

Optimized Decumulation Strategy

Align Portfolio Strategy with Retirement Goals

Laurent Caudamine

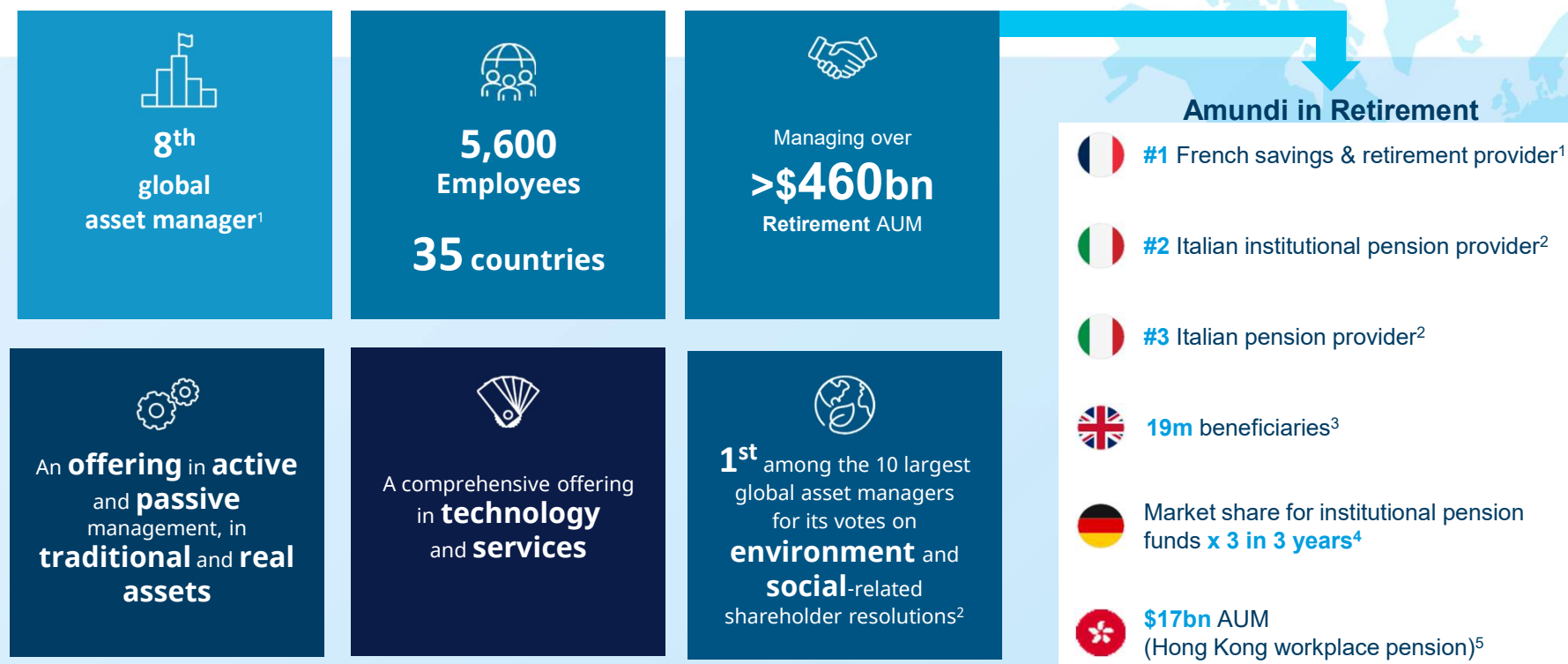
Portfolio Manager, Retirement solutions – Amundi

19/08/2026

2026 Asian Actuarial Conference



Amundi, 1st European asset manager



Amundi data as at 30/09/2025.

1. Source: IPE "Top 500 Asset Managers" published in June 2025, based on assets under management as at 31/12/2024.

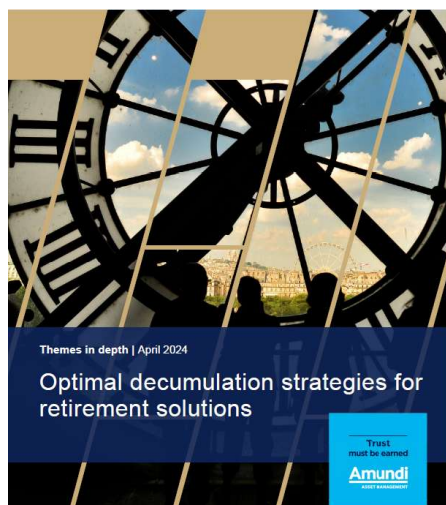
2. UK organisation ShareAction's Voting Matters 2024 report.

