EXECUTIVE SUMMARY

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Linking retirement age to life expectancy – what happens to working lives and income distribution?

This study investigates the impact that pension policy measures aiming to extend working careers have on working careers, retirement ages and income distribution, as well as on the sustainability of the earnings-related pension scheme and public economy. Our research report is divided into four articles, each addressing various research questions. The first article focuses on the impact that pension reforms have on working careers and income distribution. The second article ponders ways in which to tie the lowest general retirement age to the life expectancy. The third looks at how tying the general retirement age to life expectancy development impacts the size and financing of pensions and the sustainability of the public economy as a whole. The articles are linked, so that the third utilizes the results of the first two. In the last article, the described reform is compared to reforms in the other Nordic countries and the reform proposals featured there.

Next we will present the most important results and conclusions from each article.

Pension reforms, careers and income distribution

The first article evaluates the impact that policies aiming to extend working careers have on the career decisions and income distribution of employees close to retirement age. The reforms investigated have raised the age limits for old-age pension, part-time pension and the so-called unemployment pathway to retirement. We also evaluate the impact of cutting the monthly pension.

When it comes to extending careers, the most important conclusions are the following:

- If the lowest retirement age is raised, it also becomes necessary to limit access to the unemployment pathway and part-time pension. The impact on careers would otherwise be scant, since raising the retirement age increases use of the unemployment pathway and part-time pension.

- According to the model, removing the part-time pension and the unemployment pathway altogether extends working careers by about two months. If the lowest general retirement age is subsequently raised by two years, careers will further be extended by about 8 months. The combined effect is thus 10 months. A relatively large share of individuals that are close to retirement age are disabled. That limits the impact that raising the retirement age has on working careers. Raising the retirement age would also increase unemployment among older individuals.

- Raising the retirement age especially serves to extend the working careers of the well-educated (high-income bracket). This is partly due to the fact that from their point of view, the unemployment compensation is small compared to the salary. Those who are highly educated are thus usually better off trying to extend their working careers rather than rely on unemployment compensation. The highly educated also become disabled less seldom than others.

- Cutting monthly pensions does not extend careers very much, but still stokes the public economy. At the same time, however, the consumption possibilities of retired individuals are diminished.

- If the so-called incentive accrual (super accrual) rate is replaced by the actuarial increase for deferred retirement, the size of the increase should be at least 6 per cent per year in order for it to work as an incentive for extending careers.

- Instead of raising the lower general retirement age, the age of "full pension retirement" could be raised. The impact on working careers are similar as when raising the lowest retirement age, but depend largely on the size of the deduction for early retirement.

From a distributional perspective, the most important conclusions are the following:

- Raising the retirement age is not particularly problematic from a distributional perspective. There are at least three reasons for this. First of all, those in the worst position are usually long-term disability pension retirees. Raising the retirement age does not weaken disability pensions. On the contrary, raising the retirement age may improve disability pensions by way of raising the projected pension rights. Secondly, raising the retirement age does not weaken unemployment security, which also is more important for those with a low income than a high one. Thirdly, raising the general retirement age postpones the starting age of the accelerated accrual rate. The accelerated accrual rate is particularly beneficial to those with high income.

- Limiting the unemployment pathway mainly weakens the position of those with a comparably low income.

- Raising the general retirement age increases the unemployment of the ageing, especially in sectors with a high risk of employment termination.

- From the perspective of income distribution, cutting monthly pensions is to some degree problematic, at least if it also means smaller disability pensions.

- Cutting monthly pensions especially affects the benefits received by women over a lifetime, since women live longer than men on average.

The impact of policies has been measured using a simulation model that depicts the decision-making of wage earners in different situations. The model groups individuals based on age, gender and education. The decision to continue working, or to use one of the various exit routes from working life, is made with the insecure future in mind. Wage earners face the risk of losing their jobs, the risk of becoming disabled and the risk of a surprisingly long life. The size of these risks has been evaluated based on statistics. For instance, people with low education have a higher disability risk and shorter average life span than others.

The model also contains a detailed description of the rules based on which pension benefits in Finland are determined. The model also takes into account unemployment security and the taxation of earnings. These rules also affect working career decisions.

