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FINNISH CENTRE FOR PENSIONS, REPORTS

SUMMARY

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Financing of earnings-related pensions

This report focuses on the financing of the Employees Pensions Act (TyEL) of the statutory Finnish pension scheme. The report is based on an assignment given by the central labour market organisations in the summer of 2019. According to the assignment: The Finnish Centre for Pensions shall examine the functionality and the level of funding and the structure of the earnings-related pension contribution. The aim is to find ways to secure pension benefits, to strengthen the financial sustainability of the pension scheme and to promote contribution stability. The effects and possibilities to enhance the transparency of client bonuses should be examined after the change in criteria for allocating client bonuses from the beginning of the year 2017. The research will be carried out together with the Finnish Pension Alliance TELA by the end of March 2020.

The report is divided into two parts. The first part assesses the functionality of the financing technique and the level of funding. The second part examines the possibilities to increase the transparency of client bonuses.

During the writing of the report, the preventing measures against the coronavirus pandemic have led to a significant fall in the economy and pension assets. These effects have not been taken into account in the projections of this report.

TyEL is a defined benefit (DB) and earnings-related insurance against the risks of disability, longevity and the death of a breadwinner. The financing is based partly on annual contribution income and partly on funds raised in advance. In the DB pension

scheme, the level of contributions and the amount of pension assets react to changes in the economic and population development. The future level of the TyEL contribution involves significant uncertainty.

Wage-based contributions are the most important income source in the financing of annual TyEL pension benefits. Therefore, the growth rate of the wage sum has a crucial impact on the financing possibilities of future pension expenditure.

The total fertility rate in Finland decreased from almost 1.9 children in the early 2010s to less than 1.4 children in 2019. If the low fertility rate remains permanent, the growth of the wage-sum will also slow down permanently. The impacts of the low fertility rate on pension financing will show after a long transition period. This makes it possible to respond in advance to the consequences of low fertility.

Low fertility is a reason to increase pension funding. The consumption of pensioners can be financed by transferring contributions paid by the working-age population to the retired. Alternatively, the working-age population could accumulate assets that, together with their investment return, are used to finance their own pensions. The reduction in the number of people paying pension contributions can be compensated by increasing pension funding. The low fertility rate also means that there are fewer dependent children and young people than before. This increases per capita consumption opportunities. With the help of funding, part of the increase in consumption opportunities could be postponed to the future.

In the last decade, wage growth has slowed down. In the 2010s, the average annual real growth in wages was only 0.6 per cent. The corresponding figure was 2.2 per cent in the first decade of the 21st century and 1.5 per cent in the 1990s. It remains to be seen whether the change will be permanent or whether the growth rate of wages will return to its long-term level.

Diminishing labour productivity and wage growth would mean that the productive potential of the economy would grow more slowly than before. In other words, our standard of living would increase at a slower rate than before. A slower wage growth means that the level of pension benefits will increase in relation to wages. This is because both accrued and paid pensions partly follow the consumer prices and partly the earnings level.

Increasing or decreasing funding are not likely solutions if the aim is to prepare for a slower-than-usual earnings growth. Rather, the question is whether the current indexation rules will produce the desired outcome in a possible slow growth world.

Interest rates have declined since the 1980s. Particularly nominal interest rates have declined since the 1980s, but the same trend applies also to real interest rates. Currently the long-term nominal interest rates of those euro-area countries that are assessed as solvent are approximately zero. Low interest rates could have many implications for pension financing.

Low nominal interest rates mean that the present value of future commitments, which are fixed in euros, has increased. The funded parts of TyEL pensions are

such commitments. Despite near-zero interest rates, TyEL's technical provisions are calculated using the nominal interest rate of 3 per cent.

The technical provisions are sufficient to finance the pension provider's obligations, that is, the funded parts of the pensions, if the assets covering the liabilities yield 3 per cent or more in nominal terms. In good years, investment income could accumulate so that the risk of a shortfall of funds would be low if the yield requirement were only 3 per cent. In practice, the yield requirement consists of a nominal interest rate of 3 per cent and additional fund increments based on the average solvency of pension providers and return on equity. The fund increments increase technical provisions and effectively cause the 3-per-cent yield requirement to cover a larger funded portion than before. The probability that the solvency capital of pension providers will prove insufficient seems relatively high.

Low interest rates affect all funded DB plans in approximately the same way. In many countries, private sector DB plans have been closed and replaced by defined contribution (DC) plans. However, low interest rates are also a problem in DC plans. The pension saver must bear the risk of equity investments or be satisfied with fixed income investments with low returns.

Due to lower interest rates, the expected returns of other asset classes are also likely to have decreased. Expected returns can be increased by allocating more pension assets to riskier and, on average, higher-yielding asset classes.

However, increasing the investment risk would not be an unproblematic solution. The fall in interest rates means that DB pensions have become more expensive. Investing pension assets in riskier asset classes will not change this. A change in investment policy could reduce the cost of benefits only if, at the same time, the financial risk is transferred to the benefits to a higher degree.

