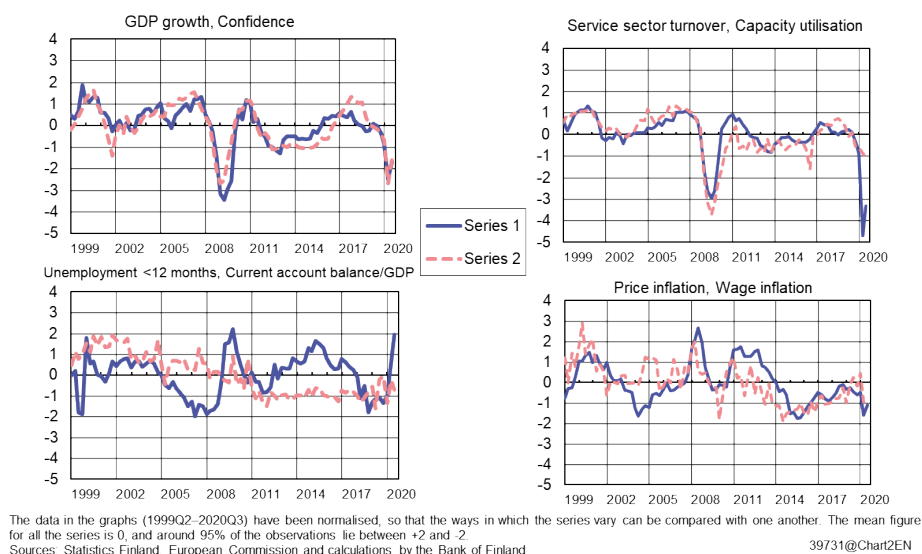
6. NAWRU = Non-accelerating wage rate of unemployment.

7. In the model presented hereinafter an attempt is made to reduce the correlation with the trend by using lagged annual GDP growth in the four quarters.

8. The correlation between the confidence indicator for the service industries and turnover in the service industries is very strong: while Finland has been in the euro area the correlation coefficient for annual and quarterly turnover growth has been 0.78 and 0.67 respectively. The confidence indicator has the advantage of a short publication lag and of not being revised, unlike turnover.

Chart 17.

The COVID-19 crisis is reflected in different ways in the general cyclical indicators



We can see from the chart that economic growth was slower than average even before the COVID-19 crisis took off, and that growth then slowed less than during the financial crisis. Short-term unemployment was at a lower level than usual prior to COVID-19, as was the case prior to the financial crisis. During both crises, the short-term unemployment rate rose rapidly.

When the present crisis started, price and wage inflation were subdued compared with the time preceding the financial crisis. The rate at which consumer prices increased was slower than average, and the dramatic decrease in demand generally in the spring of 2020 slowed the rise in prices even more. The wage inflation rate had also been slower than the average for the time Finland has been in the euro area and did not begin to accelerate until the eve of the crisis. The crisis has meant a reduction in price pressures.

The indicators selected suggest that the COVID-19 and financial crises have thus far impacted the service industries and manufacturing very differently. During the global financial crisis, manufacturing capacity utilisation plunged, but this time the decline has been gentle, at least so far.^[9] Turnover in the service industries, meanwhile, has plummeted to an unprecedented extent. There was a substantial decline in turnover during the financial crisis as well, but nothing like the complete halt in activity when the COVID-19 crisis hit in the spring. In general, however, both crises have had an adverse impact on both services and manufacturing.^[10]

9. The possibility cannot be ruled out that the situation in manufacturing may decline in the future, as, for example, there has been a fall in the number of new orders in the sector during the year.

10. Obviously, some sectors and companies have also benefited from the changes in demand, even if the impact on the main sectors has been negative.

The cyclical indicators suggest that the output gap is exceptionally large

The cyclical indicators shown above may be combined into one to describe the general economic situation, with the aid, for example, of a Principal Component Analysis (PCA).^[11] This measures the combined dynamics of the indices, i.e. the common factors affecting all of them at the same time.^[12]

The model describing the economic situation in Finland is based on the study by Roeger et al. (2019), supplemented with information obtained from the service industries. The first principal component accounts for half of the overall dynamic of the indicators.^[13] It can thus be referred to as depicting the cyclical change common to the variables around the normal economic situation, i.e. the output gap.^[14] With this new method, and to facilitate the comparison, the output gap has been scaled to correspond to the estimate for the output gap generally used by the Bank of Finland.^[15]

The advantage with the new method is that the effect of different cyclical indicators on changes in the output gap can be described in more detail than previously, and this therefore improves our understanding of the reasons for a cyclical downturn. The method confirms that the slowdown in activity observed in the service industries had, among various factors, the greatest single impact on the sudden widening of the output gap in the spring, when COVID-19 hit (Chart 3). Of the different cyclical indicators, the lower estimate for the output gap was also partly due to increased difficulties in manufacturing, with the fall in capacity utilisation and a general decline in confidence. After the spring, the increase in short-term unemployment had an ever-increasing effect on the estimate for the output gap.

11. There are a number of different confidence indicators, but only one is chosen for the analysis of the cyclical indicators (overall economy confidence indicator). The reason for this is that the objective is to assess the economic situation, not GDP growth, from the angle of the output gap. In other words, the analysis is conducted in terms of levels and not growth rates. As Roeger et al. state, overuse of confidence indicators can lead to a situation where level and growth signals are mixed. For the predictive features of confidence indicators, see, for example, Lindblad ja Silvo (2020) [Consumer confidence foreshadows developments in the economy](#), Bank of Finland Bulletin 3/2020. For this analysis we use the lagging overall economy confidence indicator in two quarters.

12. See, for example, Jolliffe I. (2002) *Principal Component Analysis*, Second Edition, Springer Series in Statistics, Berlin, Heidelberg.

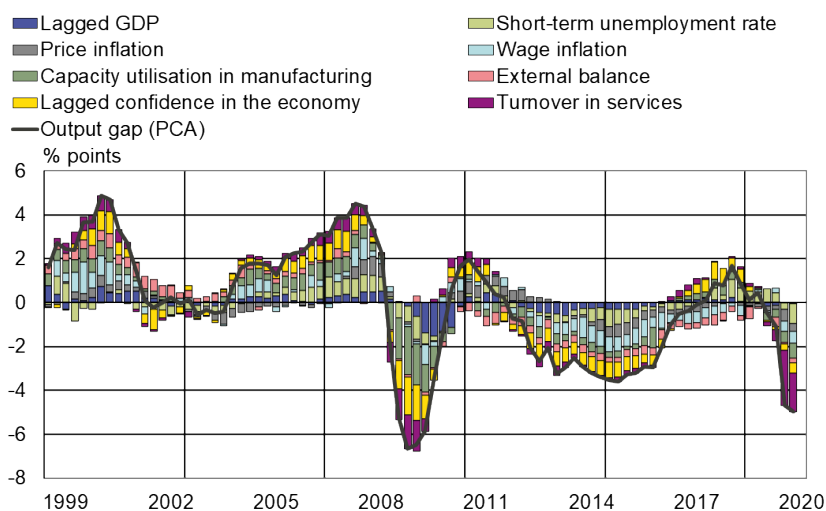
13. The cyclical variables used in the model were normalised before estimates were made for the principal component model.

14. The intention is not to use the model to describe the growth cycle, but rather levels of production in relation to normal levels (i.e. the trend or so-called potential output). In the model, an attempt is made to reduce the correlation of GDP growth with trend by using lagged annual GDP growth in the four quarters.

15. See more on the Bank of Finland's unobserved components method in Sariola, M. (2019) *An unobserved components model for Finland: Estimates of potential output and NAWRU*, BoF Economics Review 2/2019 (2019).

Chart 18.

Decline in service industries widened output gap in the spring



Source: calculations by the Bank of Finland.

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Decreased activity in the service industries during the financial crisis also had a fairly big impact on the rather gloomy estimate for the output gap, though less so than the sudden sharp fall in manufacturing seen at the time. During the financial crisis, the decline in public confidence also emerges as a significant factor in the exceptionally large output gap.

Chart 3 also illustrates other interesting phenomena related to the business cycle for the time that Finland has used the euro as its currency. For example, the rate at which consumer prices rise does not appear to be a major factor in the estimate of the output gap. Since 2013, inflation has been slower than normal, and it has not had any favourable effect on the estimate for the output gap at any time during this period. In other words, on the basis of the information obtained from the rate of increase in prices, the economy was not overheated before COVID-19 hit the country in spring this year.^[16] The information available from the labour market would seem to be useful in assessing the cyclical position.^[17] Short-term unemployment has an obvious impact on the output gap. Except in recent years, wage inflation would appear to have moved procyclically (and more markedly than price inflation), thus reflecting the economic situation.^[18]

16. There is occasionally some discussion about the Phillips curve. See, for example, and where it relates to the euro area, Bańbura, M. and Bobeica, E. (2020) Does the Phillips curve help to forecast euro area inflation? Working Paper Series 2471, European Central Bank.

17. The first principal component correlates strongly with the variables used in the model, and the signs for the correlation coefficients are as expected. The stronger the correlation, the more useful the variable is in assessing the cyclical position. The principal component correlates most strongly with capacity utilisation (0.88), lagging overall economic confidence (0.82) and turnover in the service industries (0.81). The weakest correlations relate to price inflation (0.44) and current account balance (0.50). Between the two are wage inflation (0.73), short-term unemployment (-0.65) and lagged GDP (0.61).

18. The 'Competitiveness Pact' could have had an effect in recent years on assessing the significance of wage inflation for the output gap, as this agreement slowed the rise in average hourly earnings. Other factors too may affect the assessment, such as changes in the trend rate of growth for price and wage inflation.

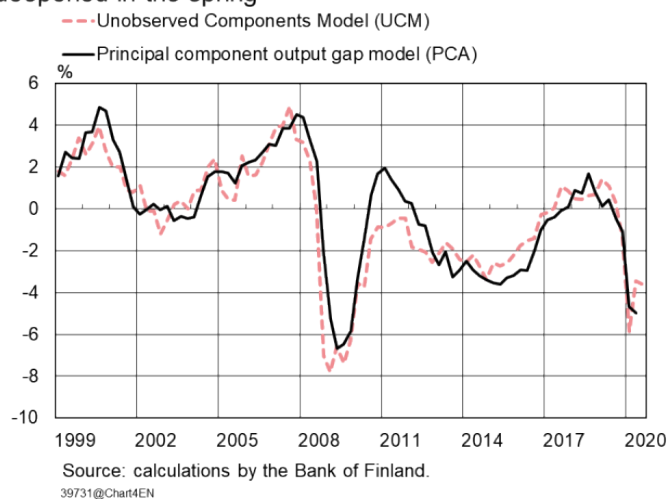


Output gap estimate similar, if uncertain, based on various methods

The principal component model (PCA) presented is only based on the common behaviour observed from the cyclical indicators and does not predetermine the links between the variables based on economic theory. The PCA output gap, however, produces a very similar picture to the Unobserved Components Model employed by the Bank of Finland, which also relies on economic theory (Chart 4). The model based on cyclical indicators would suggest that the economy had already cooled halfway through 2019 and was in fact more robust immediately after the financial crisis, although the differences are ultimately tiny.

Chart 4.

As a consequence of the pandemic, the output gap suddenly deepened in the spring



It is worth noting that the principal component gap does not take account of any changes in the trend rate of growth of the economic variables, which could lead to a misleading estimate of the output gap. The series used in the principal component gap model are concentrated around the mean value for the time Finland has been in the euro area. If the long-term trend rate of growth has slowed because of a fall in the working-age population and increased productivity, that can result in an excessively low estimate for the output gap at the end of the review period, as no account is taken of the decline in potential production growth. The same also applies to price and wage inflation in the periods examined. Since the global financial crisis, inflation expectations and actual inflation seem to have shown a slower trend. The Unobserved Components Model shown in Chart 4, however, can take changes in the trend rate of growth into account to some extent, and the gap estimates do not appear to deviate so very much from one another.

The creation of a reliable situational picture might well involve the use of a number of tools, as the output gap is an ‘unobserved’ variable that cannot be checked directly in the statistics even in retrospect. It is normal for the estimate for the output gap at the time to change when the indicators employed are revised later.^[19] Furthermore, because of the COVID-19 crisis, output gap estimates are associated with exceptional uncertainty, since, for example, when the crisis was in its acute stage, production fell due to the restrictions that businesses faced, which is a challenge to take account of in the models.

