



BANK OF FINLAND BULLETIN

BANK OF FINLAND ARTICLES ON THE ECONOMY

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Finland's public debt sustainability and fiscal consolidation needs

Yesterday – Analysis – Finnish economy



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Finland's public finances have long been in structural deficit, irrespective of the cyclical situation. The continued deficits have led to an increase in the amount of public debt relative to gross domestic product (GDP). As interest rates have now risen significantly, interest payments on public debt are growing as the stock of debt is rolled over and expands further. At the same time, population ageing is adding to the need for health and social services and the related spending. Halting the accumulation of further debt in the immediate years ahead would aim to give sufficient room for manoeuvre in future crises and for coming generations. A fiscal correction will require significant spending cuts and tax increases in future parliamentary terms.



Public debt continues to grow

According to the Bank of Finland's December 2022 forecast, Finland's general

government deficit relative to GDP will grow to over 2.5% by 2025 (see [Finnish economy set to slide into recession](#)). In addition to the permanent expenditure increases already decided, the public finances will be weakened by age-related expenditure, and by higher debt servicing costs stemming from higher interest rates. At the same time, public debt relative to GDP will be approaching 75% by the end of 2025. The debt ratio will continue to grow in the long term, too, unless the trajectory of the public finances is corrected.

The Bank of Finland's forecast for the public finances is based on a no-policy-change assumption that only takes into account already-known policy decisions concerning the future, available statistical data, and macroeconomic forecasts and assumptions (Table 1). With the end of the parliamentary term approaching, even the fiscal stance for the immediate years ahead is surrounded by high uncertainty.

Table 1.

Assumptions about the Finnish economy in the medium term			
	2010–2019	2020–2025	2026–2035
General government (excl. employment pension schemes) net lending, % of GDP	-3.5	-3.5	-4.3
Nominal (implicit) interest rate on public debt, %	1.9	1.0	2.2
Consolidated general government debt, % of GDP	61.7	73.2	83.1
GDP volume growth, %	1.2	0.8	1.3
Consumer price inflation (HICP), %	1.5	3.0	2.0
Number of persons employed (aged 15–74), 1,000 persons	2,444	2,583	2,599
Unemployment rate, %	8.3	7.3	7.6

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

Recent years have once again demonstrated that gaining fiscal space through increased borrowing may become necessary in the future, too. The higher the level of public debt in relation to the size of the economy, the more likely it is that higher interest payments will be paid on the debt. To prevent debt servicing costs from overly limiting fiscal policy in normal times, the amount of debt should be maintained at a reasonable level.

In the Finnish national accounts, the general government sector also includes private earnings-related pension funds, i.e. employment pension schemes. This has served to strengthen the general government budgetary position. However, the surplus of the employment pension schemes does not directly reduce the borrowing needs of other general government subsectors, nor can it be used to service public debt. Hence, public debt accumulation is particularly affected by the combined net lending of central

government, local government and social security funds other than employment pension schemes. According to the Bank of Finland's forecast, the structural primary balance ^[1] of the general government sector (excl. employment pension schemes) is estimated at -1.0% relative to GDP in 2024, or approximately EUR 3 billion. Rebalancing central and local government finances in structural terms, including interest payments, would require EUR 5.7 billion in 2024.

Although the long-term fiscal sustainability challenges associated with Finland's age demographics have long been known, the country's public debt ratio has doubled over the past 14 years. The fiscal issues that previously appeared as long-term challenges have in many respects already turned into today's problems. Efforts must be made to improve the balance of the public finances to ensure that there will also be funds to tackle the ecological problems affecting our future generations. Even though Finland's public debt ratio has already reached the level of the crisis years of the early 1990s, the current situation is markedly different. Fiscal correction is not yet a matter of compulsion; there is still time if action is taken soon and is continued on a long-term basis.

