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Automatic balancing mechanisms of pension systems

– theory and experiences of brakes and
life expectancy coefficients

Ageing is a phenomenon characteristic of the global population development. Pension expenditure has grown due to prolonged periods of retirement and increased number of pension recipients. As birth rates decline, the financial base for collecting pension contributions becomes more narrow. Over the last few decades, many countries have responded to this development by introducing automatic balancing mechanisms.

In this survey, we examine automatic mechanisms that strengthen the financial stability of pension systems. The subject is approached from the point of view of research, focusing on features desirable to the automatic mechanisms and possible benefits compared to single reforms, but also from a practical viewpoint, by presenting some automatic balancing mechanisms that are being used.

The balancing mechanisms may vary significantly in their function and impact. However, the goal of all balancing mechanisms discussed here is the same: to take into account the impact of the increase in life expectancy on the long-term sustainability of pension financing. In the case of the deteriorating dependency ratio, balancing mechanisms have the effect of lowering the monthly pension benefit, and encouraging longer working careers.

The report begins by reviewing demographic changes that put pressure on pension financing. Following this, we ponder what is meant by automatic balancing mechanisms in the pension system, the features of a good balancing mechanism, and comparing these to an alternative reform based on single changes to the law governing the pension scheme.

The report describes alternative practices adopted in different countries with the intention to automatically respond to changes in the dependency ratio. In notional defined contribution (NDC) systems, the automatic reaction to imbalance in the various elements of financing is relatively comprehensive. NDC system operations are reminiscent of private pension saving programmes seeking to adjust life cycle consumption: pension benefits accrue from a person's entire history of earnings, and at the time of retirement the pension benefit is defined as an annuity based on the accrued pension wealth. The contribution level of the systems is fixed, and changes in the dependency ratio are accommodated by increasing the supply of work or by lowering the benefit. The contributions are not actually accruing to an account, as it is the active workforce that finances the system. Notional accounts are credited with an administratively defined interest that adapts assets and liabilities to the demographic changes.

Pension contributions and benefits are closely tied to each other in NDC systems, which is why this system is more encouraging in terms of labour supply than systems that distribute income. For example, in Sweden, Italy, Poland and Latvia, the NDC system was implemented when the statutory system was reformed. However, in comparisons it becomes clear that there are significant differences between countries in how the pension accrues, how accounts are managed during retirement, and in how the systems react to imbalance. As an example of NDC systems, this report primarily reviews the Swedish pension system and its balancing mechanism, but it is also compared to other NDC systems in use in Europe.

Portugal and Germany implement a balancing mechanism similar to the life expectancy coefficient used in Finland. It automatically combines the increase in life expectancy with the pension benefit amount in such a way that a life expectancy on the rise does not weaken the financial sustainability of the pension system. As life expectancy increases and the dependency ratio weakens, the balancing mechanism affects the monthly pension benefit by lowering it, either through affecting the level of starting pensions or indexation of the pension benefits and pension accrual. There is also uncertainty over the development of life expectancy, which means that the actual impact of the balancing mechanism on pensions, incentives for labour supply and equality between generations will not be apparent until the mechanisms have been in place for a longer time.

In France and Denmark, the lengthening life expectancy is taken into account by tying the pensionable age (Denmark) for old-age pension and the length of a working career entitling to full pension (France) to the life expectancy coefficient. From the perspective of the benefit recipient, their impact is virtually the same as in mechanisms such as the life expectancy coefficient: as life expectancy increases, the working career must also be prolonged in order for the monthly pension benefit not to shrink. In addition to the impact of the incentive, the mechanisms implemented in Denmark and France also function as an unambiguous guideline for how much careers ought to be prolonged in order for the impact of the increased life expectancy on the pension financing balance to be acknowledged in full.

The automatic balancing mechanisms do not in themselves guarantee that systems are financially sustainable, or that they would achieve sustainability even in the long term once the mechanism has been activated. As a matter of fact, complete restoration of the financial balance is a goal seldom stated explicitly, and room for manoeuvre has been left for considering

specific situations when evaluating the financial sustainability of the system. This is the case, not only in defined benefit systems that have implemented balancing mechanisms reacting to the life expectancy of new retirees, but as a rule also in NDC systems. Of the European systems implementing NDC systems, it is only in Sweden that funding is automatically balanced based on system regulations. In other countries, this measure requires political decision-making. Defined benefit systems, for example the life expectancy coefficient used in Finland, only observes the impact of a relative increase in life expectancy, omitting other factors that affect the sustainability of the pension system.

In systems that react to the dependency ratio, it is possible to affect the benefit level by changing the labour supply over the course of the life cycle. Based on calculations presented by the European Commission, it would appear that countries that have implemented an NDC system are capable of stabilizing their pension expenditure in relation to the purchasing power measured by the gross national product. With the exception of Sweden, this appears to require significant extensions of working careers and a clear increase in employment rates. Despite the increase in labour supply, the replacement rate between pensions and salaries is expected to decrease significantly. In all likelihood, this will lead to alternative ways of preparing for the time following the end of the working career. In the sustainability predictions of the European Union, this shows as a rise in the importance of second-pillar contract pensions in Sweden and Denmark. In these countries, contract pensions technically cover the employee population in its entirety. The replacement rate is also expected to decrease in countries with a defined benefit pension system, where decline in the dependency ratio is responded to according to a previously determined mechanism. Compared to countries with NDC systems, the deterioration in the dependency ratio is less severe in Portugal, Germany and Finland. On the other hand, the share of pension expenditure in the national income is growing significantly in these countries. In Finland, the cost pressure is not as large as the needs to raise the expenditure indicate, since the statutory system is partly funded.

The Publication is available only in Finnish:

Eläkejärjestelmän automaattiset vakautusmekanismit – teoriaa ja kokemuksia jarruista ja elinaikakertoimista. Eläketurvakeskuksen raportteja 2010:7.

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Ordering of publications:

aineistotilaukset@etk.fi
ISBN 978-951-691-140-6 (printed)
ISBN 978-951-691-141-3 (PDF)
ISSN-L 1238-5948
ISSN 1238-5948 (printed)
ISSN 1798-7490 (online)