2 | Asian Actuarial Conference 2026 - Optimized Decumulation Strategy

Amundi research on retirement

Several papers on retirement and decumulation solutions published

Optimal decumulation strategies for retirement solutions – 04/2024



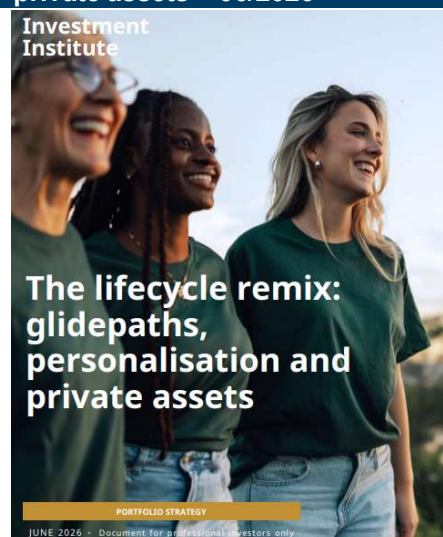
Themes in depth | April 2024

Optimal decumulation strategies for retirement solutions



research-center.amundi.com

The lifecycle remix: glidepaths, personalisation and private assets – 06/2026



PORTFOLIO STRATEGY
JUNE 2026 · Document for professional investors only

Pension trends in Asia: Beyond Accumulation – 07/2026



Sources: 1) OECD, 2025. 2) WEF, 2026. 3) WHO, 2026. 4) Singapore Management University, 2026

Optimized Decumulation Strategy

1. **Decumulation: key challenges**
2. **Capital income solution**
3. **Introducing annuities into the capital income solution**

1. Decumulation: key challenges

Demographic trends and retirement needs

Changing demography and trends

Ageing make decumulation products an emerging priority

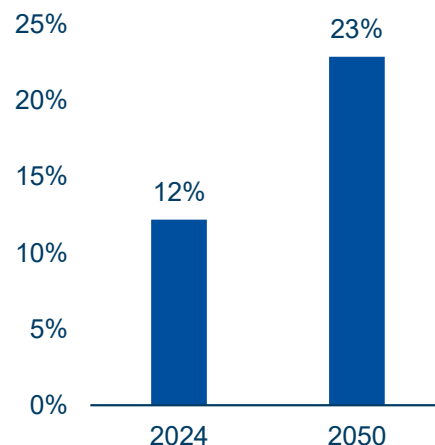
Global life expectancy is increasing¹

At 65, **life expectancy** stand at 20 years in 2024...

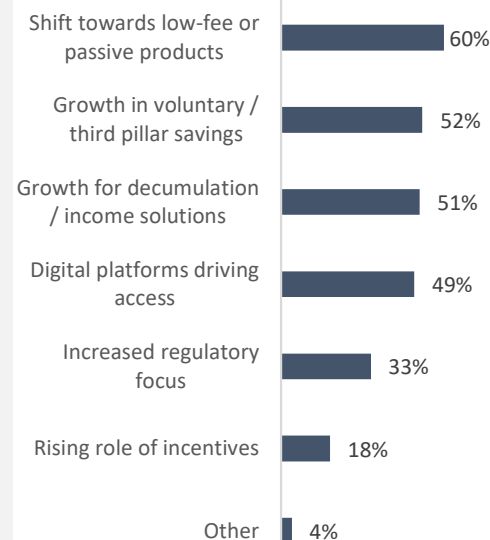
and is expected to **increase to 24 years by 2065**

Focus on South-East Asia

Proportion of population aged 60 and over³



Trends shaping Asian Retirement markets⁴



How to convert accumulated capital into a steady income stream during retirement ? That's the **Decumulation Challenge**

Sources: 1) OECD, 2025. Data as of 2024 2) WEF, 2026. 3) WHO, 2026. 4) Amundi Pension Funds Letter #27 | July 2026

