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**Avoiding Pitfalls In Retirement:**  
**A Report on Defined Contribution Pensions**

*Prepared on behalf of the Pensions Committee and the Investment and  
Financial Risk Committee of the Groupe Consultatif*

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## **Key Message**

**Improving longevity, volatile investment markets and inflation uncertainty can present significant risks for individuals retiring from a DC scheme. These risks can be mitigated by careful scheme design and product choice. Policymakers can help raise awareness of the risks and help members achieve maximum benefits by removing infrastructure barriers to efficient design and product pricing.**

## **Introduction**

Pension schemes, whether public or private sector or whether defined benefit (DB) or defined contribution (DC), involve a variety of financial risks. It is crucial to a scheme's success in meeting its objectives that stakeholders understand these risks and that scheme design allows for the risks to reside with parties that can best afford to bear them and so that an efficient balance between costs and benefits are achieved. This report focuses on the risks associated with the decumulation phase for DC schemes (when contributions have ceased and benefits are drawn). At one extreme, the members can individually be left to bear all the risks. For most members, some of these risks, particularly longevity risk, can have potentially serious adverse consequences in later life. This report will suggest ways in which members' risks can be mitigated to give them more financial security during retirement.

## **Main Risks in the Decumulation Period**

The main risks are associated with investment performance, expected lifetime in retirement and the inflation experience during that period. While these risks can be considered in isolation, there are some connections between them. For example, the longer the expected lifetime, the more inflation will erode the purchasing power of benefits fixed in money terms by the end of the decumulation period.

Over the combined accumulation and decumulation phases, scheme designers and members have to strike a balance between contributions, risk and benefits. Higher contributions will make it easier to deliver the required benefits with lower risk but this involves sacrificing more current income. Lower contributions can be applied to a more risky investment strategy which is expected to deliver higher returns and so compensate for the lower contributions. If the expected returns are realised this will deliver the same benefits as with lower contributions but in adverse circumstances only support lower benefits. Low contributions and a low risk strategy effectively guarantee low benefits. Ideally, scheme designers and members should start from the desired level of benefits and work back to find a suitable compromise between contributions and risk. Scheme design and informed planning are critical to the ultimate delivery of benefits which meet scheme members' aspirations.

Table 1: Risks, Reasons and Mitigation

<b>Risk</b>	<b>Possible Reasons</b>	<b>Mitigation Measures</b>
Accumulated fund at retirement is insufficient to secure the anticipated benefits	Trend investment returns over the accumulation phase less than anticipated	Build in realistic assumptions at the outset Review contribution rate at infrequent intervals
	Asset prices are temporarily depressed at the point of transition from accumulation to decumulation	Phase asset strategy towards benefit-matching assets in later phase of accumulation
	Ratio of expected decumulation years to accumulation years has increased because of improved longevity expectation	Re-plan retirement to start at a later age (see below)
Member lives longer than assumed, risking extinguishing the fund before death	Continued improvement in population longevity Member lives beyond the expected age at death	Annuitise at least part of the fund
Inflation during decumulation higher than assumed, risking eroding the purchasing power of benefits	Global and country specific economic trends influenced by factors such as monetary policy and demographics	Purchase Inflation-linked or investment-linked annuity (see products section below)

Increasing life expectancy has been one of the key factors in raising the cost of pension provision in recent years. While it has been rising for many decades due to greater affluence, healthier lifestyles and medical advances, the trend has been accelerating in recent years and projections are for improvements to continue well into the future. In general, pension scheme designers have been slow to reflect these changes in scheme structures. People can start to save and plan for their retirement at a relatively young age and historically the retirement age has been assumed to be the same as for the current generation of retirees. Recently governments have started to increase the age at which state pension benefits will be paid and economic necessity is forcing a similar change in the private sector.

The change towards later retirement, however, is not happening quickly enough to retain equivalence between the accumulation and decumulation periods. For example, in 1985 a person aged 25 planning to retire at age 65 (male) or 60 (female) could expect an average decumulation period of 13.2 years (male) or 21.4 (female) based on UK pensioner mortality tables commonly in use at that time. Today, using the latest tables, these periods have expanded to 16.9 and 24.2 years respectively. This means that if the planned retirement age has not been changed, there will have been a significant change

in the ratio of the expected average decumulation period to the accumulation period from 0.33 to 0.42 (male) and 0.61 to 0.69 (female). To restore the ratio would require a rise in the planned retirement age to 68 (male) and 62 (female). The extra years of contributions and investment returns should be sufficient to enable the same benefit level (expressed as a percentage of earnings at retirement) to be paid as had been envisaged for the earlier retirement age assuming the same rates of investment returns prevail. On present trends, the retirement age would have to rise by approximately one year every 10 years for males and slightly more slowly for females in order to retain equivalence.

