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Summary

Heikki Tikanmäki, Kaarlo Reipas, Sampo Lappo,
Ville Merilä, Tuija Nopola, Mikko Sankala

Statutory pensions in Finland – long-term projections 2022

In this report, we present the Finnish Centre for Pensions' 2022 long-term projections of the development of statutory pension expenditure and the level of pension benefits. Our report also includes financing projections for the earnings-related pension schemes. The main result from the financing projections is the development of contributions and assets under the Employees Pensions Act (TyEL) for the years 2022–2090.

The future development of mortality is based on Statistics Finland's population forecast from 2021. However, we have modified the forecast to take into account the unusually high mortality rate in 2021 and early 2022. We have also extended the population forecast to cover the years 2071–2090. According to the forecast, the population in Finland will continue to grow until the mid-2030s, after which it will start to shrink. At year-end 2021, the population numbered 5.55 million. It is projected to shrink to 5.1 million by 2090. Despite the shrinking population, the number of people aged 65 and over will grow until 2080. The number of working-age people and children, on the other hand, will decrease very sharply over the projection period.

By the end of the projection period, the old-age dependency ratio (the ratio of persons aged 65 and over to 15–64-year-olds) will be around 65 per cent. In 2021, the dependency ratio was 37.4 per cent. The share of persons who have reached their retirement age will grow at a slower pace than the old-age dependency ratio since the retirement age will rise. The weakening of the old-age dependency ratio in the near future is a consequence of the current age structure in Finland. Long-term, the weakening of the old-age dependency ratio is caused by a steadily rising life expectancy combined with a low birth rate. In 2021, life expectancy at birth was 81.8 years. It is projected to rise to nearly 91 years by 2090.

The employment rate in 2021 was 71.5 per cent. According to the employment projection, the employment rate is expected to rise at the beginning of the projection period and then stabilize at 73–74 per cent. After that, the employment rate will vary slightly based on the age structure of the working-age population. The standard employment rate is calculated for 15–64-year-olds. Long-term, this measure will not give a complete picture of employment as the retirement age will exceed 65 years in the early 2030s and the number of workers aged 65 or over will grow.

The effective retirement age will continue to rise throughout the projection period. In 2021, it was 62.4 years. It is projected to rise to 63.3 years in 2030 and to over 66 years by the end of the projection period.

Old-age pensions are adjusted to changes in life expectancy with the life expectancy coefficient. The value of the life expectancy coefficient is determined separately for each birth cohort. In 2022, the life expectancy coefficient for 62-year-olds is 0.94659. Due to the unusually high mortality rates during the corona pandemic, the life expectancy coefficient may grow in the near future. In the long-term, however, the life expectancy coefficient will decrease if mortality follows its historical trend. In 2030, the life expectancy coefficient will be 0.93, and in 2090, it will be 0.86.

The retirement age will also be linked to the development of the expected life expectancy as of those born in 1965. The retirement age for those born in 1980 is around 67 years. It will rise to around 69 years for those born in 2005.

In 2021, the total statutory pension expenditure was 13.2 per cent of GDP. The ratio will remain more-or-less unchanged up to 2035. At its smallest, the ratio will be slightly less than 13 per cent in the 2040s, after which it will start to grow again. At its highest, the pension expenditure will be over 14 per cent of GDP in the 2080s.

In 2021, the earnings-related pension expenditure was 31.5 per cent relative to the sum of earned income. This expenditure ratio will grow until 2032, at which time it will be slightly above 33 per cent. After that, the ratio will decrease, standing at approximately 31 per cent of the sum of earned income in 2045. From then on, the expenditure relative to the sum of earned income will grow to 37 per cent by the 2080s. The increase in the expenditure ratio is caused, in particular, by a shrinking working-age population. At the very end of the projection period, the expenditure ratio will break into a slight downturn.

In 2021, the average monthly pension was 1,784 euros. The purchasing power of the average pension is projected to grow continuously after 2023, reaching nearly 3,300 euros in 2090 (at 2021 prices). In the very near-term, average pensions will improve more rapidly than average earnings since pensions in payment are indexed mainly based on changes in prices, and prices will rise more than earnings. However, the ratio of the average pension to the average wage will decrease from the mid-2020s onwards. The main reason for the decrease is the life expectancy coefficient, which adjusts the benefit level to correspond to changes in life expectancy. Other previously made changes to how pension benefits are determined will also affect the trend.

The discretionary increases made to the pensions paid by the Social Insurance Institution of Finland (Kela) will have a pivotal impact on the level of these pensions. According to the assumptions of this long-term projection, the increases to the pensions paid by Kela will exceed inflation by half of the real growth of earnings.

Pension distributions for both men and women will widen slightly during the projection period. This is partly because, in the future, a greater share of retirees will be immigrants whose average pensions will be small. However, the gender gap in pensions will decrease. A person's educational level will continue to be a good predictor for the size of their pension, but the gap in pensions between the group with an upper-secondary education and that with a higher education will decrease slightly. The pensions of the group with only a basic-level education will improve at a clearly slower rate than the pensions of other groups. In the future, the group with only a basic-level education will include relatively more people with a shorter-than-average working life, as well as immigrants, who have spent only part of their working life in Finland.