The depth of the crisis, and the recovery – a comparison with the financial crisis

Next, we shall examine the crisis caused by the COVID-19 pandemic and the recovery from it in the light of the Bank of Finland’s December 2020 forecast. At the same time, the development of various factors is compared with the time of the financial crisis. The examination takes as its starting point the production function for the economy, where production is divided into the trends in labour input, capital and productivity (Chart 5). To facilitate the comparison between the crises, the variables shown in the chart have been scaled in such a way that their baseline is 1 in the quarter preceding the crisis.^[20] The numbers for the coronavirus crisis in the shaded area are based on the Bank of Finland’s forecast.^[21]

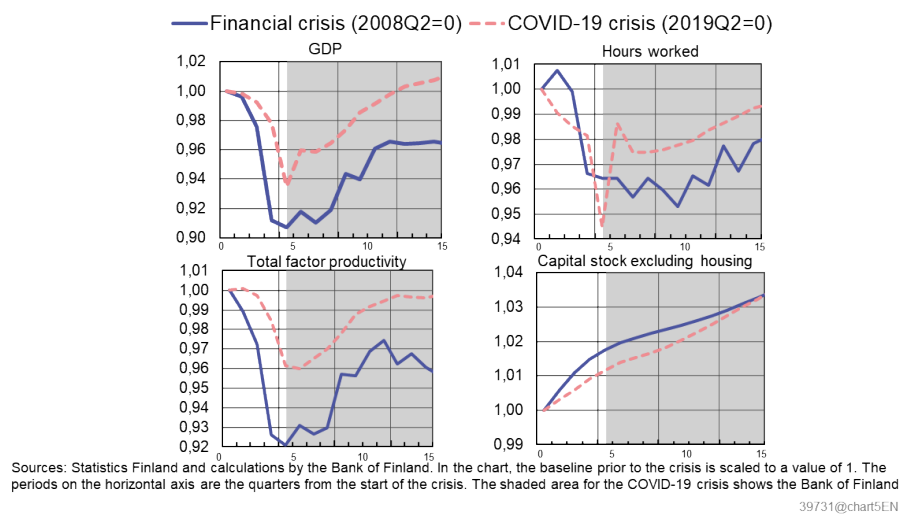
19. The forecasts in the Unobserved Components Model also have an effect on estimating the real-time output gap. Thus, the output gap can also change later, with the forecasts replaced with actual observations.

20. The scaling process is based on the last quarter that saw growth compared with the previous quarter prior to two consecutive quarters showing a decline. As far as the COVID-19 crisis is concerned, this is the second quarter of 2019; with the financial crisis it is the second quarter of 2008. In the chart, capital stock excluding housing indicates actual net capital stock.

21. At the time the projection was being drawn up (24 November 2020) the accounts for the third quarter of 2020 were not available, so they are based on a forecast.

Chart 20.

Forecast suggests a faster recovery this time than after the financial crisis



As shown by the output gap estimates, according to the information now available, the decline in production during the COVID-19 crisis has been less dramatic than it was during the financial crisis. Recovery from the financial crisis was an extremely slow process, and it was not until 2017 that production finally exceeded pre-crisis levels. Finland's slow recovery was explained in part by the severe and partly permanent contraction of the electronic and electrical industry that started at the same time as the financial crisis.^[22] At the same time, too, the number of people aged between 15 and 64 decreased. Furthermore, the external environment was in crisis for a long time after the financial crisis. In the current projection, recovery from the present (COVID-19) crisis is expected to be much quicker than it was the last time, and GDP is predicted to exceed pre-crisis levels by 2022. The projection assumes that the economy will improve in 2021, when an effective vaccine is available, uncertainty fades and people have fewer health worries. As a result, the service industries will recover. Although the Bank of Finland's baseline forecast projects a faster recovery, a closer analysis also reveals similarities between the crises. Both exhibit typical features of a demand-driven recession, such as a long-term decline in employment and investment.

It is also worth pointing out that the situation at the start of each crisis was markedly different from when the other began. Before the financial crisis, potential growth was still at around 3%. On the eve of the COVID-19 crisis, it was only just under 1.5%, as an ageing population and a prolonged period of poor levels of investment and productivity had slowed potential growth. Even if the recovery from the crisis is indeed faster this time, the gloomy long-term outlook for economic growth stretches back to the turn of the millennium.

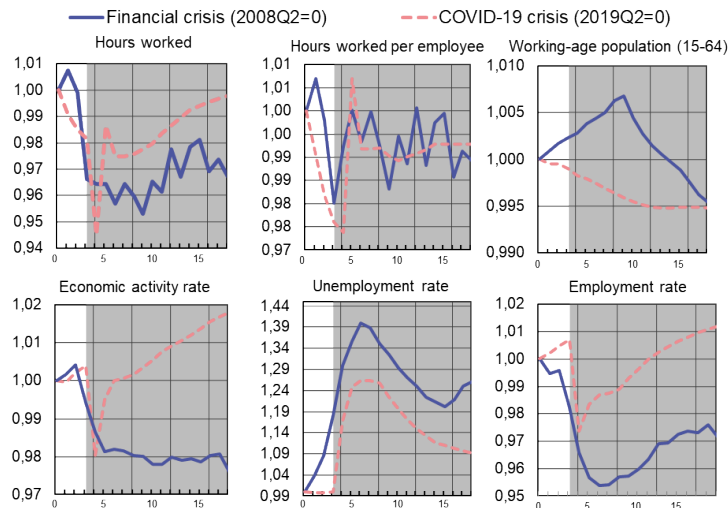
22. See, for example, [Several reasons behind weak labour productivity](#). Bank of Finland Bulletin 5/2018; Kokinen, Mäki-Fränti and Silvo, [Manufacturing is not fostering labour productivity growth as it did before](#), Bank of Finland Bulletin 3/2019.

The number of hours worked fell dramatically in the spring but picked up quickly in the third quarter

Total labour input for a country's economy is normally indicated by the number of hours worked, which can be broken down to participation rate, the size of the working-age population, the unemployment (employment) rate, and the average number of hours worked (Chart 6).

Chart 21.

The number of hours worked picks up gradually, post-crisis



Sources: Statistics Finland and calculations by the Bank of Finland. In the chart, the baseline prior to the crisis is scaled to a value of 1. The periods on the horizontal axis are the quarters from the start of the crisis. The shaded area for the COVID-19 crisis shows the Bank of Finland forecast for the period 2020Q3–2023Q4.

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There was a reduction in the number of hours worked in the initial stage of the COVID-19 crisis as a result of the containment measures introduced to stop the spread of the virus and social distancing (Chart 6). The drop in the second quarter of 2020 was over 5% from the same period a year earlier. The number of hours worked decreased slightly more than during the financial crisis, as activity in many labour-intensive service industries came to a virtual halt and a record number of workers were furloughed. As we saw earlier, turnover in the service industries fell especially dramatically.

As the first wave of the epidemic receded, the number of hours worked picked up substantially in the third quarter. However, the progress of the disease and the containment measures to control it will also be hugely relevant during the forecast period and will have an impact on the number of hours worked from now on also. In the final quarter of 2020, the number of hours worked is expected to fall again compared with the previous quarter owing to the second wave of the epidemic. In the Bank of Finland's December forecast, however, the expectation is that the number of hours worked will pick up more quickly than after the financial crisis and finish up at almost pre-crisis levels at the end of the forecast period. At the start of the financial crisis, production fell considerably more than at present, which was also reflected in the reduction in the number of hours worked, and the recovery was lacklustre.

The average number of hours worked – or working time per person employed – also fell substantially in the second quarter of 2020 (Chart 6). Average hours worked fell less than

actual hours worked, however, because the number of those in work went down less than the number of hours, on account of layoffs/furloughs, for example. It is assumed that average working hours will remain slightly below pre-crisis levels for the longer term, given the prevailing downward trend. But in the short term, furloughs will have the effect of reducing the average number of hours worked. During the financial crisis, average working hours fell only slightly, apart from during the initial reaction to the crisis, whereas there was a clear decrease in the number of hours worked and in employment. Altogether, the impact on the average number of working hours at the time was relatively small.

As in the financial crisis, the increase in unemployment has been rapid

The crisis caused by the coronavirus pandemic also resulted in the number of jobless rising suddenly in May 2020. It was only the month before that the Labour Force Survey by Statistics Finland reported that the number of people unemployed was slightly down in the annual context, but by May the number of those out of work was already around 46,000 more than the year before. At the same time, the unemployment rate increased to 8.4%, after which it improved only very slightly to 8.3% (according to the latest information in October). Nevertheless, since May, some sort of recovery in the employment rate has been discernible, and by October it had risen to 71.5% and stood at only 0.5% lower than a year earlier.

However, the sudden rise in the unemployment rate in the spring does not give a complete picture of the effects of the crisis on the labour market, as the furlough scheme tended to dampen the impact. The number of layoffs increased in the spring of 2020 to a record high, affecting almost 164,000 people by the end of April, according to employment statistics from the Ministry of Economic Affairs and Employment. Since then the number of those furloughed has decreased, although in October there were still 58,000 people laid off, which figure is as much as it was at its peak during the financial crisis in April 2009. The unemployment rate has remained virtually unchanged since May, although, if the crisis continues, the risk of people being let go completely increases.

In the Bank of Finland December 2020 forecast, unemployment is expected to rise to an annual rate of 8.3% in 2021, as the pandemic has the effect of reducing companies' turnover. After that, the unemployment rate will fall only gradually, reaching 7.4% in 2023. Because of the recession, there may be a vocational mismatch between the unemployed and job vacancies, which will slow down the reduction in unemployment. For now, the projection gives no indication of a structural change such as that at the time of the financial crisis, when long-term unemployment rose for several years in a row. But even now there is a danger of an increase in structural unemployment if the crisis drags on and there is an increase in long-term unemployment.

The beginning of the financial crisis saw a gradual deterioration in both employment and unemployment from mid-2008. From April 2008 to November 2009 the unemployment rate rose from 6.2% to 8.8%. At the same time, the employment rate fell by 3% to 67.8%. The number of unemployed people soared by 67,000 in July compared with a year earlier.

Both the unemployment rate and the employment rate began to recover after the financial crisis, although the trend came to a halt at the end of 2011. The financial crisis and the structural change in industry that followed it ended the downward trend in structural unemployment. Structural factors and hysteresis meant that it took a long time for employment to recover, and it was not until 2018 that the annual employment rate exceeded 70.6%, which was the figure for 2008.

The participation rate fell after the financial crisis – how is it now?

Changes in the unemployment rate are typically reflected in the activity rate, that is, the percentage of the population of working age in the labour force, since, when there is an economic downturn, some people of working age move from unemployment to being officially inactive. As will be seen from Chart 6, at the start of the present crisis the participation rate fell sharply. According to the Labour Market Survey of Statistics Finland, in the second quarter of 2020, the activity rate for the age range 15-74 was 1.4% lower than at the same time a year earlier. By October, however, the activity rate had recovered to reach virtually the same level as the year before. The participation rate is expected as a whole to pick up in the forecast period and to resume its pre-crisis upward trend.



The trend in employment in different age groups reacts to a recession in different ways

The trend in employment in different age groups reacts to a recession in different ways. The hardest hit by economic decline are typically those at a stage of life where there are more obviously other alternatives to participation in the labour market. Such people are the young, women with families and older people (Grönqvist and Kinnunen, 2009)^[23]. The current crisis, too, has been seen to have a greater than average effect on the employment rate among women and young people. In October, the employment rate for women aged 15–64 was down by 1.2% on the previous year, at 70.4%, while it was up for men by 0.3%, at 72.7%^[24]. On the other hand, the employment rate for young people (aged 15–24) had fallen in October by 5.4% compared with the previous year, whereas the decrease for the age group 15–64 was just 0.5%.^[25]

The participation rate fell sharply at the start of the current crisis. According to the Labour Force Survey by Statistics Finland, the activity rate for those aged 15–74 in the second quarter of 2020 was 1.4% lower than at the same time the previous year. It fell most obviously among those in the 15–24 age range, owing to some extent to the lower number of summer jobs available and the fact that young people tend to work in the service industries. In October, the activity rate for those aged 15–74 had picked up on the whole and almost returned to the level it had been a year before, but the participation rate among young people was more than 4% lower than 12 months previously.