Our results are based on comparing individual working careers in the model, within the framework of different pension schemes. Distributional effects are evaluated in several ways. We considered how pension reforms affect, for example, transfers and taxes, consumption and average annual pensions of various individuals with differing wage levels. We also evaluate the impact that reforms have on relative poverty and unemployment in different groups.

Extending life cycles and the earliest eligibility age for retirement

The second article investigates methods of tying the general retirement age of the earnings-related pension scheme to life expectancy, and evaluating the impact. There are two main reasons why raising the general retirement age is a desirable thing as life expectancy increases. The first is the adequacy of pensions. If working careers are not extended while life spans are, the life expectancy coefficient will cut monthly pensions and they may become very small in view of the aims of the pension scheme. The second reason is that the length of working careers affects state and municipal sector finances – the longer the working careers, the greater the taxation income.

Indexation of life expectancy is better than setting a discretionary retirement age, since each cohort can more easily predict his or her lower retirement age. In this context, indexing the retirement age can be compared to the life expectancy coefficient, which is also not

discretionary but depends on the observed lowered mortality rates, and can easily be predicted for many years ahead.

We review three different principles of determining the general retirement age that are related to life expectancy, adulthood age expectancy and the estimated number of working years. They appear to lead to a fairly identical increase in the retirement age, provided that life spans develop as expected. Based on the current population forecast, the retirement age would rise by about a month per year over the next 50 years. The choice of starting point for comparison will have very large significance for future retirement ages.

When the retirement age is dependent on the development of life spans, one must consider adapting the life expectancy coefficient or possibly replacing it with a less invasive version. If it is not mitigated, the life expectancy coefficient together with a rise in the old-age retirement age will lead to lowered rates of compensation as life spans grow longer. Removing the coefficient altogether, on the other hand, would raise the rate of compensation continually as retirement ages are postponed, which is also not the intent. The mitigated life expectancy coefficient tied to retirement age (the current life expectancy coefficient to which an increase for deferred retirement is made when the retirement age rises) appears to function well, at least based on the rate of old-age pension compensation and capital values, and at least for those who work right up to the general retirement age. The earnings-related pension scheme would then work so that extending life spans raise the general retirement age, and the increase in the general retirement age expands the life expectancy coefficient, in other words decreases the cut in monthly pensions.

According to the study, tying retirement age to life span expectancy can be carried out so that the capital value of the old-age pension increases if you work until retirement age, but pension contributions collected from additional work would increase more. This way, an extended working career would also improve the finances of the earnings-related pension scheme in addition to the State and the municipalities. This impact is reviewed in article 3.

Linking retirement age to longevity: economic assessment

The third article reviews how the linking of the retirement age to the development in life expectancy affects pension size, pension financing and the economic sustainability of public finances.

The reviewed pension reform includes the following amendments to the current earnings-related pension rules:

- The lower retirement age is linked to the adulthood life expectancy (by definition, adulthood begins at age 18) so that the retirement age divides the adulthood life expectancy in the same proportion each year. When the linking is introduced, the retirement age is raised by 10 months. If the life expectancy of a 63-year-old grows by

an ample six years over a period of 50 years, the retirement age is raised by four years as a result of making this link. The lower retirement age of the part-time pension and the unemployment pathway to retirement is raised in the same manner since, based on the reviews presented in the first article, raising only the general retirement age would not significantly prolong working careers.

• The current life expectancy coefficient is mitigated, cutting monthly pensions to a lesser degree than the current life expectancy coefficient does. The mitigated life expectancy coefficient is also applied to the earned part of the disability pension.

• The current starting age for the accrual rate of 1.9 per cent rises by 75 per cent of the increase to the retirement age.

• The accelerated accrual rate (4.5%/year) is abolished and retirement past the retirement age is awarded by a deferral increase. If a person continues working past the lower retirement age, pension accrues at a rate of 1.9 per cent of the earnings. Alternatively, the accelerated accrual rate remains, but its starting age is raised in parallel to the raise of the general retirement age. In terms of the financing of pensions and national economy, both alternatives have an equal impact, and the results of this article apply to both. In our opinion, the first alternative is better because of its more equal treatment of persons with various income possibilities, as stated in the second article with reference to Nicholas Barr's (2013) report.