Calculating fiscal consolidation needs

Bringing the public finances onto a sustainable path will take time. In the calculations presented here, we estimate the fiscal consolidation required over the next two parliamentary terms. We analyse the impact of the consolidation on the deficit and on the level of debt for the period up to 2035. The aim here is to halt or reverse the upward trend in the debt-to-GDP ratio by 2035. The debt ratio may also be affected by EU Treaty and economic governance framework requirements. At its simplest, the accumulation of debt is halted by balancing general government (excl. employment pension schemes) revenues and expenditures. If there is no need to take on new debt, the debt-to-GDP ratio will decline as the economy grows, i.e. as GDP (the denominator of the debt ratio) increases.

The need for age-related services will increase each year, so the related higher spending must be counteracted in some way to keep the accumulation of debt in check. However, with both debt and interest rates rising, the higher price of new debt will gradually drive up interest payments on the total stock of debt, thus also automatically fuelling public spending. These dynamics hamper the management of the public finances.

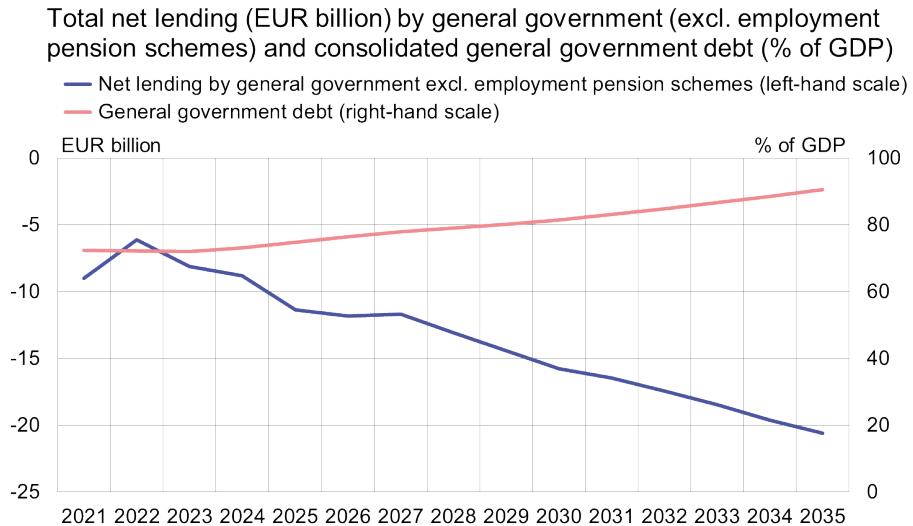
The levels of general government deficit and debt can be reduced both by consolidation measures targeted at public revenues and expenditure and by structural reforms. For the sake of simplicity in the calculations presented here, the fiscal consolidation is split evenly between spending cuts and tax increases. The spending cuts are assumed to be targeted at transfers, monetary social benefits and subsidies paid by general government to other sectors. Thus, it is assumed no cuts are made to public service provision or public investment.^[2] As for the tax increases, the assumption is that half will concern direct taxes (largely income tax receipts) and half indirect taxes (value added tax being

1. Budget balance adjusted for cyclical effects, one-off factors and interest payments.

2. The potential areas of public spending cuts and the extent of these have been analysed in the article [Assessment of public finances 2019](#) by Arto Kokkinen (Forecast for the Finnish economy, December 2019).

the most important individual tax class). The fiscal consolidation scenarios are based on the Bank of Finland's December 2022 economic forecast, the long-term forecast and a fiscal sustainability calculation. The sustainability calculation is presented later in this article. The aim is also to ensure the calculations take into account the impact on economic growth.

Chart 1.