Regarding the participation rate, it is worth noting that, in the short term, a decrease is not problematic in all respects. In recessions, high levels of unemployment reduce the opportunity costs of education/training, and this prompts young people to take part in education and training courses (see, for example, Heylen and Pozzi, 2007)^[26]. Higher levels of education have in the long term a favourable impact on economic growth.^[27] The increase in the number of people starting higher education courses has been a step in the right direction in this respect inasmuch as they tend to relate to sectors where future employment prospects look good. Young people on the labour market also act as a factor for increasing flexibility. When the impact of the crisis fades, young people who have remained active will be qualified and ready to fill posts in the service industries, for example, that will become available afterwards. Of course, a crisis can also have a scarring effect on young people who drift into inactivity.

23. C. Grönqvist & H. Kinnunen (2009) [Taantuman vaikutus työvoiman tarjontaan: 1990-luvun kokemuksia](#) ('Impact of a recession on the supply of labour: experiences from the 1990s') BoF online, 1/2009.

24. Source: Labour Force Survey 2020, October. Statistics Finland.

25. The employment and participation rates for those between the ages of 25 and 34 fell as a result of the financial crisis, but no similar trend has been observed as yet with the present crisis.

The participation rate does not seem to have reacted as strongly in the COVID-19 crisis as it did in the financial crisis, at least not so far. In the financial crisis, the activity rate fell substantially and stayed low for a long time after the crisis. Data in the Labour Force Survey suggest that the participation rate fell from 67.5% in 2008 to 65.3% in 2016. After that it began to rise again, reaching 66.6% in 2019.

The ageing population is having an impact on the trend in the working-age population and, in any case, will reduce labour input in the years ahead. In the aftermath of the financial crisis, the phenomenon of an ageing population was also significant for the recovery, as the number of people aged between 15 and 64 began to fall in 2011. [The demographic structure has reduced the labour force participation rate](#), and this was particularly the case in the years following the financial crisis, when the 'baby boomers' retired.^[28] In this present crisis, meanwhile, the number of those aged between 15 and 74 has dipped, which may cause the participation rate to rise but the labour force to shrink.

In the projection the effects of the coronavirus crisis on productivity growth are less drastic than with the financial crisis

In the Bank of Finland's projection the coronavirus crisis is expected to slow overall productivity growth temporarily. In the initial stage of the crisis, productivity fell dramatically in overall terms (Chart 7), but the recovery is predicted to be relatively swift compared with that following the financial crisis. Labour productivity decreased slightly less and is expected to exceed pre-crisis levels towards the end of 2021. Due to the nature of the crisis, there is much greater uncertainty than usual with the forecasts.

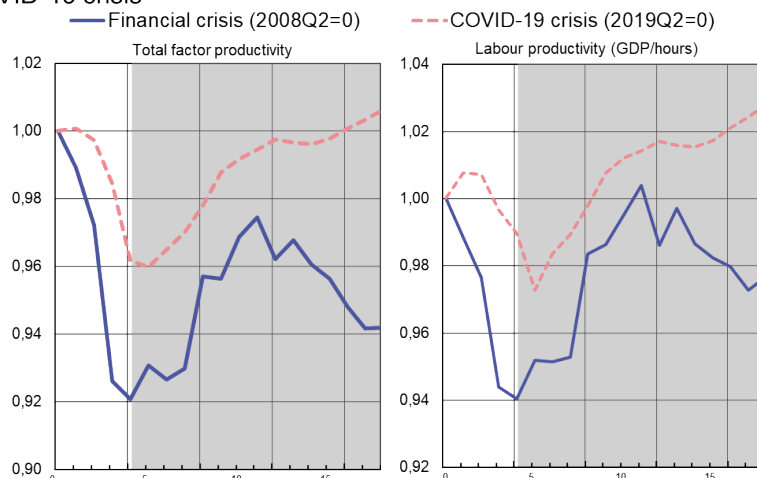
26. F. Heylen & L. Pozzi (2007) Crises and human capital accumulation, *Canadian Journal of Economics* 40:4, pp.1261–1285.

27. Kokkinen (2012), among others, has examined the effects of human capital on economic growth in Finland: [On Finland's Economic Growth and Convergence with Sweden and the EU15 in the 20th Century](#).

28. See Obstbaum, [Demographic change reduces the labour force and number of employed](#). Bank of Finland Bulletin 3/2016.

Chart 22.

In the forecast, productivity growth slows temporarily as a result of the COVID-19 crisis



Sources: Statistics Finland and calculations by the Bank of Finland. In the chart, the baseline prior to the crisis is scaled to a value of 1. The periods on the horizontal axis are the quarters from the start of the crisis. The shaded area for the COVID-19 crisis shows the Bank of Finland projection for the period 2020Q3–2023Q4. 39/31@chart/EN

In Finland, productivity growth was rapid up until the financial crisis but fell sharply as a result of the crisis, and recovery was sluggish. The fall in productivity following the crisis was on the one hand due to structural changes in the electronics and forestry industries, but on the other hand also because of the poor competitiveness of the Finnish economy, both of which factors suppressed production growth for quite some time.^[29]

In the years following the financial crisis, productivity growth was sluggish for a long time both in Finland and elsewhere. The subject has been discussed in the research literature, where it has been found that negative demand shocks can also have long-term consequences for supply, as a result of both labour input and productivity growth. Anzoategui, Comin, Gertler and Martinez (2019)^[30] found that, after the financial crisis, the slow adoption of innovations in the United States was a major reason for poor productivity growth.^[31] The findings of Schmöller and Spitzer (2018)^[32] also suggest that a demand shock was a major factor in poor productivity growth in the euro area in the wake of the financial crisis.

29. Finnish Productivity Board (2019) *Tuottavuuden tila Suomessa: Miksi sen kasvu pysähtyi, käynnistyykö se uudelleen?* ('State of productivity in Finland: What stopped the growth; will it start again?') Publications of the Ministry of Finance 2019:21. There is also an account of the effect of structural change in forestry and the electronics industry by, for example, Borg A. and J. Vartiainen, in *Strategia Suomelle* ('A Strategy for Finland'), Prime Minister's Office Publication Series 5/2015 and OECD Economic Surveys Finland 2014.

30. Anzoategui D., Comin D., Gertler M. and J. Martinez (2019) *Endogenous Technology Adoption and R&D as Sources of Business Cycle Persistence*, *American Economic Journal: Macroeconomics*, 11:3, 67–110.

31. See also Andrews, Dan, Criscuolo, Chiara and Gal, Peter N. (2015) *Frontier Firms, Technology Diffusion and Public Policy: Micro Evidence from OECD Countries*. OECD Productivity Working Papers 2, OECD Publishing.

32. Schmöller M. and M. Spitzer (2019) *Endogenous TFP, Business Cycle Persistence and the Productivity Slowdown*, Bank of Finland Research Discussion Papers 21/19.

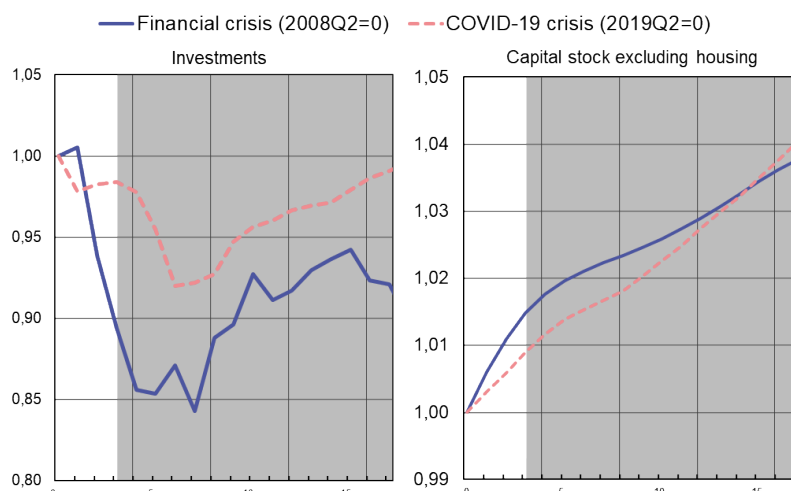
Drop in investment slows increase in capital stock

Crises have a negative impact on the increase in capital stock, both because there is reduced investment and on account of the premature scrapping of capital. Uncertainty weakens investment prospects. In addition, investments may have to be cut for savings purposes, with some investments not going ahead and some being postponed. Chart 8 shows how, in the Bank of Finland's December forecast, the biggest fall in investment comes with a delay because of the slowdown in construction investment currently visible in the numbers of permits issued and new projects.

In the Bank of Finland's December projection, investment is expected to drop by 3% in 2020 and by slightly less in 2021. It is anticipated that investment will pick up towards the end of the forecast period, though progress is bound to be gradual. Furthermore, support measures will have an effect on the way investment recovers, and, for example, the Next Generation EU COVID-19 recovery package will provide support for investment in climate action and digitalisation. Appropriately allocated investment – say in digitalisation – can also promote productivity growth. In Finland, investment in ICT as a share of total investment is below the OECD average.^[33] However, many other indicators for digitalisation, such as that showing the extent to which the ICT sector accounts for all those in work, or that for use of the Internet and broadband by businesses, show that Finland is doing well.^[34]

Chart 23.

Drop in investment temporarily slows increase in capital stock



Sources: Statistics Finland and calculations by the Bank of Finland. In the chart, the baseline prior to the crisis is scaled to a value of 1. The periods on the horizontal axis are the quarters from the start of the crisis. The shaded area for the COVID-19 crisis shows the Bank of Finland projection for the period 2020Q3–2023Q4.

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Investment in the present crisis is not expected to collapse to the extent it did during the financial crisis, when the volume of gross fixed capital formation fell by 12% in 2009 on

33. In its report, *The Size of the Digital Economy in Finland and Its Impact on Taxation*, the Research Institute of the Finnish Economy, ETLA, 2020, shows that the share of value added generated by the digital economy in Finland grew at a relatively slow pace during the 2010s. The value added from digital goods and services comprised 11% of GDP in Finland in 2017, or over EUR 21 billion euros.

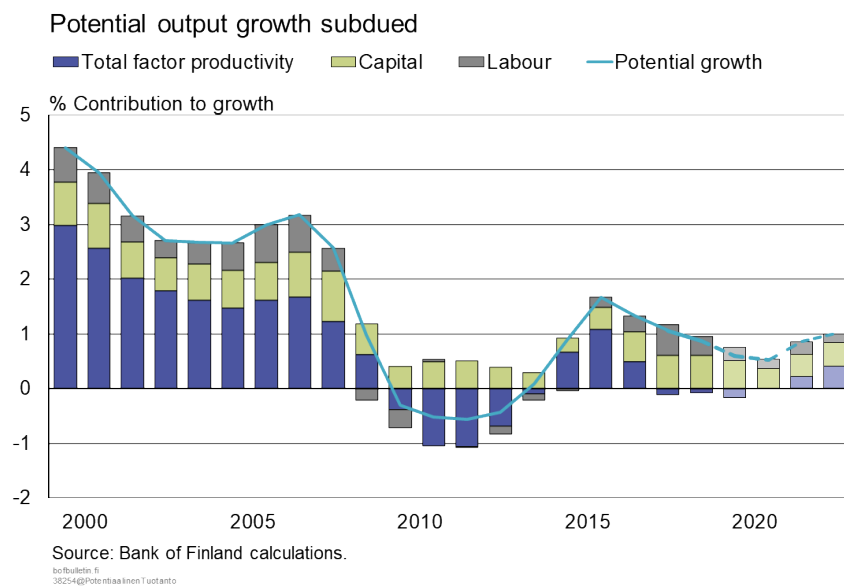
34. OECD (2017) *OECD Digital Economy Outlook 2017*, OECD Publishing, Paris.

the previous year. More than half of the reduced investment returned to previous levels by 2011, but, as with GDP, the volume of investment did not surpass the 2008 figure until 2017. The decline in investment in research and development in particular had a scarring effect on output growth in the medium term.