Retirement landscapes differ widely across markets

Hence, brings custom solutions

Pension Ecosystem

Countries

Diversity of pension systems

Regulatory environnement

Various replacement ratios

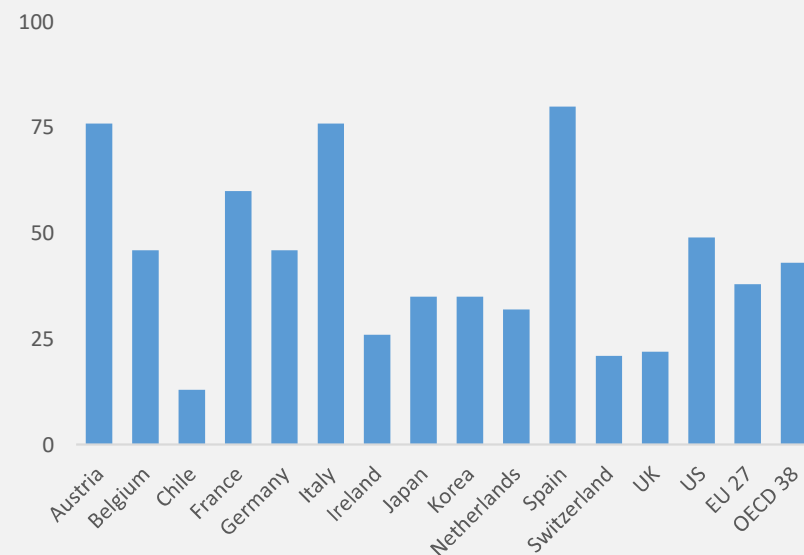
Pension provider

State

Workplace pension provider

Distributor –
Voluntary pension provider

Retirement income in % of earnings pre-retirement

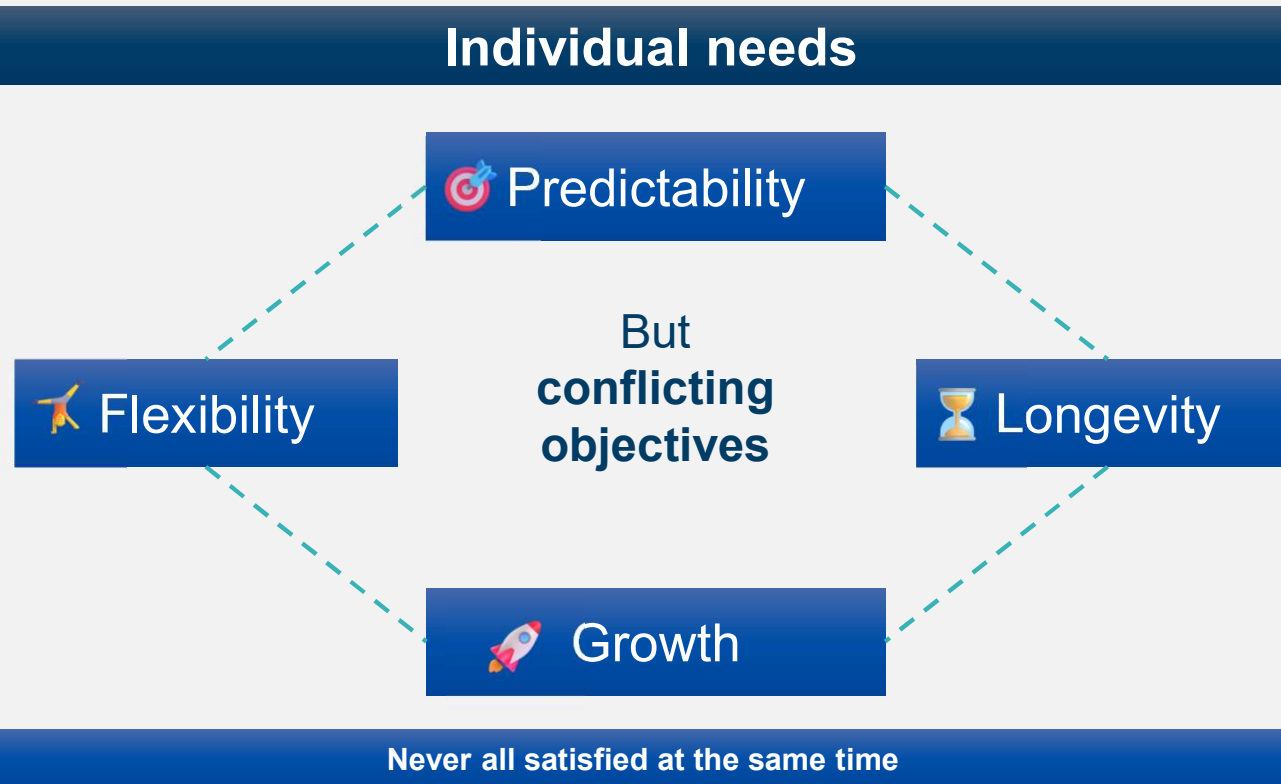


Source: OECD (2023), "Pensions at a Glance 2023: OECD and G20 Indicators", OECD Publishing, Paris, Table 4.2. Gross pension replacement rates from mandatory public schemes (%) for average earners.