Without an increase in risky assets, the decline in expected returns is reflected in the expected upward pressure on contributions. As the investment risk increases, the expected contribution rate would not need to increase, but the risk associated with the contribution would increase. Bearing the risk is a financial cost.

Increasing the share of equities in the investment portfolio is not as effective today as it used to be, because the share of equities is already significant at the outset. Even with current investment allocations, the contribution rate can be reduced if the stocks perform well. Equity risks are not independent of other financial risks of pensions. Equities will probably perform poorly if there are general economic problems.

Our report illustrates the implications of six different financing techniques. Four of these changes would adapt financing to the world of low interest rates. One of the changes concerns the detail of the current regulations on how increments to funded old-age pensions are targeted to different age groups. The sixth option is to link the amount of old-age pension to be funded to the age structure of the population.

One way of adapting to the reduced interest rates would be to lower the currently fixed 3-per-cent interest rate used to calculate the amount of technical provisions.

This technical interest rate was reduced from 5 per cent to its current level in the late 1990s due to reduced interest rates. A reduced technical interest rate would alleviate or eliminate the discrepancy between the prevailing interest rate level and the assumptions used in the calculation of technical provisions. One function of a lower technical interest rate would be informative. Changed prices for future payments would be reflected in, among other things, the TyEL contribution. The lower technical interest rate would strengthen the ability of pension providers to meet their commitments. The technical interest rate sets a lower limit on the technical provision's yield requirement, and lowering this lower limit would reduce solvency problems.

A reduction in the technical interest rate would significantly increase old-age pension liabilities of pension providers if the size of the funded pension components were kept unchanged. In practice, these increases resulting from the interest rate cut would be so large that they could not be implemented. Therefore, in the projections, the funded parts of old-age pensions are scaled down so that the amount of technical provisions remains unchanged by age and gender, despite the reduction in the interest rate. A similar procedure was applied when the technical interest rate was reduced from 5 to 3 per cent.

The technical interest rate is directly related to the level of the old-age pension contribution. Currently, the average old-age pension contribution is about 3.5 per cent of the wages. If the technical interest rate would be lowered to 2 per cent and the accrual rate of the funded old-age pension were kept at 0.4 per cent, the old-age pension contribution would rise to almost 5 per cent. With the technical interest rate of 0 per cent, the average old-age pension contribution would rise to 10 per cent.

Thus, reducing the technical interest rate so that the funded old-age pension accrual remains unchanged would immediately increase the pension contribution rate. With a relatively high probability in the longer term, the contribution rate would decrease significantly compared to the contribution rate under current legislation. However, the contribution rate would not necessarily decrease even in the long run. In low-yield scenarios, the amount of liabilities discharged will not increase much, even if funding is increased. Instead, the contribution to be funded would increase, resulting the overall contribution rate to rise in these scenarios.

On average, the solvency of pension providers would strengthen due to the lower technical interest rate. This would have two consequences. First, the risk of insufficient solvency capital would be lower. Also, the change would make it possible for pension providers to increase the share of risky asset classes in their investment portfolios so that the average return on assets would increase.

Another option would be to reduce the technical interest rate so that the average old-age pension contribution would remain unchanged. In this case, the accrual rate of the funded old-age pension should be reduced. If the technical interest rate would be reduced to 2 per cent and the average old-age pension contribution was kept fixed at the current level, the accrual rate of the funded old-age pension would have to be reduced from 0.4 to about 0.3 per cent.

This change would also mean that the TyEL contribution would increase in the near future. As was pointed out earlier, the reduction in the technical interest rate meant a reduction in funded old-age pensions. As a result, the amount of funded old-age pensions disbursed in the early 2020s would be lower than without a reduction in the technical interest rate. The smaller disbursement of the funded pensions should be financed by raising the pay-as-you-go component of the contribution.

Even if the old-age pension contribution were to be kept at the level of the current legislation, the effects of the reduction in the technical interest rate on the TyEL contribution would be qualitatively similar to those described above. The effects on the amount of pension assets, solvency and the average return on pension assets would also be as described above. The most significant difference from the previous case would be that the amount of money collected through the old-age pension contribution would not increase much in this case.

A third option considered in adjusting to lower interest rates has to do with the augmentation coefficient and its lower limit. The augmentation coefficient is a technical aid used to increase old-age pension liabilities if the average solvency ratio of pension providers is high enough. The lower limit of the augmentation coefficient is currently 3 per cent, that is, the interest rate used to discount liabilities. The abolition of the lower limit would require a reduction in funded pensions if the average solvency of pension providers falls low. Enabling the reduction of funded pension parts would shift TyEL financing technique towards DC schemes.

The effects of removing the lower limit on the augmentation coefficient on contributions, assets, solvency and return on pension assets are very similar to the effects of lowering the technical interest rate if, at the same time, the old-age pension contribution is scaled to the level based on the current legislation. Both of these regulatory changes lower the yield requirement resulting from the technical interest rate and the augmentation coefficient, but they do not affect the amount of the funded old-age pension contribution.