The COVID-19 crisis has awakened concern of a long-term decline in supply

The European Central Bank^[35] and the IMF^[36], among others, have raised the matter of the possible long-term economic impact of the COVID-19 crisis. Next, we examine the possible channels via which the crisis could affect the trends in labour input, productivity and capital, and at the same time the potential for economic growth in the Finnish context. In the Bank of Finland's December 2020 forecast, potential output growth is expected to slow only temporarily as a result of the COVID-19 crisis (Chart 9). The channels presented are thus in many respects the risks in the forecast that, were they to materialise, could slow the increase in supply factors in the longer term in the way observed in the financial crisis.

Chart 24.



If prolonged, the crisis could have a wide-ranging impact on the labour force

The scarring effects of the crisis for the labour force are mainly related to an increase in long-term unemployment and a downward trend in participation. If long-term unemployment increases and the increase in activity slows, there may be hysteresis effects that slow potential output.^[37] This could in turn lead to a rise in structural

35. Bodnar et al. (2020) *The impact of COVID-19 on potential output in the euro area*, ECB Economic Bulletin 7/2020.

36. IMF WEO economic outlook: A Long and Difficult Ascent, October 2020.

unemployment. If the crisis continues, the likelihood of the sort of structural changes observed during the financial crisis will increase, as the effects of the crisis in some sectors will be long-term or even permanent. This could push up the structural unemployment rate, as the reallocation of human resources will not be a smooth process.

Increased long-term unemployment has a damaging impact on human capital and, consequently, on productivity growth. If unemployment is prolonged, human capital may start to deteriorate, there may be a decline in skills and expertise, and, in addition, labour market engagement may weaken.^[38] An increase in human capital as a result of additional training and education has been a key factor in Finland's long-term economic growth.^[39] For this reason, we should pay attention to the importance of human capital growth for the economy across business cycles.

The COVID-19 crisis may have an impact on trends in the working-age population as a result of patterns of labour mobility and migration. For example, the OECD expects international migration movements to remain at an all-time low in OECD countries in 2020, and mentions that there are many signs that mobility will not return to pre-crisis levels for a long time.^[40] A reduction in immigration to Finland would mean that the decline in the number of people of working age would accelerate further. Reduced mobility might also have an impact on productivity growth, especially in sectors of high productivity, where the availability of foreign specialists and experts is important.

If prolonged, the COVID-19 crisis may slow the increase in the participation rate. The crisis has hit service industries that predominantly hire female workers very hard, and if the effects drag on, the participation rate for women may well start to fall. The recession and changes to economic structures could also speed up the rate at which older people withdraw from the labour market and retire.^[41] The probability that older people will return to work is small, so the effects could be long-term. The risk of youth exclusion could also grow, which would have other harmful consequences and a major adverse impact on the participation rate.

If the COVID-19 crisis accelerates the trend in digitalisation and automation, some old jobs are in danger of disappearing. The OECD estimates that as many as a quarter of jobs in Finland will in the next few decades be at risk because of the increased use of

37. The subject of hysteresis effects in the context of demand-driven recessions has been dealt with by, inter alia, Furlanetto et al. (2020) *Estimating hysteresis effects*, VoxEU; Cerra, Valerie, Fatas, A. and Saxerna, Sweta Chaman 2020. *Hysteresis and Business Cycles*, IMF Working Papers 20/73, International Monetary Fund; Kozłowski, Julian, Veldkamp, Laura and Venkateswaran, Venky 2020. *Scarring Body and Mind: The Long-Term Belief-Scarring Effects of COVID-19* Working Papers 2020-009, Federal Reserve Bank of St. Louis, revised 14 Apr 2020.

38. See, for example, Finnish Productivity Board (2020) *Tuottavuus ja kilpailukyky Suomessa* ('Productivity and competitiveness in Finland'). Publications of the Ministry of Finance 2020:81.

39. Kokkinen (2012) *On Finland's Economic Growth and Convergence with Sweden and the EU15 in the 20th Century*.

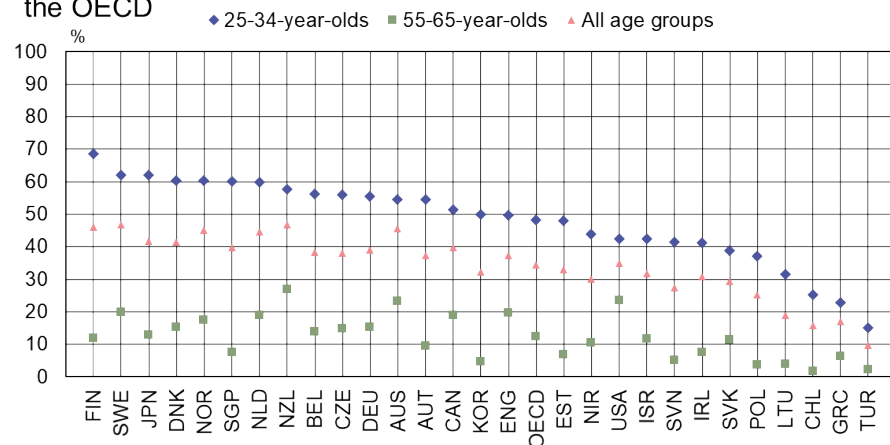
40. OECD International Migration Outlook 2020.

41. The 'fast track to retirement' reduces the incentive for older unemployed people to seek work, and, on the other hand, makes it more likely that they will remain unemployed. See, for example, *Työttömyysputken lyhentäminen lisäsi ikääntyneiden työllisyyttä* ('Shortening the period of extended unemployment benefits increases employment among older workers'), and Kyrrä & Pesola (2020) Long-term effects of extended unemployment benefits for older workers. *Labour Economics* 62.

automation. It would appear, however, that Finland is in a better position compared with other OECD countries.^[42] The OECD takes the view that, in Finland, people (particularly between the ages of 25 and 34) are better prepared for the digital workplace than is the case in other OECD countries. And if all age groups are examined, Finland is generally among the best in the OECD (Chart 10).

Chart 25.

Young adults in Finland are the best prepared for the digital economy in the OECD



Share of 25-34-olds and 55-65-year-olds performing at level 2 or 3 in problem solving in technology-rich environments.

Source: Survey of Adult Skills (PIAAC) 2015.

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Investment and the destruction and consumption of capital

The crisis will have an adverse impact on capital as a result of reduced investment and capital destruction. Uncertainty, in particular, will have a harmful effect on investment, which will either be postponed or cancelled altogether.^[43] Firms may also have to cut investment to make savings. The negative effects will mainly be felt in the sectors that suffered most during the crisis, as capital will be allocated to those industries that were able to continue to operate. The crisis may have a lasting impact in particular on sectors that had benefited from globalisation, such as hotels and catering, travel and tourism, and transport.

With closures and bankruptcies, some capital will be destroyed prematurely. The number of bankruptcies during the COVID-19 crisis in Finland has not as yet begun to grow. A partial explanation for this, according to the information available at this time, is the temporary amendment to the Finnish Bankruptcy Act in force until the end of January 2021. This restricts bankruptcy proceedings in respect of a debtor on application by a creditor. The aim of the amendment is to ensure that companies do not have to file for

42. OECD (2018) OECD Economic Surveys: Finland 2018, OECD Publishing, Paris, https://doi.org/10.1787/eco_surveys-fin-2018-en and OECD (2017), OECD Employment Outlook (2017) OECD Publishing, Paris, https://doi.org/10.1787/empl_outlook-2017-en.

43. Crises can also have a scarring effect on expectations, with a long-term impact. See, for example, Kozłowski, Julian, Veldkamp, Laura and Venkateswaran, Venky (2020), The Tail That Wags the Economy: Beliefs and Persistent Stagnation, *Journal of Political Economy*, University of Chicago Press, vol. 128(8), pages 2839–2879.

bankruptcy if their problems of insolvency can be resolved after the COVID-19 epidemic has ended. If there is a wave of bankruptcies after the amendment has expired, this could have a major impact on employment and economic growth and result in capital destruction. Fallen capacity utilisation rates as a result of the crisis could nevertheless partly slow down the consumption of capital.^[44]

The decline in investment in research and development would have especially scarring effects on productivity growth in the medium term, which proved to be the case in the 2010s. If the COVID-19 crisis has similar long-lasting adverse impacts, particularly for investment in product development, productivity growth could slow even further and for the long term as a consequence of this current crisis also.^[45]

Reallocation of resources a key role in productivity growth

The COVID-19 crisis may also have a significant impact on productivity growth. This will take several forms and directions. Prolonged supply chain disruptions and increased protectionism will weaken productivity growth. On the other hand, a favourable scenario presents itself in the shape of increased digitalisation, as, for example, the adoption of new technology makes it possible to work from home. The crisis has compelled businesses to introduce new practices that could support productivity growth.

After the COVID-19 crisis it will be hugely important that resources be reallocated to strengthen growth in employment and productivity. Recessions can have a cleansing effect in the shape of creative destruction, if the effects of the crisis are felt by the least productive companies. The resources in 'zombie' companies, where productivity is weak, are used inefficiently, which can contribute to a slowdown in economic growth, constrict the market, and limit the growth of more productive enterprises.^[46] However, there is a very great deal of uncertainty associated with the rate at which resources can be reallocated and how effectively this can be achieved. For example, taking workers out of low-productivity service industries and finding them employment in the ICT sector will mean retraining, and the process will hardly be smooth.

The establishment of new companies speeds up economic growth as a result of accelerated employment and productivity growth. Their arrival on the scene also promotes the reallocation of resources and fosters creative destruction.^[47] In recessions,

44. The slowdown in capital consumption would soften the fall in the growth rate of the capital stock as a result of the reduction in investment. Nevertheless, this may only be a factor of minor relevance. For example, information technology, whose share of capital it is assumed will increase even further on account of the crisis, becomes obsolete quickly, regardless of use.

45. Ikonen, P, Oinonen, S, Schmöller M and Vilmi, L (2020) [Corona crisis has increased the risk of stagnation in the euro area](#). Bank of Finland Bulletin 5/2020.

46. See, for example, Adalet McGowan et al. (2017) [The Walking Dead? Zombie Firms and Productivity Performance in OECD Countries](#), OECD Economics Department Working Papers No. 1372; Vanhala J. and Virén, M (2018) [Are weakly profitable firms suppressing economic growth?](#) Bank of Finland Bulletin 3/2018; Nurmi S., Vanhala J. and Virén, M. (2020), [The life and death of zombies – evidence from government subsidies to firms](#), Bank of Finland Research Discussion Papers 8/2020; Banerjee, R. and Hofmann, B. (2018) [The rise of zombie firms: causes and consequences](#), BIS Quarterly Review, September 2018.

47. See, for example, J. Kilponen (2017) [Yritysdynamiikka ja makrotalous – luovan tuhon merkkejä etsimässä](#), ('Business dynamics and macroeconomics – in the search for signs of creative destruction'). BoF Economics

however, there is a significant decline in the creation of new companies, and that tends to slow any increase in employment or productivity.

Conclusions

The background to the COVID-19 pandemic differs significantly from that of the financial crisis, and the greatest impact has been felt in different sectors from those most affected by the financial crisis. When the pandemic began, the economy had already cooled, regardless of any global crisis. Although both recessions have had a widespread impact, it is the service industries that have particularly suffered from the pandemic-driven recession. The estimate for the output gap based on the principal component analysis we have presented shows that the decline in activity in the service industries had a huge impact on the sudden widening of the output gap in the spring, when COVID-19 hit the country.

In the Bank of Finland's December forecast, the COVID-19 crisis is not expected to be as deep as the financial crisis and recovery is expected to be faster. According to the projection, it is thought that the current crisis will slow potential economic growth temporarily in the next few years, but in the medium term there will be a return to pre-crisis growth rates. A slower recovery such as that experienced after the financial crisis would require expectations that differed from the baseline projection regarding, for example, the spread of the pandemic or major structural changes. But there is uncertainty with forecasts, and if the crisis continues it could have a long-term, adverse impact on employment, the capital stock or productivity.

Tags

service sectors, potential output, output gap, financial crisis, COVID-19, corona crisis

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Review 3/2017.

