Guaranties in life insurance products

Paper by **Marcin Kawiński** - member of the EIOPA Insurance and Reinsurance Stakeholder Group (IRSG)

This paper was drafted as the topic has been identified by the IRSG as one of the strategic areas. It must be seen as a discussion paper, and doesn't necessarily reflect the opinion of all IRSG members.

The guarantee can be described as a future provision of agreed value and it should be distinguished from insurance mechanism, which delivers conditional benefit. From this perspective the pure (unconditional) guarantee is delivered to all covered clients because basing on a contract all are eligible for agreed value. In practice there are different mechanisms that make above rule less strict, including some conditional measures, which make the guarantee effective in certain conditions only. Nevertheless the question on appropriateness outcome for clients and of assets backing the guarantee is valid regardless the detailed construction.

Flexible guarantee increases even further volatility of future income comparing to relatively stable desired/preferential level of outcome. Potential impact on household could be huge due to increasing number of conditional guarantee (based on macroeconomic and demographic variables) within public pension schemes. Also many issues on supply side need clarification. That is why further research is needed in this area, especially concerning:

- Importance and perception of guarantees for consumers (subjective approach) as guarantee effectively fixes the return from assets, preventing from additional profits or at least limit gains over guarantee, and at the same time decreasing marginal utility of wealth, which is characteristic for majority of society and implies higher utility from certainty than random events. This behaviour does not have to be rational from economic perspective but it is in line with behavioural characteristic of human being.
- Costs vs. outcomes of guarantee (objective approach) as the outcome main packages of measures that address (introduced by Solvency II and Omnibus II) is unknown and there is a lack of adequate investment instruments to back the liabilities with well recognized level of risk.
- Optimal set and scope of variables that needs to be adopted, as partial/temporary guaranties and targeted outcome could provide interesting alternative to fix guaranties but only if taking into consideration supply and demand perspective.

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Demand side perspective

It is important to start supply-demand analysis with client perspective and what guarantee means for a households or micro enterprises. Life-cycles are highly predictable in case of a household and determined by demographic characteristics. Those features encourage households to make projections concerning both income and outcome. Due to specifity of particular groups of products and services their costs are often immerse comparing to single (mostly monthly) income. For this reason saving is frequently the only way to obtain those products and services.

In the past the value of forthcoming outcomes were well known in advance or at least predictable. It is still a case for many products and services. But as the time horizon lengthens and value of required/desired savings increases and reaching/keeping particular value of savings is becoming a challenge. As it is a transfer the present value to the future and the value of money changes in time, there is a need to find assets which allow to keep the worth of savings unchanged.

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In the past the insurance industry was not reluctant to offer investment products with guaranties. Steadily growing capital market in 80s and 90s encouraged many life insurers to lengthen their liability exposure. However the level of guaranteed profit from capital life insurance products (investment risk held by insurer) was decreasing with the time due to macroeconomic conditions. But as investing became a profitable business in many countries unit-link products (investment risk held mainly by a policy holder) were offered instead of capital life insurance. This tendency was backed by tax incentives dedicated to pension

programmes. In case of unit link product a guarantee on amount of nominal premium were implemented.

Due to Solvency II rules the guarantee of profit in capital life insurance products has been already reduced significantly and the portfolio of unit-link product is becoming more and more conservative. The question arises if insurers are able to provide the long-term guarantee higher than inflation or at least nominal value of premiums in the present circumstances. Keeping the real value of pension savings is becoming a challenge. Now a day it is mostly done via financial market but the offer for single household for micro enterprises is frequently very different from institutional investor.

Supply side perspective

The main packages of measures that address this issue more or less directly were introduced by Omnibus II. Extrapolation, matching adjustment and volatility adjustment could relax capital requirements but it is questionable to what extent they cover the issue and soften deficiencies in other areas.

The main problem seem to be lack of adequate investment instruments to back the liabilities with well recognized level of risk, The problem with infrastructure bonds, mentioned in the context of long-term investment, was mainly due to limitation in information. EIOPA research reveals significant problem with data and volume of such instruments.

The other problem seem to be the measurement of the risk which seem to concentrate too much on volatility as such and not for example meeting long-term objectives, that could lead to the inadequate calibration concerning the riskiness of investment. The main concern is to what extent volatility is meaningful from the perspective of final outcome.

Adjustability as a feature of investment life insurance products is now-a-day welcomed more than ever. At the same time present and future guaranties should meet more scenario based analysis to foreseen possible future consequences. The results of such evaluations ought to be placed in ORSA.

