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SUMMARY

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Impact of solvency framework on pension provider's risk bearing capacity

The Finnish private sector earnings-related pension scheme is a defined-benefit scheme in which part of the accrued pensions are funded in advance to lower future pension contributions. The funded component is invested on the investment market by authorized pension providers. The pension providers' investment risks and ability to meet their obligations to policyholders are monitored within a solvency framework, under which they have to act. The framework should be consistent with the objectives of the pension system in order to control pension providers' investments according to those objectives. Building such a framework is very a complex task, and the knowledge of longterm properties of different solvency frameworks is currently insufficient. For example, within the Finnish pension scheme, the cyclical nature of the capital adequacy framework and the risk-bearing capacity (i.e., how much a pension provider is allowed to invest in equities) have been discussed.

This study compares frameworks based on one-year and long-term perspectives through stochastic simulation. The study takes into account two dimensions in particular: 1) how early and precisely the framework indicates a lack of capital and 2) how well the framework supports asset management, that is the financing of pensions until the paying obligation mature. Point 1 is essential, because the earlier the inadequacy of the capital is discovered, the sooner the necessary corrective measures can be taken to minimize potential losses to policyholders. Point 2 is associated with the contribution level because the better the pension provider is able to optimize its investments relative to pension payments, the better it will be able to provide pension insurance at lower prices. This is particularly relevant for the statutory earnings-related pension system, in which the payment level directly impacts the competitiveness of Finnish work through labor costs.

According to our results, a solvency framework with a long-term perspective is able to detect earlier if a pension institution is likely to be unable to pay pensions earlier than a one-year framework. At the same time, a framework with a long-term perspective is less likely to indicate incorrectly an inadequacy of capital. A solvency framework with a long-term perspective also allows a greater amount of equity investments without increasing the bankruptcy probability, since the long perspective removes procyclicality from the framework.

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