The reviewed pension reform is an example of how the earnings-related pension scheme can be adapted to the development of life expectancy. The aim of the example is pedagogical and outlines which issues should be taken into account if the retirement age is linked to life expectancy. The aim is also to show how certain technical problems relating to this issue can be solved. The example also illustrates the magnitudes of the effects.

The reform is compared with baseline projection, which has been calculated based on current rules on how the pension is determined and on pension funding, under the assumption that earnings-related pension contributions are flexible when necessary. The working careers of the baseline projection will be prolonged with two years by 2060. The pension reform will prolong working careers even further.

The general retirement age would rise by approximately one month per year if the expected life expectancy rises as projected. The lower retirement age would rise to 65 years by 2030 and 67 years by the end of the 2050s. At the end of the 2020s, the lower retirement age would be clearly below the typical general retirement age of the EU-15 Member States.

Linking the retirement age to life expectancy prolongs working careers and thus increases the labour supply. In assessing the prolonging of working careers, we have made use of the results on the long-term impact on working careers presented in the first article of this publication. Based on this, we conclude that working careers will be extended by 1 year and three months

by 2060 as a result of the pension reform. The economy adjusts to higher employment rates in many ways. In addition to increasing production, investments also increase so that the capital stock corresponds to the larger work supply. A reduction of the earnings-related pension contributions allows for an increase in wages, but the impact of the increasing labour supply is higher, so wages will decrease slightly compared to the baseline projection. This will also reduce consumer prices. Although the wages are reduced, the increase in working hours and the falling prices improve the wage earners' purchasing power and hence increase consumption. Part of the benefit will spill abroad, through a weakening of the terms of trade.

The extension of working careers raises the tax income of the State and the municipalities through growing tax bases. The sustainability gap of public finances will decrease by nearly one percentage point.

The described pension reform is assessed to reduce earnings-related pension expenditure in relation to the wage sum and to reduce the earnings-related pension contribution by less than one percentage point as of 2018 and by two percentage points by 2050. Future pensions will not change significantly due to this measure.

The impact of the reform on intergenerational income distribution is minor. All generations entering working life after the reform will benefit financially to a slight degree, while the cohorts currently in working life will lose slightly.

Nordic comparison of pension reforms

The fourth article presents a brief overview of how the pension scheme in other Nordic countries is adjusted to the life expectancy and compared to the proposed Finnish reform.

Already in 1999, Sweden presented a model in which the retirement age is flexible and the amount of the pension is adjusted according to the retirement age selected by the individual and the life expectancy of his or her birth cohort. The earlier the individual retires and the longer the cohort is expected to live, the smaller the pension. This solution is well suited in a defined contribution pension scheme, in which a certain pension capital is collected during the working career and consumed in retirement. In its pension reform in 2005, Finland introduced the flexible retirement age and the life expectancy coefficient, but chose the accelerated accrual rate instead of an increment for deferral as a reward for continued working. Norway copied the Swedish reform in closer detail in this respect. The idea in all three models was that the citizens would understand to retire later as the retirement age is flexible and pension is cut due to longer life expectancies.

Denmark chose a different solution. In the future, national pension retirement age in Denmark will be determined so that the expected number of years of pension payment is fixed at 14.5 years. The increase in life expectancy raises the retirement age with the same amount, albeit with a 15-year delay. Before making this link to the life expectancy, the retirement age will be raised.

The Swedish pension committee that submitted its proposal in the spring came to similar conclusions as Denmark. In Sweden, the limits of the flexible retirement age are suggested to be tied to life expectancy after a discretionary raising of the limits. One key justification for this is the observation that the retirement has not been postponed during the more than ten years that the flexible retirement age and the pension adjustments of a cohort to its life expectancy have been in force. The model presented in this publication emulates the Swedish proposal in that it maintains a flexible retirement age but links its limits to life expectancy. What remains to be examined is whether Finland should also raise the retirement age in a discretionary manner before making this link.

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