Between fixed long-term guarantees and variable outcomes

There is a range of different products between fixed long-term guarantee and variable outcome. They have very different mechanism and so do results. As the last financial crisis showed the design of some of those arrangements has turned out to be inadequate and failed to provide the targeted benefits. Other types of guarantees became unavailable just right at the moment

when they were most needed. All these issues underline the importance of particular mechanisms within each product, which could change substantially the final effect.

From above mentioned range of different products, free of them seem to be:

- return smoothing mechanism,
- semi-guarantee linked to benchmark,
- targeted aim life insurance or pension program.

The mechanism of smoothing capital market returns is used in (with-profit or participation) life insurance and pension plan and allows for a kind of intergenerational risk transfer. If the total of assets of the life insurance or pension fund are not fully allocated to individual (saving) accounts then part of the assets could be allocated to a common (collective) reserve (so called unallocated fund). In the time of high capital returns adequate part of profits is used to build the collective reserve while poor capital market returns (also losses) are compensated from the collective reserve. The side effect is intergenerational distributions among cohorts in case of life-cycle approach. There is a natural limitation of return smoothing mechanism, that applies only to accumulation phase.

Guarantee could be linked to a benchmark, which should mirror the investment strategy. If the benchmark is well designed, with acknowledged risk profile and appropriate rebalancing, it is an interesting instrument for retail investor. The guarantee on the level of benchmark or slightly lower level could be an interesting alternative to products without any guarantee. However the process of approval of the benchmark and condition of potential change are quite significant. Not mentioning the costs which could limit the positive effect of successful investment strategy.

Targeted aim life insurance or pension programme has fixed contributions or a fixed range of contribution, that should provide targeted defined benefit level. In case of turmoil precise policy prescribes the way varying benefits based on affordability, with known reserve levels and a pre-determined order of benefit adjustments. The key difference between targeted aim life insurance or pension programme above mentioned mechanisms is the fact that it includes pay-out phase with potential indexation. For consumer the critical is level of adjustment and time perspective.

Due to the flexibility and complexity of above mentioned products for end users the role and responsibility of supervisors increased significantly and are becoming really challenging.[1]

The outcome of alternative for GSP with fixed long-term guarantees and variable outcomes flexible guaranties under Solvency II regime

It is unlikely to foreseen all consequences of above mentioned products under Solvency II. Generally the outcome should be less severe concerning capital requirements comparing to fix guaranties, but it depends also on detailed characteristic of these products that could differ significantly.

In general mechanisms such as partial/temporary guaranties and targeted outcome should:

- offer an acceptable level of risk for policyholders and insurers
- provide incentives for long-term cash flow
- increase opportunity for developing infrastructure investment market

There is increasing number of researches that try to take into account Solvency II framework and reduce prohibitive capital requirements.[2] However due to new circumstances, mainly macroeconomic situation, utility of insurance companies within investment activity should be analysed to avoid inefficient "crowd" at the European investment market and find the best role for insurance industry within Capital Market Union.

Flexible guarantee and personal finance

Financial planning is considered to be important element of personal finance due to increasing complexity of financial market and overall environment of decision making process. Flexible guarantee increases even further volatility of future income comparing to relatively stable desired/preferential level of outcome. Potential impact on household could be huge due to increasing number of conditional guarantee (based on macroeconomic and demographic variables) within public pension schemes. From this perspective it is important to increase awareness of those changes among consumers. As the usage of guarantee is becoming and will

[1] D. Stańko, (2015) The concept of Target Retirement Income: supervisory challenges, IOPS Working Papers on Effective Pensions Supervision, No.25 December.

[2] A. Reuß, J. Ruß, J. Wieland, (2015) Participating Life Insurance Contracts under Risk Based Solvency Frameworks: How to increase Capital Efficiency by Product Design. Innovations in Quantitative Risk Management, Springer Proceedings in Mathematics & Statistics, Vol. 99, p. 185-208.

remain costly it is important to optimize its use, also the flexible version.

Thanks to initiative of the European Commission and the European Insurance and Occupational Pension Authorities the behavioural research on perception of different format of information has been conducted. However further research is needed in this area, especially concerning:

- importance and perception of guarantees for consumers (subjective approach)
- costs vs. outcomes of guarantee (objective approach)
- optimal set and scope of variables

Affordability of guarantee is not as important as its deliverability. That is why the role of supervisor is very significant. Also the role of insurance guarantee schemes should be discussed concerning possibility and practicality (costs for all consumers) of enhanced consumer protection.