Analysis

Sustainability gap larger than previously projected

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



What is fiscal sustainability?

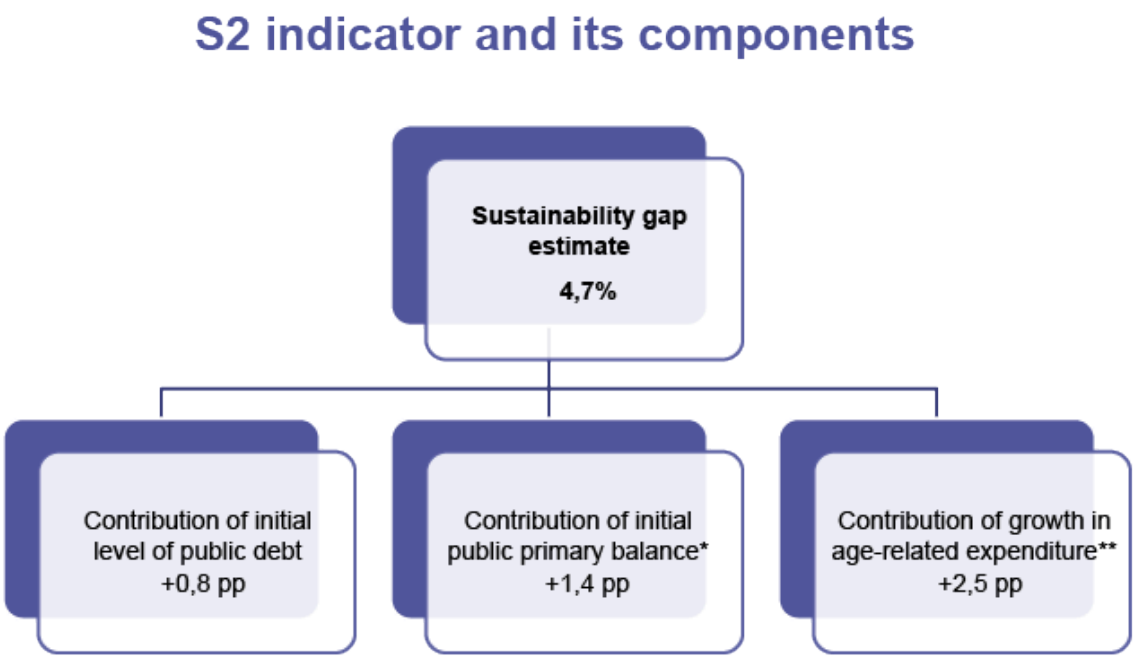
The sustainability of the public finances, or fiscal sustainability refers to the ability of a government to sustain the current level of public revenue and expenditure without threatening fiscal solvency or defaulting on the costs of servicing public debt. The starting point of a fiscal sustainability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

In long-term assessments, fiscal sustainability is gauged with reference to the intertemporal budget constraint. The general government intertemporal budget constraint is satisfied if the current level of public debt will be covered by the present value of future primary budget balances.[1] Primary balances are calculated taking into account the projected growth in future age-related expenditure. Thus, for the intertemporal budget constraint to be met, any public revenue received in future must also cover the additional costs of demographic ageing.

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

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

Chart 1.



* Primary balances of central government, local government and other social security funds, i.e. revenue minus expenditure net of interest payments.
** Incl. the contribution from property income.

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Sustainability gap indicates size of required adjustment

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

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

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

therefore necessary.

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

The three components of the sustainability gap estimate

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

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

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

The impact of the third component – age-related expenditure and general government property income – on future primary balances is based on the projection for age-related spending and assumptions on the nominal return on financial assets. Growth in age-related expenditure will increase the sustainability gap, while an increase in property income will have an impact in the opposite direction. Age-related expenditure has a significantly larger weight in the component than property income. Finally, the sustainability gap calculation takes into account macroeconomic projections and the assumed path of the average interest rate on public debt.[3]

The sustainability gap calculation is subject to an infinite time horizon. In practice, however, changes in revenue and expenditure are examined over the period up to 2070, after which their respective ratios to GDP are assumed to remain unchanged. Otherwise, the basic assumption is

that fiscal policy will remain unchanged in the long term, and hence the GDP ratios of many public revenue and expenditure items will remain at their initial levels.

Age-related expenditure will increase

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

Table 1.

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

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

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

recipients is roughly in line with the long-term calculations of the Finnish Centre for Pensions (ETK).

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

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

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

Earnings-related pension scheme and the sustainability gap calculation

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

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

The value of assets held by the earnings-related pension funds, as a share proportion of GDP, is assumed to be roughly constant throughout the sustainability gap calculation, i.e. their relative

value at the end of the projected portion of the calculation, in 2070, is the same as at the beginning of the calculation. Thus, the size of the funds is not permanently increased or decreased in the calculation. Pension contributions are instead allowed to adjust so that the condition on the size of the funds is satisfied. At the same time, the total tax ratio, which includes earnings-related pension contributions, is kept roughly unchanged at the base-year level. Thus, taxation is allowed to respond to changes in pension contributions with a negative coefficient, to keep the total tax ratio constant.