Most people are not wealthy enough to self-insure the risk that they may outlive their assets given the improvement in life expectancy that we have already seen. Therefore it is important that DC pension arrangements allow members the option of having longevity protection as is already the case for DB pension schemes.

### Products to Mitigate DC Member Risks

An annuity is the traditional product used to transfer longevity and possibly investment risk from the member to the product provider. These come in a variety of forms and Table 2 below lists the most common of them, summarises their features and outlines the risk transferred from member to provider. In all cases the member pays a lump sum (the accumulated assets in the DC pension fund) to the provider in return for a stream of income during the member's remaining lifetime.

Table 2: Current Products

<b>Type of annuity</b>	<b>Key features</b>	<b>Risk transferred to provider</b>
1. Level Annuity	Fixed level monthly payment until death with probably a guarantee that payments will continue for a minimum period	All longevity and investment risk Inflation risk retained by member
2. Inflation-linked Annuity	Monthly payment indexed to a consumer price index, with a similar guarantee to 1 Will typically provide the lowest initial income	All longevity, investment and inflation risk
3. 'With-Profits' Annuity	Guaranteed fixed monthly payment set at a relatively low level initially but expected to increase periodically if the provider earns surpluses on the fund	All longevity and investment risk Some of the inflation risk (to the extent that the assets held in the 'with profits' fund provide inflation protection)

4. Investment-linked Annuity	Monthly payments are directly linked to the performance of an investment fund so there is no guaranteed minimum and the payments will fluctuate	Normally all longevity risk, but in some products, this is shared between the member and the provider. Members retain the investment and inflation risk but these will be determined by the characteristics of the fund they choose – those who can afford to accept a higher level of risk can choose a fund which invests in riskier assets such as equities that will deliver a relatively low income initially but may be expected in the long term to maintain or increase the purchasing power of that income
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There is a continued search for new products that deal with the opportunities and risks in retirement. For most people it would be desirable that a product has the following features:

- protection against outliving pension capital
- ability to capture higher investment returns during (part of) the decumulation phase
- potential for increasing payments
- stabilization of income payments
- downside protection, for example a guaranteed minimum retirement income
- a “money back” feature such as, for example, a guaranteed 20 year payment period
- co-ordination between the different phases such as the transition from accumulation to decumulation and at the end of a guaranteed payment period.

Annuities provide an income for life and protect from the longevity risk of outliving your money. The risk of volatile investment markets may be mitigated by the features in the fourth, fifth and last bullet points mentioned above. Inflation uncertainty may be mitigated by the feature mentioned in the third bullet point investing a high proportion of the assets in equities and if possible inflation-linked bonds. The risk of dying too soon may be addressed by a "money-back" feature. Annuities might be seen as unfair if the amount received in income payments could be significantly less than the capital invested at retirement.

## **How Policymakers can Help DC Members**

Product providers set prices to reflect their underwriting risks and their profit margin. The more certainty there is about the nature and quantum of the risks the lower can be the product prices which will result in higher benefits for members per unit of accumulated savings. At present, it is possible that some infrastructure barriers raise the risks and therefore reduce the member benefits.

For example, longevity risk can be quantified more precisely if there is good quality historical experience data on which to base future expectations. If there are countries where there is a lack of such data on annuitant mortality, product prices may be higher than they might otherwise be and consequently members' benefits may be lower. If investigations prove this to be the case then policymakers may be able to assist in increasing benefits by ensuring that data quality is improved.

Inflation-linked bonds are a useful investment for providers wishing to offer inflation protection products to the pensions market. This type of bond is now issued by several countries in the EU but were they to be more widely available it would be easier in those countries where they are not currently available to create products to hedge the inflation risk for retiring members. Alternatively, consideration could be given to EU-wide inflation risk transfer arrangements.

Surveys suggest that DC scheme members do not fully understand the risks in retirement. If they are to enjoy the maximum benefits commensurate with the risks that they are prepared to accept, it is important that they are better informed about these risks and the characteristics of different products. Without this, they risk making inappropriate irreversible decisions which they may later regret.

Policymakers have a role to play in eliminating infrastructure barriers, where they exist, to providing cost effective and efficient design of retirement products and in ensuring that the awareness about the risks and products available to members is raised to a satisfactory level.