Attention should already be turned to the post-crisis years

Today – Bank of Finland Bulletin 6/2020 – Finnish economy

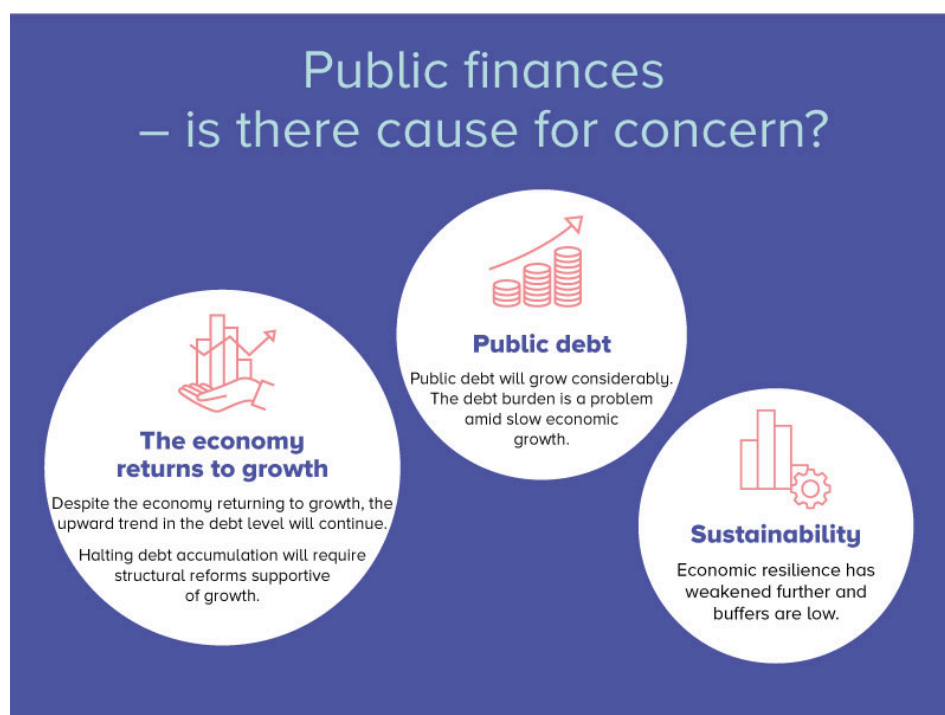
During the acute phase of the COVID-19 pandemic, fiscal policy has been deployed to support households and businesses hit by the crisis. At the same time, fiscal stimulus has been stepped up to bolster economic recovery. After the crisis, once the economy has returned to a sustainable growth path, the upward trend in the public debt-to-GDP ratio must be halted and fiscal space rebuilt. Changing the course of the public finances will require broad consensus on long-term objectives, clear short-term interim targets, and concrete measures over the coming years. With the coinciding rise in age-related expenditure, rebalancing the public finances will be difficult.



The medium-term fiscal outlook has deteriorated

The duration and economic impact of the COVID-19 pandemic are still surrounded by great uncertainty. Despite growth recorded for the third quarter, there will be no swift rebound from the recession of the early part of the year, as the second wave of the pandemic has also intensified in Finland. The necessary measures to combat the epidemic and to support firms and households have led to a strong increase in public expenditure. At the same time, policymakers have turned their attention to the future and have employed fiscal measures – for example increases in public investment – to support economic recovery in the immediate years ahead. Even though Finland has weathered the pandemic relatively well compared with many other countries, there are a number of question marks about the forthcoming recovery phase. A particular concern is

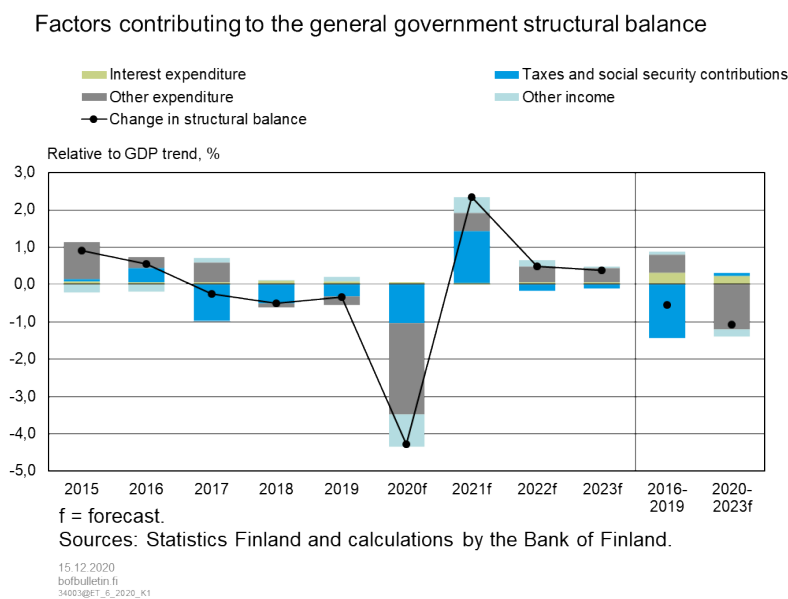
whether the recession will have long-term consequences for the labour market, economic growth and the public finances.



Finland's general government finances entered the pandemic in a notably weaker state than going into the global financial crisis in 2008. Finland already ran a structural deficit before the pandemic, which grew in 2017–2019 (Chart 1). Finland's fiscal balance was therefore weaker than in the other Nordic countries. In Sweden and Denmark, the public finances were structurally balanced or in surplus long before the pandemic, and the general government debt-to-GDP ratio was just over 30%.

Finland's structural deficit had persisted at around 1% already since the global financial crisis. In 2010–2015, the surplus on the social security funds (pension funds) contracted rapidly in response to the retirement of the baby boomers. After 2015, the surplus stabilised while the central and local government deficits declined by about half. Considering the cyclical situation, however, the aggregate general government deficit shrunk less than expected. Although the previous government implemented fiscal austerity measures, the reductions in taxes and social security contributions to stimulate economic activity reined in public revenue growth. In consequence, by 2019, the general government structural deficit had grown to about 1½% relative to GDP.

Chart 26.



Despite the fiscal deficit, the public debt-to-GDP ratio began to decline in 2016, falling in total by over 4 percentage points to 59.3% in 2019. This was modest compared with the debt ratio's growth of over 30 percentage points in 2009–2015. The fall in the debt ratio mainly reflected the contribution of faster economic growth to the ratio, combined with a decline in interest payments on public debt.

Finland's fiscal balance will be notably weaker in the coming years than estimated just a year ago, before the pandemic. The current forecast suggests that the general government deficit will, after the sharp increase in 2020, only contract to about 2.5% in 2023–2025. The structural deficit, too, will grow in 2020 on account of the substantial fiscal stimulus in the acute phase of the crisis, but will shrink in the following years. Despite this, the structural deficit will continue at higher levels than prior to the pandemic.

Fiscal policy will remain supportive of growth

Setting the appropriate fiscal stance for the state of the economy will require careful consideration in the coming years. In times of an acute pandemic, fiscal policy must support firms and households in overcoming the crisis in order to minimise permanent damage from lockdowns and a temporary decline in aggregate demand. The Finnish Government, for its part, has implemented a number of support measures, and some of these will be continued in 2021. At the same time, the automatic fiscal stabilisers will operate, i.e. public expenditure will rise automatically on account of increasing unemployment and social security spending while tax revenues decrease.^[1] Fiscal policy will therefore be highly supportive of growth in 2020.

1. On a European level, automatic stabilisers play an important role in Finland. See: Automatic fiscal stabilisers in the euro area and the COVID-19 crisis. ECB Economic Bulletin, Issue 6/2020.

Fiscal policy has already shifted to supporting aggregate demand through increased public investment. Measures to compensate for losses in total output – especially investments and other expenditure increases which also facilitate long-term economic growth – are now useful and timely. In this situation, there should be no new permanent expenditures in order to avoid hindrances to the fiscal consolidation phase ahead. Fiscal policy will tighten in technical terms in 2021 on the back of withdrawal from some support measures and a decrease in direct additional spending on health care. Nevertheless, the public finances will remain firmly in deficit. In the course of 2020, public expenditure has increased in total by about EUR 5 billion due to crisis management and support measures. On top of this comes the temporary reduction of over EUR 1 billion in earnings-related pension contributions, which has been implemented using the EMU buffer of the earnings-related pension system. In 2021, the costs from the measures will decrease to some EUR 2 billion. The EU's recovery instrument, in turn, can be utilised starting from 2021, and it will bring financial support to Finland in an estimated total amount of EUR 3 billion in 2021–2026.

The EU recovery instrument will channel EUR 750 billion to structural reform measures and related investments supporting recovery and growth in the EU economies. Of the total financial support, EUR 390 billion will be disbursed to Member States as grants and EUR 360 billion as loans. The recovery instrument will be financed via EU borrowing, and debt repayment will begin as late as 2028 and extend over a period of 30 years. The largest part of the funds will be allocated based on Member States' standard of living, population and unemployment rates, and later also based on the economic fallout from COVID-19. The Finnish Government has outlined the use of the funds in the Sustainable Growth Programme for Finland, which is to be finalised in spring 2021. The funds will be primarily directed at measures supporting green transition and digitalisation.

Because of the uncertainties related to the evolution of the pandemic, economic forecasts are also subject to exceptional uncertainty at present, and it is therefore not yet possible to assess exactly when fiscal policy should shift from expansionary to strengthening the general government fiscal balance. According to the Bank of Finland's December 2020 forecast, Finnish economic growth will reach the level of potential output again in 2023, when fiscal policy, too, should already be geared towards rebalancing the public finances.

Debt is easy to come by but difficult to get rid of

Finland's general government debt-to-GDP ratio will grow rapidly in 2020–2021, by around 13 percentage points, and will continue to rise to about 76% in 2025. According to the European Commission's November 2020 forecast, the euro area average debt-to-GDP ratio will rise to over 102% by 2022. Although Finland's debt ratio will continue to persist at levels below the euro area average, it is alarming that public debt will also continue to grow in the medium term.

Interest rates on public debt have declined on a broad front in the euro area countries in recent years, reflecting a fall in the general level of interest rates and the ECB's monetary policy purchases. In Finland, for example, interest expenditure on the public debt was 1.4% relative to GDP in the pre-crisis year 2007. Even though the public debt ratio has doubled since then, interest expenditure relative to GDP was only 0.8% in 2019. As

maturing debt is rolled over at lower interest rates, interest expenditure is expected to fall further to 0.6% by 2023.

As regards the evolution of the debt-to-GDP ratio, it is important, firstly, how much new debt is needed to cover interest payments on existing debt and the rest of the general government deficit, and, secondly, how fast GDP – the denominator of the debt ratio – grows. If the general government primary budget position is sufficiently close to balance, debt dynamics are mainly determined by the difference between these two factors, i.e. the interest rate-growth differential. If the interest paid on public debt is at a notably higher level than the growth rate of the economy, the debt ratio will rise. If it is lower, however, even a high debt ratio may, in the long term, converge to a sustainable level.

The European Commission's autumn 2020 forecast suggests that the interest rate-growth differential will be negative in all euro countries in 2021–2022. In two out of three euro area countries, the debt ratio will therefore begin to decline already in 2022. During these two forecast years, the aggregate euro area debt ratio will fall by 6.7 percentage points on account of the interest rate-growth differential. In Finland, the differential would contribute to reducing the debt ratio by 4.5 percentage points in 2021–2022. A favourable interest rate-growth differential is an exception by historical standards, however.^[2] There are grounds to expect that the differential will return to adding to the public debt burden in the future.

The interest rate-growth differential has been found to depend on the level of public debt. A higher debt burden means higher investor return requirements. At the same time, a high level of public debt and concerns over its sustainability imply greater volatility in sovereign yields in the event of economic disturbances. The COVID-19 pandemic was encountered in a situation where non-standard monetary policy instruments were still in use and, on the other hand, euro area countries' sovereign debt levels were still high following the financial crisis. Therefore, one of the monetary policy measures taken in response to the pandemic crisis was to expand the sovereign bond purchase programme, which in turn contributed to narrowing the spread between euro area government bond yields. This has enabled the conduct of a more active fiscal policy. Once monetary policy returns towards normal times, government bond yields will be subject to upward pressure, especially if there are doubts about the sustainability of public debt.

