

PRESS RELEASE

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Fraunhofer ITWM Conducts Study on the Costs of Pension Insurance Products

Prescribed Cost Information Only Shows Theoretical Extreme Cases Instead of a Realistic Picture

A new study by the Fraunhofer Institute for Industrial Mathematics ITWM analyzes how high the effective costs of typical pension products are under realistic cost parameters. It shows that the costs resulting from calculations based on the specifications of the Federal Ministry of Finance significantly exceed the realistic costs.

For subsidized pension products (basic and Riemer pensions), the legislator stipulates a maximum of two pages of information for consumers: the product information sheet (PIB). This is available as an individualized version – which is given to customers before the contract is concluded – and as a »sample PIB«, which is available online. The individual PIB considers the fund selected by the consumer and the term and entry age specified by the consumer. The sample PIB, on the other hand, is based on standard data. Both forms of PIB show the effective costs of a product. These express the extent to which the return on the pension insurance is reduced by all the costs it contains – in other words, what is remaining at the end of the day.

Studies Based on Sample PIBs Cannot Provide a Realistic Result

The Fraunhofer ITWM has now analyzed the informative value of the various product information sheets. In recent years, various studies brought into circulation in which the publishers of such publications have made their own calculations and interpretations of product costs based on sample PIBs. This gives the impression that these are actual costs – but this is not the case.

The researchers at the Mathematical Institute have shown in their analysis using the example of the basic pension: The results of such studies based on sample PIBs do not correspond to reality. The way in which costs are reported should be further developed and adapted to give consumers a realistic picture of the »price« of their product. An additional disclosure of the actual effective costs could be the solution.

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Example Case: What Does This Mean in Practice?

For a person with a 30-year term, this results in an actual benefit of up to around €57,000, while a 40-year term would result in a benefit of up to around €127,000 (compared to a total maturity benefit calculated using a sample PIB). A realistic performance of five percent per annum before costs is assumed here, which leads to a total maturity benefit of around €134,000 (30 years) or €235,000 (40 years) when the actual costs are considered. The effective costs are the usual 1.23 percent (30 years) and 1.03 percent (40 years).

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Fraunhofer ITWM Calculates With Actual Costs

In its analysis, the Fraunhofer Institute in Kaiserslautern took a closer look at the effective costs of basic pensions. It compared calculations in accordance with the existing legal requirements (model PIB) on the one hand and calculations using realistic cost rates on the other. The latter are those that are predominantly used in practice.

Sample PIB Versus Realistic Calculation

When reporting the effective costs of a product, providers are obliged to use the most expensive fund for their calculation(s) and to exclude opposing cost-reducing effects (»maximum principles«). Cost-reducing effects are, for example, the frequent reimbursements from fund companies to the insurer, which are passed on to customers. A list and explanation of the usual cost-reducing effects can be found in the study on pages 5 and 7.

Realistic calculation: For this purpose, the cost calculation was not based on the most expensive fund, but on a fund (ETF) that is very often chosen by consumers in new business. Other common cost-reducing effects that played a role in the calculation are shown in detail in the study, see page 7. The researchers at Fraunhofer ITWM deliberately did not use the individual PIBs: This is because, although the effective cost calculation carried out therein is based on the individually selected funds, the usual cost-reducing effects in practice are also ignored here – just like in the sample PIB.

The Results of the Fraunhofer ITWM Analysis Briefly:

1. In the study, the financial mathematicians found considerable differences between the effective costs shown in the sample PIB and the results determined using realistic cost rates. In the sample PIB, the respective product was always presented as significantly more expensive – sometimes by as much as a factor of three.

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2. From this, the ITWM team deduces that studies based on the effective cost rates shown in the sample PIB are not suitable for making statements on realistic costs.
3. Rather, the sample PIB only provides consumers with a theoretical upper limit for the cost burden.

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Disclosure of Actual Costs Required as Supplementary Information

Prof. Dr. Ralf Korn is the scientific director of the study. The expert has specialized in the fields of insurance and financial mathematics at the Fraunhofer ITWM. He has also been teaching at the University of Kaiserslautern-Landau (RPTU) for many years and is an active member in many committees in this field. Among other things, he is Chairman of the German Society for Insurance and Financial Mathematics (DGVMF).

»The existing sample PIBs quickly paint a distorted picture – especially for customers and market participants who are not familiar with the subject. They are in no way suitable for general statements on the actual cost burden of products,« says Prof. Dr. Ralf Korn. »We therefore urgently suggest expanding the cost statement so that consumers can distinguish between the theoretical upper limit and the realistic case. This would provide a better basis for assessment. Our analysis shows ways in which the industry and politicians can implement this in practice. It enables legislators to make sensible additions and adjustments in the short term.«

Do Not Simply Relate Costs to the Contribution

The Fraunhofer study also illustrates why it is inadmissible to relate the costs incurred in a contract during its term only to the premiums paid in by consumers. This is because this approach completely ignores the performance of the insurance product (development of returns), which is just as relevant for customers.

Fraunhofer ITWM was commissioned by MLP to conduct the study. The company offers wealth management and consulting services ranging from pension provision to insurance. [MLP also has fundamental questions and experiences scientifically investigated.](#) In this role, MLP ensured that the necessary data was provided by five representative product partners (life insurance companies).

The complete German study is available for download on our website at:
www.itwm.fraunhofer.de/study-pension-insurance
[only available in German]

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Prof. Dr. Ralf Korn from Fraunhofer ITWM in conversation. ©Fraunhofer ITWM

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Exterior view of the Fraunhofer Center in Kaiserslautern ©Fraunhofer ITWM

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About the Fraunhofer Institute for Industrial Mathematics ITWM

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The **Fraunhofer Institute for Industrial Mathematics ITWM** in Kaiserslautern is one of the largest research institutes for applied mathematics in the world. We see it as our task to further develop mathematics as a key technology and to provide innovative impulses. Our focus is on the implementation of mathematical methods and technology in application projects and their further development in research projects. The close cooperation with partners from industry guarantees the high practical relevance of our work.

Their integral building blocks are consulting, implementation and support in the application of high-performance computing technology and the provision of customized software solutions. Our various areas of expertise address a wide range of customers: the automotive industry, mechanical engineering, the chemical industry, energy and the financial sector. This also benefits from our excellent networking, for example in the Simulation and Software-based Innovation Center.

About the Fraunhofer-Gesellschaft

The **Fraunhofer-Gesellschaft**, based in Germany, is the world's leading organization for application-oriented research. With its focus on future-oriented key technologies and the utilization of results in business and industry, it plays a central role in the innovation process. As a guide and driving force for innovative developments and scientific excellence, it helps to shape our society and our future. Founded in 1949, the organization currently operates 76 institutes and research facilities in Germany. Around 30,800 employees, most of whom are trained in the natural sciences or engineering, work on the annual research volume of around €3.0 billion. Of this, € 2.6 billion is spent on contract research.

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