A fourth option considered in adjusting to lower interest rates would be to move to a DC technique for future old-age pensions financing. The current financing of old-age pensions is based on a DB technique. The old-age pension contributions and liabilities are calculated based on the assumptions of mortality and interest, using the expenses for which the pension provider is accountable for as a starting point.

However, current financing technique also has some elements of a DC system. The funded part of the pension is not a fixed share of the benefit actually payable. The benefit is indexed to earnings and consumer prices. In practice, the funded part is indexed to the average investment returns of pension providers. The decline in interest rates has also diverted the financing technique from traditional benefit funding. Discounting technical provisions at an interest rate that is substantially higher than risk-free interest rates is a phenomenon of the 2010s.

A transition to a DC financing system would clarify the financing technique. In addition, the DC financing system would allow investment allocations to be changed in the desired direction, towards greater or lesser risk-taking. The significance of the

technical interest rate and the mortality assumption would decrease significantly. As both are, by nature, assumptions about future developments, DC financing of future pensions would not be as dependent on assumptions as the current financing technique.

On the other hand, the transition to a DC financing system could also cause problems over time. It would mean that the accumulation of old-age pension funds would be completely decoupled from the accrued benefits. The target level of funding would be more obscure than at present. If the investment risk of pension assets were increased, the amount of pension funds could become very random in the long run. As a result, the amount could remain very small without any warning signals based on regulations. The need for regulations on the amount of funding would probably be emphasized.

This report presents an illustrative projection of the transition to a DC system for funded future old-age pensions. The projection concretizes some of the effects and raises issues that require further investigation. In the option under consideration, investment returns will be discharged to reduce the level of pension contribution at a slower pace than in the current legislation. As a result, the amount of funding will increase permanently, and the contribution rate will be higher than in the projection based on current legislation for a long time.

The decline in fertility in the 2010s anticipates a situation in which there will be fewer people paying pension contributions relative to pensioners. In a funded pension scheme, this would not be a problem, as the amount of funding automatically adjusts to future pension expenditure. In the pay-as-you-go scheme, however, the reduction in the number of people paying pension contributions is a problem.

On its own part, partial funding helps to stabilise the financing of TyEL pensions in the event of a possible reduction in the number of insured persons. However, financing could be made more efficient by taking into account the cost pressures of the pay-as-you-go parts of pensions.

This report examines the funding technique which adjusts the amount of old-age pension to be funded to the changes that are in sight in the ratio between the number of pensioners and the working-age population. The amount of funding would depend only on the observed population structure, not on forecasts. In the projection, the size of the old-age pension component that is to be funded is adjusted for each age group to take into account the size of those age groups that will finance accrued pensions in the future.

The reference year of the population structure is set to 2022. If the number of people paying pension contributions decreases in relation to the level of 2022, the old-age pension to be funded will be increased compared to the level under current legislation. Otherwise, the amount to be funded will be reduced. The first year in which the alternative funding technique is in force is 2023. This would mean a gradual change in the amount of funding.

If fertility remained at the current level, this funding technique would increase the amount of funding compared to the current legislation. The pension contribution

would rise earlier than in the projection under current legislation, but the contribution would not need to be raised as high towards the end of the century. If the total fertility rate were to return to around 1.7, the funding technique linked to the changes in the population structure would lead to a level of funding in line with current legislation.

The administration of the Finnish earnings-related pension scheme is decentralized. A private sector employer can take out statutory earnings-related pension insurance for its employees from a pension insurance company, pension fund or industry-wide pension fund. A pension insurance company of earnings-related pensions can grant a discount, that is, a client bonus, on the employer's share of the pension contribution. Client bonuses are parts of the surplus distributed to the customers of pension providers, which is accrued from the efficient administration of pensions and successful investment decisions. In addition to employers, employees also benefit from client bonuses in the form of lower pension contributions.

Several changes have been made to client bonuses in recent years. For example, the criteria for allocating client bonuses can now vary from one pension insurance company to another. As a result, transparency and comprehensibility may have suffered. The second part of this report describes three options for improving transparency: (1) evaluation of how client bonuses are determined and the level of client bonuses, (2) agreeing on a total contribution without client bonuses, and (3) improving and increasing the amount of information related to client bonuses.

The first option would require even more detailed consideration and impact analysis. It would be important to assess whether the technique works in the best possible way in securing the financing of the pension system, especially in the current and evolving operating environment.

The second option has both pros and cons. The change could further emphasize the importance of client bonuses as a means of competition. The transparency of client bonuses from the perspective of the pension system could also be improved. However, the change would cause greater fluctuation in the average TyEL contribution. This would also be reflected in the YEL contribution and the employee's share of the contribution.

The third option described relies on the activity of the pension insurance companies themselves. Information about client bonuses and their purpose could be improved by making some joint decisions and some at the discretion of each pension provider.

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