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

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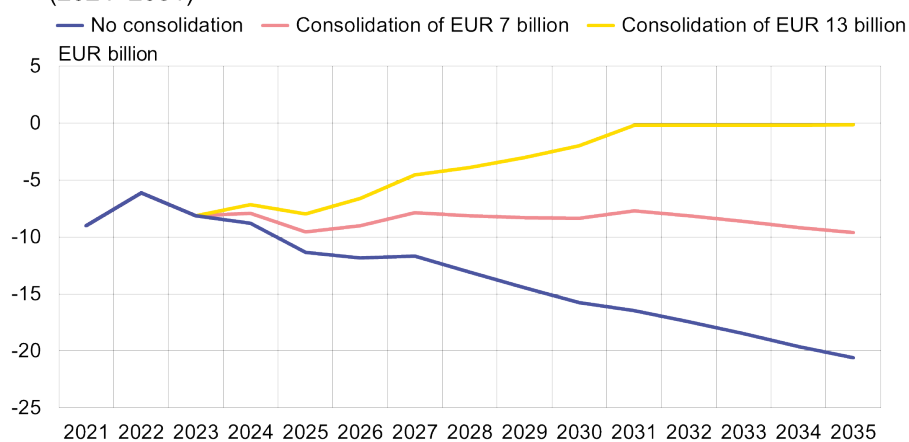
In the absence of any new decisions on fiscal consolidation, the general government (excl. employment pension schemes) deficit will increase to almost EUR -21 billion, or 4.9% of GDP, by 2035 (Chart 1). Under this no-policy-change scenario, the rising deficit will be fuelled by growth in age-related spending and public debt servicing costs. Age-related spending (excl. earnings-related pension expenditure) will grow by 0.8 percentage points relative to GDP in the period 2022–2035. Over the same period, interest payments relative to GDP will grow by 1.8 percentage points.^[3]

First, we estimate the size of the fiscal consolidation required to halt or reverse further growth in the amount of public debt. Annual general government (excl. employment pension schemes) expenditures and revenues are adjusted in the scenario over the period 2024–2031, covering two parliamentary terms. The calculation assumes that this consolidation is distributed evenly, i.e. the same levels of permanent expenditure cuts and tax increases are made each year, cumulatively on top of the adjustments of each previous year. Rebalancing the general government finances, and therefore halting the accumulation of further debt, would require an evenly distributed fiscal consolidation totalling EUR 13 billion, starting in 2024 (Chart 2).

3. The assumption concerning the interest rate on public debt is the same as that of the European Commission's Ageing Working Group, i.e. the nominal interest rate will rise to 4% in 2050.

Chart 2.

Total net lending (EUR billion) by general government (excl. employment pension schemes) with fiscal consolidation distributed evenly over 8 years (2024–2031)



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

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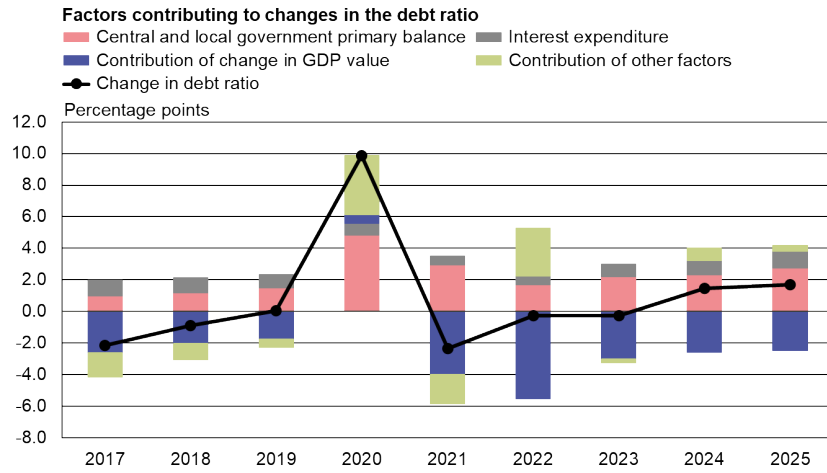
Bringing the debt ratio down to 60% would require rebalancing the public finances

The ratio of public debt to GDP does not necessarily grow if the amount of debt increases. If the general government primary budget position ^[4] is sufficiently close to balance, the rise in the debt-to-GDP ratio will depend on the difference between the interest rate paid on public debt and the economy's growth rate, i.e. the so-called interest rate-growth differential. If the GDP growth rate exceeds the average interest rate on the stock of debt, the debt ratio will decrease, and vice versa. The debt ratio is also affected by various timing factors and periodic financial transactions, such as revenue on asset sales or the use of liquid cash reserves (Chart 3).