For illustrative purposes only. Source: Amundi

While retirement needs are very similar

Globally, individuals share the same 4 needs



Traditional decumulation solutions don't fit for most people

A single product would satisfy two objectives, or poorly the 4 objectives

Income strategy	Capital income		Guaranteed lifetime income
Product	Growth fund	Fixed income fund	Annuity
KPIs			
Our optimized solutions	1 Capital income solution	2 Capital & annuity income	

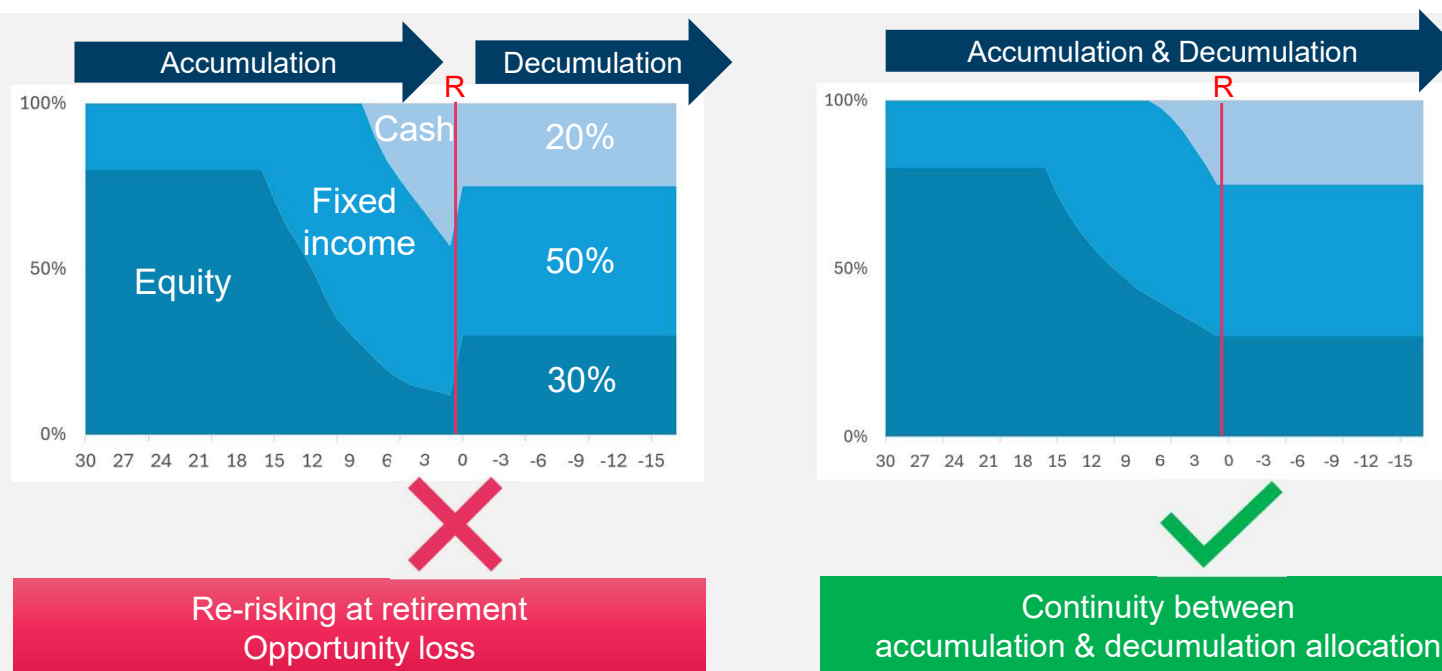
For illustrative purposes only. Source: Amundi

2. