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# SUMMARY

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## Statutory pensions in Finland – long-term projections 2019

In this report, we present the Finnish Centre for Pensions' 2019 long-term projections of the development of statutory pension expenditure and the benefit level. 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 2019–2085.

The projections follow Statistics Finland's population forecast from 2018, which we have extended to 2085. According to the forecast, the population will continue to grow until the mid-2030s, after which it will start to shrink. At year-end 2017, the population in Finland was 5.51 million. It is projected to shrink to 5.1 million by 2085. Despite the shrinking population, the number of people aged 65 and older will grow until 2080. The number of working-age people and children, on the other hand, will decrease during the projection period.

The old-age dependency ratio (the ratio of persons aged 65 and above to the 15–64-year-olds) will continue to grow until 2085. In 2017, the old-age dependency ratio was 34.2 per cent. It is projected to rise to 66.1 per cent by 2085. The weakening of this ratio in the near future is a consequence of the current age structure in Finland. However, a steadily rising life expectancy combined with a low birth rate would mean that the old-age dependency ratio would weaken throughout the projection period. In 2017, life expectancy at birth was 81.5 years. It is projected to rise to nearly 91 years by 2085.

The employment rate in 2018 was 71.7 per cent. According to the employment projection, it is expected to rise to 73.4 per cent in 2025. After that, the employment rate will be slightly over 73 per cent, varying slightly based on the age-structure of the working-age population. The growth in the employment rate follows mainly from an increasing labour force participation rate of the older age groups. The employment rate of the elderly will rise partly as a result of the expected postponing of retirement mainly due to the 2017 pension reform. In 2018, the expected effective retirement age was 61.3 years. It is projected to rise to 62.5 years in 2025 and 65 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 2019, the life expectancy coefficient for the 62-year-olds is 0.95722. In 2030, it is expected to be 0.91, and 0.85 in 2085. 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 66 years and 8 months. It will exceed 68 years for those born in 2000.

In 2017, the total statutory pension expenditure was 13.4 per cent relative to the GDP. The ratio will remain more-or-less unchanged up to 2030. At its smallest, the ratio will be slightly over 12 per cent at mid-century, after which it will start to grow again. At its highest, the pension expenditure will be around 15 per cent of GDP at the end of the projection period. In 2017, the earnings-related pension expenditure for the whole economy was 31.6 per cent relative to the sum of earned income. The expenditure ratio will grow until 2030, at which time it will be around 33 per cent. After that, the ratio will decrease, standing at approximately 30 per cent of the sum of earned income in 2050. From then on, the expenditure ratio relative to the sum of earned income will grow to nearly 38 per cent by the end of the projection period. The increase in the expenditure ratio is caused, in particular, by a shrinking working-age population.

In 2017, the average monthly pension was 1,656 euros. The purchasing power of the average pension is projected to grow continuously, reaching nearly 3,600 euros in 2085 (at 2017 prices). In the next few years, the average pensions will grow in step with the general growth in earnings. The pension level relative to the average earnings will begin to decrease in the early 2020s. The main reason for the decrease is the life expectancy coefficient. The employee's pension contribution and the adjustments made to the public sector pension benefits in the 1990s also play a role in this development. 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 projection, the increases to the pensions paid by Kela will exceed inflation but lag behind earnings.

During the projection period, there will be no significant changes to pension distributions within gender groups. However, the gender gap in pensions will decrease. Pensions for people of different educational levels will develop more-or-less at the same rate throughout the projection period. The group with a basic-level education, whose pensions will develop at a below-average rate, form the exception. In the future, the group with 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 contribution under the Employees Pensions Act (TyEL contribution) is projected to rise from 24.3 per cent in 2017 to around 25 per cent at the end of the 2020s. The contribution will begin to rise strongly in the 2050s, mainly due to the low birth rates. The TyEL contribution rate will exceed 30 per cent in the 2070s. At the end of the projection period, the contribution will be at a sustainable level. By the end of the century, also the assets under the Employees Pensions Act (TyEL assets) will grow relative to the wage sum. Relative to the pension expenditure, however, the TyEL assets will remain stable.

A constant TyEL contribution rate of 26.9 per cent would be sufficient to finance expenditures long term. In 2017, the contribution rate was 24.3 per cent of the TyEL wage sum. Similarly, a sufficient constant contribution rate for local government pensions would be 27.8 per cent relative to the corresponding wage sum. In 2017, that rate was 28.5 per cent. The contribution level sufficient to finance the total pension expenditure under all earnings-related pension schemes relative to the economy's total wage sum would be 29.2 per cent, which was the collected comparable contribution income in 2017.

We have examined the sensitivity to changes in the main assumptions in our report.

*Changes in mortality* would affect the development of retirement ages. These changes would also affect the benefit levels due to the life expectancy coefficient. However, these adaptation mechanisms would not remove all the effects of the rising life expectancy on expenditure. First of all, they do not affect the pensions 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 does not affect, in full, the effective retirement age. This phenomenon would be accentuated if the retirement age rises quickly as a result of a rapid increase in life expectancy.

The *birth rate* affects the financing of the pension system with a delay of about 20 years, when the newborn reach working age. In the low birth rate projection, the expected total fertility rate is 1.2. At the end of the projection period, the pension expenditure relative to GDP would grow by 2.4 percentage points compared to the baseline projection. The effect on the TyEL contribution at the end of the projection period would be roughly 4 percentage points. In the high birth rate projection, the expected total fertility rate is 1.7, which was the baseline assumption in 2016. With this assumption, the share of the statutory expenditure of GDP would be below the current level in the long run. At the end of the projection period, the TyEL contribution would be about 3 percentage points below the baseline projection.

*The incidence rate of disability pensions* has a great impact on the statutory pension expenditure. In the high incidence rate projection, the incidence rate of disability pensions would decrease at a slower pace than in the baseline projection, settling at 19 per cent above the baseline projection at the end of the projection period. In the high incidence rate projection, the expected effective retirement age for 2025 is 62.3 years, which is about one month below the set target of 62.4 years. In the low incidence rate projection, the target is exceeded by 0.3 years. In the long run, a high incidence rate would increase the TyEL contribution rate, while a low incidence rate would decrease the TyEL contribution by 0.7 percentage points compared to the baseline projection.

In the long run, an increase in the *earnings growth* by half a percentage point would decrease the pension expenditure relative to GDP by approximately one percentage point compared to the baseline projection. The purchasing power of pensions would grow significantly, even though the pensions would decrease by more than three percentage points relative to the average earnings. In the long run, the TyEL contribution rate would be approximately 0.7 percentage points below that of the baseline projection. The effects of a slow growth rate would be the opposite.

The *employment rate* affects the pension expenditure relative to the wage sum 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 be lower than those in the baseline projection. In the latter part of this century, a constant deviation from the baseline projection would not show in the pension expenditure relative to the wage sum or the 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 value of pension assets and, in the long run, lead to a lower TyEL contribution rate. A one-percentage-point increase in investment returns would reduce the contribution rate by slightly less than one percentage point in 2030 and by more than four percentage points towards the end of the century.

An *optimistic economic scenario* combines high employment rates with fast earnings growth and high investment returns. High employment rates and a fast earnings growth reduce the pension expenditure relative to GDP. In the long run, this ratio will remain slightly over one percentage point below the baseline projection. In addition, high investment returns will lower the contribution rate. The TyEL contribution will be several percentage points below the baseline projection. In the optimistic scenario, the average pension will be considerably higher than in the baseline projection. However, in the optimistic economic scenario, pensions relative to average earnings will stay below that of the baseline projection. This is due to the fast earnings growth.

The *pessimistic economic scenario* combines low employment rates with slow earnings growth and low investment returns. In the long run, the ratio of pension expenditure to GDP will be slightly more than one percentage point higher than in the baseline projection. The TyEL contribution will be higher than in the baseline projection as of the early 2020s. At the end of the projection period, the TyEL contribution will reach the 35 per cent level. In the pessimistic economic scenario, the average pension will be lower but the ratio of pensions relative to average earnings will be higher than in the baseline projection.

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