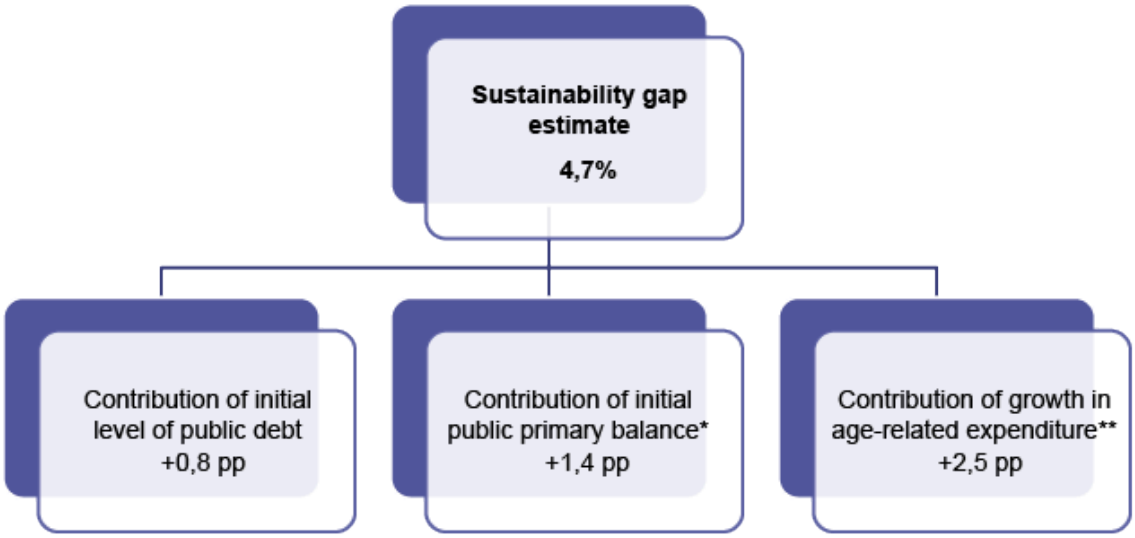
According to the European Commission, the main challenges to the long-term sustainability of Finland's public finances relate particularly to growth in expenditure on healthcare and long-term care. The Commission's calculations indicate that the contribution of pensions to Finland's long-term sustainability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

Bank of Finland's sustainability gap estimate at 4.7%

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

Chart 2.

S2 indicator and its components



* Primary balances of central government, local government and other social security funds, i.e. revenue minus expenditure net of interest payments.
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The Bank of Finland's previous estimate for the S2 sustainability gap, published in December 2018, was about 3%. The current higher estimate compared with the previous year is due particularly to the weaker cyclical situation in the immediate years ahead and measures taken by the Government. Together, these factors increase the initial primary balance deficit – i.e. the deficit estimated for the base year 2025 – by about 1.5 percentage points relative to the previous assessment. The weaker cyclical conditions cover slightly less than half of this increase.

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

According to the European Commission's interpretation, the risk to the long-term sustainability of the public finances is high if the S2 indicator exceeds the value 6. If the S2 value is below 2, the risk

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

Conclusions about the size of the sustainability gap

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

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

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

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

The European Commission considers that the sustainability of the public finances is tightly linked to the observance of the EU's Stability and Growth Pact. Based on a calculation published in January 2019 (European Commission 2019), Finland's general government debt-to-GDP ratio would decline by 10 percentage points by 2029 if Finland were to comply with the requirements of the preventive arm of the Pact. The weaker cyclical situation compared with the previous year should be taken into account, but the calculation nevertheless means that Finland is committed to a set of rules, adherence to which would ensure that Finland's public debt will be maintained on a

sustainable level.

References

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European Commission (2018): The 2018 Ageing Report. Economic and Budgetary Projections for the EU Member States (2016–2070). Institutional Paper 079.

European Commission (2019): Fiscal Sustainability Report 2018. Institutional Paper 094.

Notes

1. The primary balance refers to the difference between general government revenue and expenditure net of interest payments. ↑
2. The principal pension scheme in Finland is the statutory and compulsory earnings-related pension scheme. It is complemented by pensions paid by the Finnish Social Insurance Institution Kela, pensions granted on the basis of the Military Injuries Act, the Motor Insurance Act and the Workers' Compensation Insurance Act, and voluntary pensions taken out by employers or employees themselves. ↑
3. The assumption on the interest rate on public debt is the same as used in the calculations of the Ageing Working Group of the European Commission (2018). The assumption on the long-term return on assets held by earnings-related pension funds is roughly in line with the assumptions of the Finnish Centre for Pensions (ETK). ↑

Keywords

long-term projection, population ageing, public finances, sustainability gap