The average contribution rate under the Employees Pensions Act (TyEL contribution) was around 24.4 per cent of wages in 2021. Due to the repayment of the reduced contribution during the corona pandemic, the TyEL contribution in the projection is 24.85 per cent during the period 2022–2025. After that, the contribution will be 24.4 per cent until 2040, when it will begin to rise again. In the early 2050s, the TyEL contribution rate will reach 25 per cent, and at the end of the 2060s, it will rise to the 26 per cent. This will be a sustainable contribution level also after the 2060s. The assets under the Employees Pensions Act (TyEL assets) relative to the wage sum will grow as of the 2030s. The TyEL assets relative to the wage sum will also grow from its current level but stabilize as of mid-century. Thanks to increasing TyEL assets, there is no pressure to raise the contribution rate following the projection period.

A constant TyEL contribution rate of 25.3 per cent (up by around one percentage point from the rate in 2021) would be sufficient to finance expenditures long term. This sufficient constant TyEL contribution rate takes into account both the short- and long-term financing needs. Similarly, a sufficient constant contribution rate for public sector municipal pensions would be 26.2 per cent. In 2021, the comparable municipal pension contribution rate was 28.2 per cent relative to the wage sum. The contribution level sufficient to finance the total pension expenditure under all earnings-related pension acts would be 27.8 per cent. The comparable contribution income (incl. the State's shares) was 29.2 per cent of the economy's sum of earned income in 2021.

These constant contribution rates depend on the assumptions used in the projections, particularly those of the return on pension assets.

We have tested our results for sensitivity to changes in the main assumptions in our report. The sensitivity of results to changes in population assumptions is checked by using different mortality and birth rates. Alternative economic assumptions are made by varying earnings growth, the employment rate and return on pension assets. We have aimed to select sensitivity scenarios that have comparable ranges of variation. Return on pension assets is by far the most important single factor when it comes to pension financing. Its significance has been further emphasised in recent years as pension assets have grown due to exceptionally good returns.

Changes in mortality affect the development of retirement ages but also the benefit levels due to the life expectancy coefficient. However, these adaptation mechanisms do not remove all the effects of the rising life expectancy on expenditure. First of all, they do not affect the pension levels or retirement ages of those who have already retired. Second, the life expectancy coefficient does not apply to pensions paid by Kela. Third, the rise in the retirement age is not fully reflected in the effective retirement age. This phenomenon would be accentuated if the retirement age were to rise quickly because of a rapid increase in life expectancy.

The birth rate affects the number of the working-age population and hence also the financing of the pension system with a delay of about 20 years. In the low birth rate projection, the contribution rates would be higher than in the baseline projection in the latter half of the century. A birth rate exceeding the baseline projection by about 10 per cent would allow the TyEL contribution to be kept at its current level.

The growth in earnings affects different pension systems in different ways. Earnings-related benefits are partly linked to the development of the earnings level. In a pay-as-you-go scheme, a quick growth in earnings also means a growth in the financing base. In a funded system, on the other hand, only pension expenditure increases. In the partially funded TyEL scheme, the impact of the growth in earnings on the contribution rate is, all-in-all, minor. In the total earnings-related pension scheme, faster growth in earnings would reduce the sustainable constant contribution level. Faster earnings growth would lead to pensions being higher in euros but smaller when compared to the earnings level.

The employment rate affects the pension expenditure relative to the sum of earned income in the short and the medium run. If the employment rate falls short of that in the baseline projection, the accrued earnings-related pension rights would also be lower than those in the baseline projection. In the long run, a constant deviation from the baseline projection would not show in the pension expenditure relative to the wage sum or the TyEL pension contribution rate.

The return on pension assets affects the contribution rate and the amount of pension assets. Higher investment returns would initially increase the amount of pension assets and, in the long run, lead to a lower TyEL contribution rate. Higher investment returns would reduce the necessary contribution level more than poorer investment returns would increase the necessary contribution level. Initially, the effect would

be moderate but, in the long term, it would accumulate to a significant effect. In our sensitivity scenarios we assume investment returns that are 1.2 percentage points higher or lower than in the baseline projection. This would lead to a TyEL contribution rate that deviates from the baseline in both alternatives by around half a percentage point in 2030. Towards the end of the projection period, the alternative with low returns would lead to a TyEL contribution rate that is six percentage points higher than in the baseline projection. Correspondingly, in the alternative with high returns, the TyEL contribution rate would be 10 percentage points lower than in the baseline projection.

Optimistic and pessimistic economic scenarios have been formed by combining the scenarios of high or low earnings growth, employment and pension asset returns. In the long run, the effects of the combined scenarios for pension financing are mainly due to the return on pension assets. However, during the latter half of the projection period, the TyEL contribution in the optimistic economic scenario would be higher than that of the high return scenario. This is because of the combined effect of strong earnings growth and high asset returns. In the short run, employment also affects pension financing.

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Eläketurvakeskus
PENSIONSSKYDDSCENTRALEN

Eläketurvakeskus

00065 ELÄKETURVAKESKUS
Puhelin 029 41120
Faksi 09 148 1172

Pensionsskyddscentralen

00065 PENSIONSSKYDDSCENTRALEN
Telefon 029 41120
Fax 09 148 1172

Finnish Centre for Pensions

FI-00065 Eläketurvakeskus
Finland
Phone +358 29 41120
Fax +358 9 148 1172

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