4. The difference between public revenue and expenditure other than interest payments.

Chart 3.

Primary balance and interest payments will raise the debt ratio again from 2024 onwards



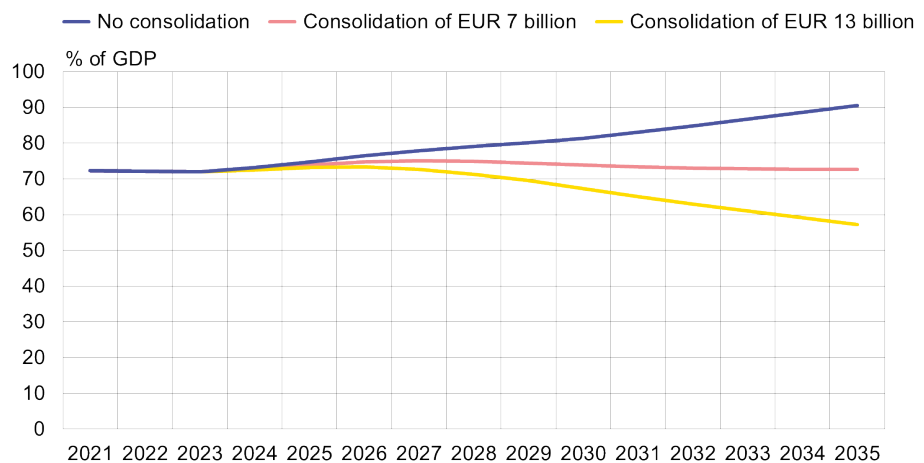
Sources: Statistics Finland and calculations by the Bank of Finland.

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Without fiscal consolidation, public debt relative to GDP will grow to around 91% by 2035 (Chart 4). Stabilising the debt ratio would require an evenly distributed consolidation totalling EUR 7 billion over 8 years, i.e. over the next two parliamentary terms. With a consolidation of EUR 13 billion, Finland would be in compliance with the EU Treaty reference value of 60% for the debt-to-GDP ratio in 2035, and the amount of debt would not grow further.

Chart 4.

Consolidated general government debt (% of GDP) with fiscal consolidation distributed evenly over 8 years (2024–2031)



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

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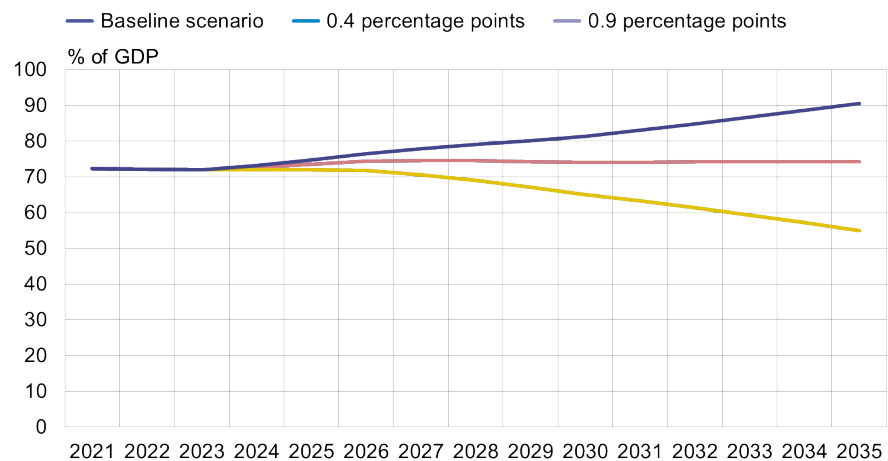
Since the global financial crisis, the contractionary effect that the interest rate-growth differential has had on the debt ratio in Finland has been surpassed by the expansionary effect of the negative primary balance. As a result, the debt ratio has increased

substantially. At the same time, the surplus of the employment pension schemes has kept the total general government net lending within the framework of the 3% of GDP deficit reference value. With public debt remaining below the reference value of 60% of GDP, general government borrowing has continued. Even a breach of the debt-to-GDP reference value has not been sufficient as such to launch an excessive deficit procedure against Finland.