Finland's general government debt-to-GDP ratio was almost halved after the 90s recession in 1995–2008 (Chart 2). During this consolidation phase, the contractionary effect that economic growth had on the debt ratio (GDP in the denominator) was equal in size to the expansionary effect from interest expenditure. Therefore, correcting the imbalance between central and local government revenue and expenditure played a major role in the reduction of public debt. Another perspective to the consolidation phase is that although the central and local government, including also interest expenditure, were still in deficit, the debt ratio's decline was the result of strong economic growth.

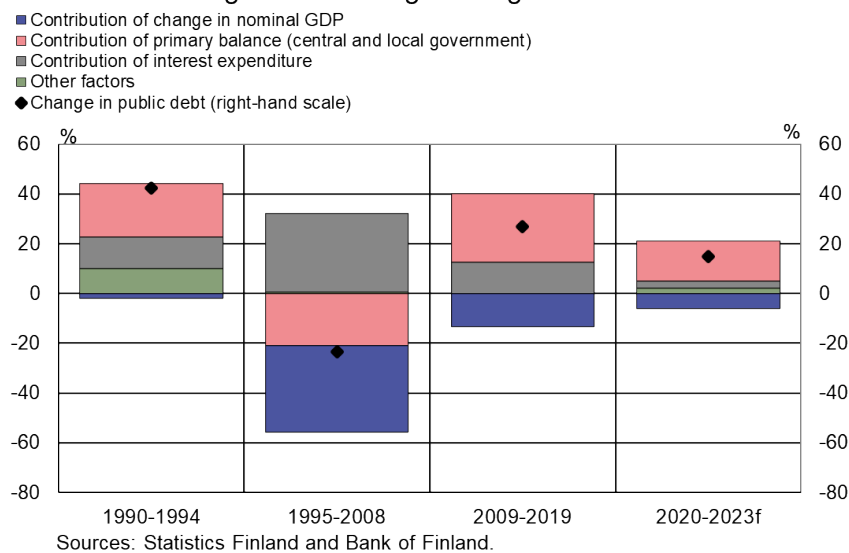
Finland's public debt-to-GDP ratio returned to growth after the financial crisis. The

2. Checherita-Westphal, C. – Semeano, J. (2020) Interest rate-growth differentials on government debt: an empirical investigation for the euro area. ECB Working Paper Series No 2486 / November 2020.

prolonged period of slow economic growth in the aftermath of the crisis led to an almost doubling of the debt ratio. The ratio began to fall only in 2016, albeit very slowly. In 2009–2019, interest expenditure declined despite the rising debt level on account of a general fall in interest rates. During the same period, the central and local government finances were chronically in deficit.

Chart 27.

Factors contributing to Finland's general government debt ratio



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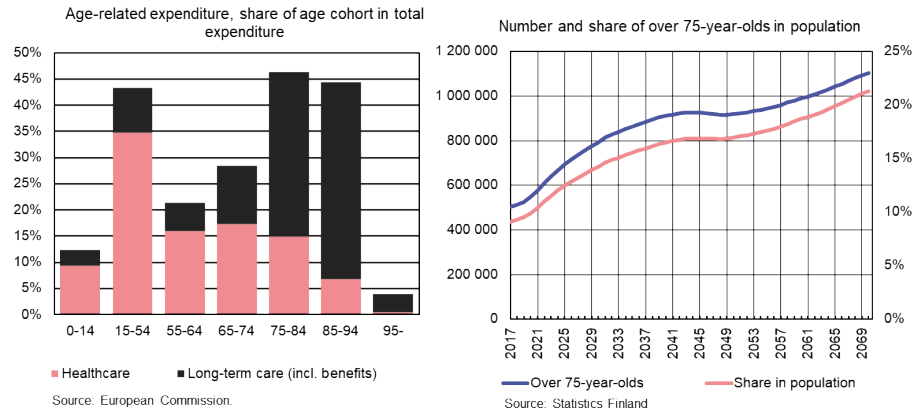
After the COVID-19 pandemic, public debt will rise to a new level also in Finland. Although the interest burden on public debt is expected to ease further in the coming years, economic growth is anticipated to remain slow over the longer term. Therefore, stabilising or reducing Finland's debt ratio will very likely require active measures to improve the balance of the public finances.

Fiscal sustainability gap larger than before

Finland's general government debt position is set to deteriorate further as a result of the the COVID-19 pandemic. With population ageing, the working-age population will decline and economic growth will moderate, while age-related public expenditure will increase. The number of persons aged over 75 will grow rapidly over the next decade (Chart 3). It is well known that there will be a great need for long-term care, especially for those over 75, and meeting these service needs will necessitate significant financial efforts. Without corrective measures to slow public expenditure growth, the general government debt will continue to expand and reach an unsustainable level over time.

Chart 28.

Age-related public expenditure will grow

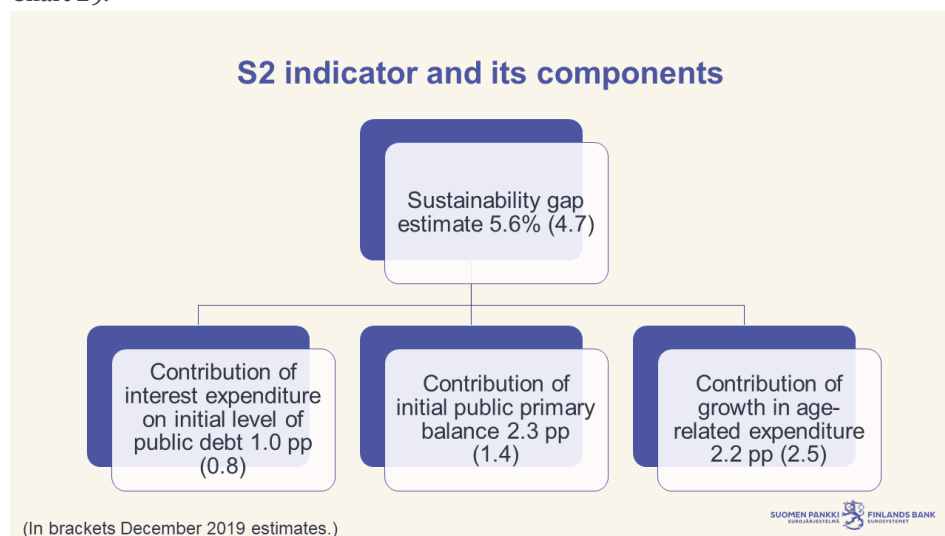


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The long-term sustainability of the public finances is measured by the S2 indicator, which summarises in a single figure the extent to which the fiscal balance should be improved in the base year of the calculation for public debt not to increase in an uncontrollable manner in the future. The S2 indicator is not a feasible policy guideline as such, as the correction it indicates could result even in a relatively steep and unnecessarily sizable debt reduction in the long term. Nevertheless, the indicator gives an indication of the scale of the fiscal sustainability challenge.

Because of the fiscal deterioration caused by the COVID-19 pandemic, Finland's sustainability gap is larger than previously assessed, at 5½% relative to GDP. The year-earlier figure was about one percentage point lower. The current higher estimate was most affected by the weaker general government primary balance for the calculation's base year 2025. The higher level of public debt also contributed to increasing the estimated sustainability gap via increased interest expenditure.

Chart 29.



The interest rate assumptions of the calculation have been revised from a year earlier. Accordingly, the nominal interest rate on public debt and the nominal return on assets held by pension funds are expected to reach their long-term levels of 5.0% and 5.5%,^[3] respectively, only by 2040, while the previous assumption was by 2035. The revision increased the estimated sustainability gap by just under 0.2 percentage points, as pension fund returns provide a larger contribution to fiscal sustainability than the interest rate on public debt.

Fiscal policy objectives in the short and long term

Finnish governments have paid attention to safeguarding long-term fiscal sustainability since the early 2000s. During the most recent parliamentary terms, governments have also set shorter-term objectives for the budget balance and debt in government programmes and annual general government fiscal plans. In the latter and the Finnish stability programme, the objectives are set as required by the European Semester, and they apply to all general government sub-sectors, i.e. central government, local government and social security funds. The setting of objectives has also enabled closer monitoring of fiscal policy, carried out by the National Audit Office of Finland as an independent fiscal supervisor.

In the current Government's programme, the objectives for the parliamentary term were that, given normal global economic circumstances, Finland's general government finances would be in balance and the public debt-to-GDP ratio would decrease at the end of the parliamentary term. Reaching the 75% employment rate target was a key factor in achieving these objectives. However, even before the COVID-19 pandemic, forecasts suggested that achieving the fiscal objectives seemed uncertain.

Due to the exceptional uncertainty caused by the pandemic, these objectives were no

3. The assumption about the long-term level of return on pension fund assets is the same as that in the long-term projections of the Finnish Centre for Pensions.

longer included in the spring 2020 General Government Fiscal Plan. It is already clear that the fiscal balance will deteriorate during the COVID-19 crisis to such an extent that the objectives will have to be set from a new starting point next spring. At that point, consideration should already be given to the concrete additional measures required to achieve the objectives and the timing of these measures.

In June 2020, the Government specified that the main objective in strengthening the public finances was to stabilise the general government debt-to-GDP ratio by the end of the decade. Achieving this target would require an adjustment of about EUR 5 billion in the budget balance.

In the same context, the Government published a ‘sustainability roadmap’^[4] outlining the measures to be taken to address the challenges to fiscal sustainability. The packages of measures presented in the sustainability roadmap seek to strengthen the public finances by a total of EUR 4.5 billion by the end of the decade. The health and social services reform targets cost savings of EUR 0.5 billion. Measures to improve employment aim to raise the number of persons employed by 80,000 and thereby strengthen the public finances by EUR 2 billion. Other measures supporting economic growth, such as wage moderation and measures related to competitiveness and R&D, aim at improving the public finances by EUR 1 billion. In addition, through higher productivity in public services provision, achieved by e.g. promoting digitalisation, the Government targets cost savings of EUR 1 billion.

Some of the proposed objectives are already well known from the previous governments’ programmes. For example, a nominal employment-rate target has been in government programmes since the late 1990s. The employment target has been set somewhere between 70–75%, and the target horizon has been either the end of the parliamentary term or a longer period. The target (increase in the number of persons employed or the employment rate) has only been reached by two of the five governments in 2007 and 2019. After the financial crisis, the governments have also largely failed in reaching their fiscal targets.

The health and social services reform has long been under preparation, but has proven difficult to design in such a way that the reform would definitely curb cost growth. The reform also involves costs in the transition phase, and cost savings can be expected in the 2030s at the earliest.

Structural reforms promoting employment, competitiveness and the efficiency of public service provision are of utmost importance. However, structural measures sometimes take effect only after a long lag, and the success of the measures cannot always be guaranteed during a single parliamentary term. Therefore, fiscal objectives for a single parliamentary term cannot depend on the results of structural reforms alone.

The structural reforms sought by Prime Minister Marin’s Government require a number of additional financial injections that will at least temporarily raise public investment or other public expenditures. If the reforms fail or otherwise have a smaller impact than

4. The Roadmap for strengthening the sustainability of public finances was further elaborated on 16 September 2020, see: <https://valtioneuvosto.fi/documents/10616/37498572/Kest%C3%A4vyystiekartta.pdf> (in Finnish).

preliminary estimated, the fiscal balance will not ultimately strengthen as expected. Instead, after the additional injections, the net public debt will be even larger. Therefore, the uncertainty related to the achievement of structural objectives should be taken into account. Similarly, it should be ensured that the short-term objectives for the general government budget balance and debt will be met irrespective of the investments in structural reforms.

An approach such as the sustainability roadmap to the sustainability problem may be useful if future governments can also be committed to at least the targeted stabilisation of the debt-to-GDP ratio. As health care and long-term care already require an increasing amount of resources each year, attaining a balanced budget position will be more difficult every passing year. Therefore, going forward, greater emphasis should consistently be placed on short-term objectives and their attainment. Long-term challenges require short-term milestones.

Fiscal objectives supported by fiscal rules

Although it is not relevant at the moment to address the fiscal strain caused by the COVID-19 pandemic, preparations should be made for the upcoming consolidation phase. The post-financial crisis period already demonstrated how difficult it is to rebalance the public finances in an environment of slow economic growth and annually rising age-related expenditure. As Finland's long-term economic growth is projected to remain slow for structural reasons, the question arises whether the fiscal policy tools currently deployed are sufficient in the consolidation phase. Since rules-based fiscal policy has been found to best contribute to the sustainable management of the public finances, compliance with and possible strengthening of domestic fiscal rules would support future fiscal consolidation.