As described above, strong economic growth is a highly effective remedy against growing debt ratios. If GDP volume growth were to permanently accelerate by 0.4 percentage points above the assumed baseline scenario (Table 1) starting from 2024 ^[5], the debt ratio would not rise in the period 2026–2035 (Chart 5). Should GDP growth accelerate by 0.9 percentage points above the baseline scenario, further growth in the amount of debt would also come to a halt by 2035.

Chart 5.

Consolidated general government debt (% of GDP) when GDP volume growth is assumed to increase permanently



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

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By supporting economic growth, structural reforms can, in the best case, reduce the upward pressures on public spending or broaden the tax base. If it is assumed that healthcare and long-term care expenditure relative to GDP remain at the level of 2027 in real terms, then stabilising the debt ratio and rebalancing the general government (excl. employment pension schemes) budget position by 2035 would each necessitate a fiscal consolidation that is EUR 2 billion smaller than if the projected growth of age-related spending is taken into account.

Based on these scenarios, it is evident that the most effective way to balance the public finances would be a combination of fiscal consolidation and structural reforms that support economic growth and employment. Growth-fuelling reforms and their implementation are essential in the immediate years ahead, but it is only fiscal consolidation that can be attained with certainty through policy decisions.

5. Such acceleration of growth is assumed to stem from labour productivity growth.

Interest payments on public debt are growing as the amount of debt increases and interest rates rise. It might, therefore, be more efficient to front-load fiscal consolidation, because this would more rapidly curb debt accumulation. Using a front-loaded approach, stabilising the debt ratio or balancing general government (excl. employment pension schemes) net lending by 2035 would require a consolidation that is, in rough terms, almost equal to that required in the evenly distributed approach. However, in the case of a front-loaded consolidation of EUR 7 billion ^[6], net lending would improve faster and the debt ratio for 2035 would decrease to just below 70%, which is more than 2.5 percentage points less than with the evenly distributed consolidation. If the consolidation is EUR 6 billion in the next parliamentary term and EUR 3 billion in the subsequent one, distributed evenly each year ^[7], the debt ratio would fall to around 65% and the general government (excl. employment pension schemes) deficit would shrink to EUR 6 billion by 2035.

If the public finances are consolidated only by raising taxes, then stabilising the debt ratio by 2035 would require the tax-to-GDP ratio (aggregate taxes and tax-like payments relative to GDP) to be tightened annually by almost 0.3 percentage points in the period 2024–2031. In such a case, the consolidation would lead to a tightening of the tax-to-GDP ratio by a total of over 2 percentage points. Halting further growth in the amount of debt by 2035 would require the tax-to-GDP ratio to be tightened annually by slightly over half a percentage point, resulting in the ratio tightening overall by over 4 percentage points.

Long-term sustainability gap

Finland's long-term debt sustainability is assessed by gauging changes in public revenue and expenditure up to the year 2070.^[8] This technical quantification of the pressure on the public finances assumes that age-related expenditure grows as demographic changes occur. In addition, the calculation of property income and expenditure, which is based on interest rate assumptions, has an impact on age-related expenditure. Long-term debt sustainability is measured by the 'S2' indicator, which summarises in a single figure the extent to which the general government budgetary position should be permanently adjusted for public debt not to increase in an uncontrollable manner in the future. According to the Bank of Finland's estimate, Finland's sustainability gap will be about 4% of GDP in 2027.