Finland's fiscal policy is guided by the EU's common fiscal rules as well as domestic legislation and practices. Of the domestic practices, the most important is the central government spending limits procedure. The system has been consistently refined, but its application naturally involves political discretion. The 2011 Budgetary Framework Directive and the Fiscal Compact agreed in 2012 were implemented in Finland through the Fiscal Policy Act (869/2012) and the Government Decree on the General Government Fiscal Plan (120/2014). With this package, Finland committed to setting a medium-term objective for the general government structural balance and compatible multiannual targets for nominal budget balances for the aggregate general government sector and its subsectors.

The EU fiscal rules are based on the EU Treaty and the Stability and Growth Pact (SGP). In the spring, the finance ministers of the EU Member States decided, on a proposal by the European Commission, to activate the general escape clause of the SGP, meaning that Member States were permitted to deviate from the adjustment requirements under the EU fiscal rules. However, the activation of the clause does not prevent the initiation of excessive deficit procedures. Departure from the requirements is temporary, but so far there has been no announcement of how long the general escape clause remains in effect.

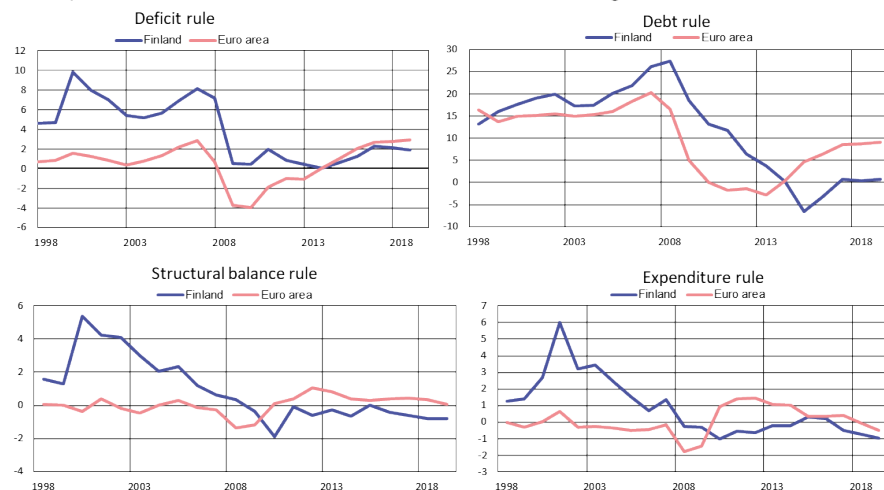
The European Fiscal Board (EFB) has collected data on EU Member States' compliance

with the EU fiscal rules before the COVID-19 pandemic.^[5] The data examines compliance with the rules in a purely numerical manner: a positive value indicates achievement of the reference value set for a rule and therefore compliance with the rule; a negative value a shortfall and non-compliance. The data focuses on compliance with four fiscal rules: the deficit rule, debt rule, structural budget balance rule and the expenditure rule. Of these, the last two have only been introduced in 2005 and 2011, but here they are examined throughout the period 1998–2019. It should also be noted that in the end the rules are not specific, but that the European Commission has discretion when making its overall assessment of compliance with the rules.

Based on the EFB data, Finland has largely complied with the EU fiscal rules very well (Chart 5). Before the financial crisis, Finland’s public finances operated best within the limits set by the rules.^[6] Since the financial crisis, however, the situation has clearly changed, and compliance with the rules has become more demanding for Finland. Since 2008, Finland’s compliance with the rules has been around 55%. Finland has not exactly achieved the structural budget balance target since 2009, even though the target has been enshrined in domestic legislation.

Chart 30.

Compliance with fiscal rules has become more demanding for Finland



The charts plot the deviation of the actual value of a target variable from the reference value set for a rule, i.e. a positive value indicates compliance with the rule, a negative value non-compliance. The figures are in percentage points.
Source: EFB Compliance Tracker.
5.12.2020 eurojatalous.fi 39754@Yhdistelmä

Expenditure rules have been identified as the most effective fiscal policy rules guiding the management of the public finances.^[7] The Finnish central government spending limits system can be classified as one kind of an expenditure rule. The system has been found to

5. Larch, M. – Santacroce, S. (2020) Numerical compliance with EU fiscal rules: The compliance database of the Secretariat of the European Fiscal Board.

6. It should be noted that in Finland, general government also includes private employee pension institutions whose relatively large surplus, especially before 2008, facilitated the achievement of the deficit rule, in particular. Since then, with the acceleration of pension expenditure growth, compliance with the expenditure rule has been more difficult.

7. Belu Manescu, C. – Bova, E. (2020) National Expenditure Rules in the EU: An Analysis of Effectiveness and Compliance. European Economy Discussion Paper 124, April 2020.

have worked relatively well in Finland, and it has been fine-tuned over time. The COVID-19 crisis forced Finland to abandon the spending limits in 2020 and, in part, also in 2021. Appropriations into the management of the pandemic and, in part, support measures were made regardless of the limits. However, the Government has announced that it will return to adhering to the spending limits which were decided before the crisis.

As part of the spending limits system, the Government introduced an ‘exceptional situation mechanism’ in the Government Programme for serious economic disturbances. The mechanism was activated because of the COVID-19 pandemic in June 2020. The mechanism allows an increase of EUR 1 billion in government expenditure over a period of two years, i.e. EUR 500 million a year in 2021–2022.

Returning to the spending limits is an important element in the fiscal consolidation phase coming ahead. On the other hand, the problems encountered in achieving the fiscal targets following the financial crisis suggest that the system might warrant further development. It should be ensured that the expenditure ceiling is set to a level compatible with the medium-term fiscal objectives and domestic and EU fiscal policy rules. After all, expenditure within the spending limits cover only about 80% of central government spending, meaning a large share of public expenditure is excluded.

Compliance with fiscal rules has been found to be more difficult if the general government sector is fragmented.^[8] In Finland, expenditure by central government, local government, employment pension schemes and other social security funds accounted respectively for 26%, 40%, 20% and 14% of consolidated total general government expenditure in 2018. The Finnish spending limits system sets a ceiling for local government expenditure, but it only limits the impact on expenditure of the tasks given by the state to municipalities. In the context of the health and social services reform, in the General Government Fiscal Plan the financing of the ‘wellbeing services counties’ would be adjusted taking into account the long-term sustainability of the public finances.^[9] When a larger proportion of public spending can be examined in a centralised manner, it is also possible to better manage public expenditure as a whole.

During the current and previous parliamentary term, governments have included key projects or future-oriented investments to the spending limits for the interim years of the parliamentary term. This has enabled temporary expenditure increases in targets that governments have considered important. The expenditure increases have been financed, or the intention has been to finance them, through revenue from the sale of state-owned assets. The spending limits have also been circumvented through various arrangements where assignment of shares has been used to cover expenditure increases deemed necessary.^[10] From the perspective of the general government net asset position, asset sales are comparable to debt accumulation. There may well be grounds for asset sales, but it also means a reduction in the return on assets, thus weakening the state’s net financial position. Any disposal of public assets should be based on a thorough

8. European Fiscal Board (2019) Assessment of EU fiscal rules with a focus on the six and two pack legislation. August 2019, p. 30.

9. Government proposal on Acts related to the health and social services reform, 14 October 2020.

10. Kehysjärjestelmän kehittäminen vaalikaudelle 2019–2023. Valtiovarainministeriön julkaisuja 2019:33 (in Finnish and Swedish only).

consideration and a long-term plan.

Now that the fiscal balance is deteriorating, decisions on temporary expenditure increases, too, should be made with careful consideration. A step in this direction is that the Government has announced its intention to use the EU's recovery instrument to finance some of the future-oriented investments that are in line with Finland's recovery plan. The Government has also stated that some of the future-oriented investments will be reconsidered once the situation has changed. However, refraining from spending increases alone will hardly be enough to consolidate the public finances in the coming years.

Risks to the public finances will increase

Although Finland's public debt is still below the euro area average, Finland's contingent liabilities are the largest among the EU countries.^[11] Contingent liabilities include central government loans and guarantees, and the latter of these totalled about 25% relative to GDP in 2019. About half of the guarantees are associated with export financing granted through Finnvera. As a support measure related to the COVID-19 crisis, these guarantees have been significantly increased. At the same time, the Government has had to prepare the budget taking into consideration an increase in compensation to Finnvera arising from credit losses. Export financing has focused in particular on cruise ship deliveries. As the cruise industry is one of the industries severely affected by the pandemic, the probability of realisation of the risks inherent in these liabilities has increased.

The COVID-19 pandemic hit Finland before the public debt-to-GDP ratio could be significantly reduced after the financial crisis. The substantial fiscal stimulus in response to the pandemic will leave a long-lasting scar on the management of the public finances in many other countries, too. Although the interest rate on public debt is low and market confidence in Finland's debt servicing capacity is good, measures to stabilise debt are important to maintain that confidence. Recessions are a recurring phenomenon, and we must be prepared for them. There is a risk that the debt level will rise more during recessions than can be reduced during upswings, in which case debt accumulates and will become increasingly larger in size relative to the carrying capacity of the economy. Such a development will eventually raise doubts about Finland's debt sustainability.

Tags

[public finances](#), [public debt](#), [fiscal policy](#), [COVID-19 crisis](#), [corona crisis](#)

11. Katsaus valtion taloudellisiin vastuisiin ja riskeihin, syksy 2020. Valtiovarainministeriön julkaisu 2020:78 (in Finnish only).

FORECAST TABLES

Forecast tables for 2020–2023 (December 2020)

15 Dec 2020 – Bank of Finland Bulletin 6/2020 – Finnish economy

COVID-19 will gradually be left behind in the course of 2021 due to the vaccines, and private consumption will generate growth of 2.2% in the Finnish economy. This will strengthen to 2.5% in 2022.

December 2020

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

Volume, % change on previous year	2019	2020 ^f	2021 ^f	2022 ^f	2023 ^f
GDP at market prices	1.1	-3.8	2.2	2.5	1.5
Imports of goods and services	3.3	-7.1	4.5	4.0	3.3
Exports of goods and services	7.7	-9.1	5.7	3.9	3.3
Private consumption	0.8	-5.3	3.6	4.0	1.8
Public consumption	1.1	3.2	2.1	-0.7	0.2
Private fixed investment	-1.6	-5.6	-3.2	3.8	2.3
Public fixed investment	2.1	8.3	1.7	0.3	1.8

Sources: Bank of Finland and Statistics Finland.

2. CONTRIBUTIONS TO GROWTH¹

	2019	2020 ^f	2021 ^f	2022 ^f	2023 ^f
GDP, % change	1.1	-3.8	2.2	2.5	1.5
Net exports	1.7	-0.8	0.4	0.0	0.0
Domestic demand excl. inventory change	0.5	-2.8	1.8	2.6	2.6
of which Consumption	0.7	-2.0	2.3	1.9	1.9
Investment	-0.2	-0.8	-0.5	0.7	0.7
Inventory change + statistical discrepancy	-1.0	-0.2	0.0	0.0	0.0

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

Sources: Bank of Finland and Statistics Finland.

3. BALANCE OF SUPPLY AND DEMAND. PRICE DEFLATORS

Index 2010 = 100. and % change on previous year

	2019	2020 ^f	2021 ^f	2022 ^f	2023 ^f
GDP at market prices	116.8	119.3	120.7	122.2	124.0
	1.8	2.1	1.2	1.3	1.5
Imports of goods and services	105.6	100.0	101.5	103.9	106.4
	0.4	-5.4	1.5	2.4	2.4
Exports of goods and services	107.0	101.7	103.6	105.8	107.9
	-0.3	-4.9	1.9	2.1	2.0
Private consumption	114.1	114.4	115.5	117.1	118.9
	1.0	0.3	1.0	1.3	1.6
Public consumption	116.5	119.1	120.5	122.4	124.5
	2.5	2.2	1.2	1.6	1.7
Private fixed investment	120.0	121.9	123.2	124.9	127.1
	3.1	1.5	1.1	1.5	1.8
Public fixed investment	117.8	117.5	118.5	119.7	121.3
	2.5	-0.3	0.9	1.0	1.3
Terms of trade (goods and services)	101.3	101.8	102.1	101.7	101.4
	-0.6	0.5	0.3	-0.3	-0.4

Sources: Bank of Finland and Statistics Finland.