The Bank of Finland's current estimate for the sustainability gap is higher than the one produced in 2021 (3.5%). The increase is largely attributable to future interest expenditure on gross debt for the calculation's base year, and the base year's structural deficit. Both of these are now slightly higher. In the calculation, both age-related spending and interest payments will cause changes in public spending relative to GDP

6. The annual adjustment would be EUR 0.9 billion in the forthcoming parliamentary term and EUR 0.3 billion in the subsequent one.

7. In this case, the annual adjustment is EUR 1.5 billion in the forthcoming parliamentary term and EUR 0.75 billion in the subsequent one.

8. For more details on the principles guiding the calculation of the sustainability gap, see the [Bank of Finland Bulletin article](#) by Jarkko Kivistö and Pirkka Jalasjoki, published as part of the December 2021 forecast for the Finnish economy.

after 2027, the calculation's base year. Age-related spending takes account of the Finnish Centre for Pensions' new long-term projections ^[9] and estimates of the number of pension recipients and the pension replacement ratio. Changes in expenditure on healthcare, long-term care and education and training are also affected by the age structure of the population (Table 2). The level of public spending is estimated based on data for 2020, with the exception of healthcare expenditure, as the 2020 data includes additional pandemic-related spending. Growth in healthcare spending is therefore assessed on the basis of 2019 data. The level of public revenues is primarily based on economic growth – the growth rate of labour productivity and employment. The assumption concerning the interest rate on public debt is the same as that of the European Commission's Ageing Working Group, i.e. the nominal interest rate will rise to 4% in 2050.

Table 2.

Age-related expenditure relative to GDP						
	2019	2020	2035	2070	Change 2019–2035	Change 2019–2070
Pensions	13.3	13.9	13.4	14.0	0.0	0.7
Healthcare	6.8	7.3	7.5	8.0	0.7	1.2
Long-term care	2.0	2.0	2.9	4.8	0.9	2.8
Education and training	5.6	5.8	5.2	5.5	-0.4	-0.1
Unemployment	1.7	2.0	2.0	1.9	0.2	0.2
Total age-related expenditure	29.5	31.1	30.9	34.3	1.4	4.7
Age-related expenditure excl. pensions	16.2	17.2	17.6	20.3	1.4	4.1

Sources: Statistics Finland, Finnish Centre for Pensions and calculations by the Bank of Finland.

Conclusion

The upward pressures on Finland's public debt stem from the imbalance between public revenue and expenditure. This imbalance will become more marked in the coming years due to growth in health and social services spending and public debt service payments. Stabilising the debt ratio by 2035 would require a combined expenditure and revenue adjustment of EUR 7 billion over the next two parliamentary terms if the consolidation is distributed evenly over 2024–2031. If the consolidation is based on tax increases alone,

9. Tikanmäki et al. (2022) Lakisääteiset eläkkeet – pitkän aikavälin laskelmat 2022. Finnish Centre for Pensions, Reports 05/2022 (in Finnish with an English summary 'Statutory pensions – long-term projections 2022').

the tax-to-GDP ratio should be raised over the same period by almost 0.3 percentage points annually, i.e. by a total of more than 2 percentage points.

Halting the accumulation of further debt by 2035 would require a combined expenditure and revenue adjustment of EUR 13 billion. In this case, the debt ratio would also fall below the EU Treaty reference value of 60% of GDP. As the calculations concerning the future presented in this article build on various assumptions, the results are naturally subject to uncertainty. Nevertheless, medium-term and long-term calculations provide a picture of the scale of the challenges in public finances that decision-makers are likely to face in the coming years. Halting the accumulation of further debt in the immediate years ahead would aim to give sufficient room for manoeuvre in future crises and for coming generations. Fiscal correction is not yet a matter of compulsion; there is still time if action is taken soon and is continued on a long-term basis.

Tags

[sustainability gap](#), [fiscal sustainability](#), [public finances](#), [public debt](#)