4. BALANCE OF SUPPLY AND DEMAND, AT CURRENT PRICES

EUR million and % change on previous year

	2019	2020 ^f	2021 ^f	2022 ^f	2023 ^f
GDP at market prices	240,556	236,470	244,407	253,734	261,354
	2.9	-1.7	3.4	3.8	3.0
Imports of goods and services	95,892	84,247	89,393	95,230	100,654
	3.7	-12.1	6.1	6.5	5.7
Total supply	336,448	320,717	333,800	348,964	362,008
	3.2	-4.7	4.1	4.5	3.7
Exports of goods and services	96,652	83,593	89,965	95,396	100,521
	7.4	-13.5	7.6	6.0	5.4
Consumption	181,348	178,035	185,425	192,628	198,273
	2.4	-1.8	4.2	3.9	2.9
Private	126,029	119,657	125,145	131,837	136,284
	1.8	-5.1	4.6	5.3	3.4
Public	55,319	58,378	60,280	60,791	61,989
	3.6	5.5	3.3	0.8	2.0
Fixed investment	57,482	56,314	55,640	58,140	60,413
	2.0	-2.0	-1.2	4.5	3.9
Private	47,168	45,177	44,208	46,558	48,468
	1.4	-4.2	-2.1	5.3	4.1
Public	10,314	11,137	11,432	11,582	11,945
	4.6	8.0	2.6	1.3	3.1
Inventory change + statistical discrepancy	966	2,775	2,770	2,800	2,800
% of previous year's total demand	-0.5	0.5	0.0	0.0	0.0
Total demand	336,448	320,717	333,800	348,964	362,008
	3.2	-4.7	4.1	4.5	3.7
Total domestic demand	239,796	237,123	243,835	253,568	261,487
	1.5	-1.1	2.8	4.0	3.1

Sources: Bank of Finland and Statistics Finland.

5. BALANCE OF SUPPLY AND DEMAND

% in proportion to GDP at current prices

	2019	2020 ^f	2021 ^f	2022 ^f	2023 ^f
GDP at market prices	100.0	100.0	100.0	100.0	100.0
Imports of goods and services	39.9	35.6	36.6	37.5	38.5
Exports of goods and services	40.2	35.4	36.8	37.6	38.5
Consumption	75.4	75.3	75.9	75.9	75.9
Private	52.4	50.6	51.2	52.0	52.1
Public	23.0	24.7	24.7	24.0	23.7
Fixed investment	23.9	23.8	22.8	22.9	23.1
Private	19.6	19.1	18.1	18.3	18.5
Public	4.3	4.7	4.7	4.6	4.6
Inventory change + statistical discrepancy	0.4	1.2	1.1	1.1	1.1
Total demand	139.9	135.6	136.6	137.5	138.5
Total domestic demand	99.7	100.3	99.8	99.9	100.1

Sources: Bank of Finland and Statistics Finland.

6. PRICES

Index 2010 = 100, and % change on previous year

	2019	2020 ^f	2021 ^f	2022 ^f	2023 ^f
Harmonised index of consumer prices, 2015 = 100	103.6	104.0	104.9	106.1	107.7
	1.1	0.4	0.9	1.2	1.5
Consumer price index, 2015 = 100	103.3	103.6	104.4	105.6	107.2
	1.0	0.3	0.8	1.2	1.5
Private consumption deflator	114.1	114.4	115.5	117.1	118.9
	1.0	0.3	1.0	1.3	1.6
Private investment deflator	120.0	121.9	123.2	124.9	127.1
	3.1	1.5	1.1	1.5	1.8
Exports of goods and services deflator	107.0	101.7	103.6	105.8	107.9
	-0.3	-4.9	1.9	2.1	2.0
Imports of goods and services deflator	105.6	100.0	101.5	103.9	106.4
	0.4	-5.4	1.5	2.4	2.4
Value-added deflators					
Value-added, gross at basic prices	116.7	118.9	120.7	122.8	125.4
	1.8	1.9	1.5	1.7	2.1
Private sector	116.3	118.3	120.6	122.7	125.4
	1.5	1.7	1.9	1.8	2.2
Public sector	118.3	121.4	121.3	123.2	125.4
	3.2	2.6	-0.1	1.6	1.7

Sources: Bank of Finland and Statistics Finland.

7. WAGES AND PRODUCTIVITY

% change on previous year

	2019	2020 ^f	2021 ^f	2022 ^f	2023 ^f
Whole economy					
Index of wage and salary earnings	2.1	1.7	2.2	1.7	2.2
Compensation per employee	1.3	0.6	3.6	1.9	2.3
Unit labour costs	1.3	2.8	1.5	0.5	1.4
Labour productivity per employed person	0.0	-2.2	2.0	1.4	0.8

Sources: Bank of Finland and Statistics Finland.

8. LABOUR MARKET

1.000 persons and % change on previous year

	2019	2020 ^f	2021 ^f	2022 ^f	2023 ^f
Labour force survey (15–74-year-olds)					
Employed persons	2,566	2,525	2,529	2,556	2,573
	1.1	-1.6	0.1	1.1	0.7
Unemployed persons	184	215	228	212	205
	-8.7	16.8	6.3	-7.1	-3.4
Labour force	2,750	2,740	2,757	2,768	2,778
	0.4	-0.4	0.6	0.4	0.4
Working-age population (15–64-year-olds)	3,428	3,421	3,414	3,410	3,409
	-0.3	-0.2	-0.2	-0.1	0.0
Labour force participation rate, %	66.6	66.3	66.8	67.3	67.7
Unemployment rate, %	6.7	7.8	8.3	7.7	7.4
Employment rate (15–64-year-olds), %	72.5	71.6	71.8	72.7	73.2

Sources: Bank of Finland and Statistics Finland.

9. GENERAL GOVERNMENT REVENUE. EXPENDITURE. BALANCE AND DEBT

	2019	2020 ^f	2021 ^f	2022 ^f	2023 ^f
% of GDP					
General government revenue	52.3	51.2	52.3	52.3	52.3
General government expenditure	53.3	58.3	57.0	55.5	54.7
General government primary expenditure	52.5	57.6	56.3	54.8	54.1
General government interest expenditure	0.8	0.8	0.7	0.7	0.6
General government net lending	-1.0	-7.1	-4.7	-3.2	-2.4
Central government net lending	-1.2	-6.4	-4.1	-2.7	-1.9
Local government net lending	-1.1	-0.5	-0.9	-1.0	-1.2
Social security funds	1.4	-0.1	0.3	0.5	0.6
General government primary balance	-0.2	-6.3	-4.0	-2.6	-1.8
General government debt (consolidated. EDP)	59.3	68.4	71.3	72.6	74.0
Central government debt	44.2	52.7	55.3	56.4	57.4
Tax ratio	42.2	41.4	42.3	42.2	42.2
Current prices, EUR billion					
General government net lending	-2,310	-16,751	-11,495	-8,132	-6,242
Central government net lending	-2,896	-15,217	-10,019	-6,884	-4,863
Local government net lending	-2,725	-1,288	-2,247	-2,610	-3,043
Social security funds	3,311	-245	771	1,361	1,664
General government debt (consolidated. EDP)	142,539	161,857	174,160	184,203	193,478
Sources: Bank of Finland and Statistics Finland.					

10. BALANCE OF PAYMENTS

EUR billion					
	2019	2020 ^f	2021 ^f	2022 ^f	2023 ^f
Exports of goods and services (SNA)	96.7	83.6	90.0	95.4	100.5
Imports of goods and services (SNA)	95.9	84.2	89.4	95.2	100.7
Goods and services account (SNA)	0.8	-0.7	0.6	0.2	-0.1
% to GDP	0.3	-0.3	0.2	0.1	-0.1
Investment income and other items, net (+ statistical discrepancy)	1.2	1.4	1.2	1.2	1.2
Current transfers, net	-2.4	-2.5	-2.4	-2.3	-2.1
Current account, net	-0.5	-17.6	-0.6	-0.9	-1.0
Net lending, % to GDP					
Private sector	0.8	6.3	4.4	2.8	2.0
Public sector	-1.0	-7.1	-4.7	-3.2	-2.4
Current account, % to GDP	-0.2	-0.7	-0.3	-0.4	-0.4

Sources: Bank of Finland and Statistics Finland.

11. INTEREST RATES

%	2019	2020 ^f	2021 ^f	2022 ^f	2023 ^f
3-month Euribor ¹	-0.4	-0.4	-0.5	-0.5	-0.5
Average interest rate on new loan drawdowns ²	1.8	1.7	1.7	1.7	1.7
Average interest rate on the stock of loans ²	1.3	1.3	1.2	1.2	1.2
Average interest rate on the stock of deposits ³	0.1	0.0	0.0	0.0	0.0
Yield on Finnish 10-year government bonds ¹	0.1	-0.2	-0.3	-0.3	-0.2

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

	2019	2020 ^f	2021 ^f	2022 ^f	2023 ^f
Real GDP, volume, % change on previous year					
World	2.7	-3.5	5.6	3.9	3.4
USA	2.2	-3.6	3.8	2.2	1.8
Euro area	1.3	-7.3	3.9	4.2	2.1
Japan	0.7	-5.3	2.8	1.3	0.8
Real imports, volume, % change on previous year					
World	0.6	-9.5	7.1	4.3	3.6
USA	1.1	-10.7	7.6	3.9	2.5
Euro area	0.6	-10.7	6.6	4.1	3.2
Japan	-0.6	-7.2	2.6	3.0	2.4
Index, 2015 = 100, and % change on previous year					
Import volume in Finnish export markets	114.9	103.8	110.8	116.3	120.4
	1.4	-9.6	6.7	4.9	3.5
Export prices of Finland's competitors (excl. oil), in national currencies	107.4	105.1	107.3	109.5	111.6
	1.1	-2.2	2.1	2.1	1.9
Export prices of Finland's industrial competitors (excl. oil), in euro	101.3	96.8	97.5	99.6	101.4
	1.8	-4.5	0.8	2.1	1.9
Industrial raw materials (excl. energy), HWWA index, in US dollars	119.0	119.8	130.8	133.4	137.0
	-5.3	0.6	9.2	2.0	2.7
Oil price, USD per barrel ¹	64.1	41.6	44.1	45.7	47.0
	-9.9	-35.1	5.9	3.7	2.8
Finland's nominal competitiveness indicator ²	93.8	91.6	90.5	90.5	90.5
	-0.7	2.4	1.3	0.0	0.0
US dollar value of one euro ³	1.12	1.14	1.18	1.18	1.18
	-5.2	1.6	4.1	0.0	0.0

12. INTERNATIONAL ENVIRONMENT

¹ Technical assumption derived from market expectations.

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

³ Exchange rates assumed stable during the forecast period.

Sources: Bank of Finland and European Central Bank.

13. CURRENT AND JUNE 2020 FORECAST

	2019	2020 ^f	2021 ^f	2022 ^f
GDP, % change	1.1	-3.8	2.2	2.5
June 2020	1.0	-6.9	3.0	2.9
Inflation (HICP), %	1.1	0.4	0.9	1.2
June 2020	1.1	0.2	0.7	1.3
Current account, % to GDP	-0.2	-0.7	-0.3	-0.4
June 2020	-0.8	-2.3	-1.9	-1.8
General government net lending, % to GDP	-1.0	-7.1	-4.7	-3.2
June 2020	-1.1	-8.0	-4.9	-3.8
General government debt (EDP), % to GDP	59.3	68.4	71.3	72.6
June 2020	59.4	71.3	73.3	74.5
Unemployment rate, %	6.7	7.8	8.3	7.7
June 2020	6.7	9.0	9.3	8.8
Employment rate, 15–64-year-olds, %	72.5	71.6	71.8	72.7
June 2020	72.5	70.8	70.6	71.2

Source: Bank of Finland.

Tags

COVID-19, COVID-19 crisis, economic forecast, economic outlook, Finland, forecast,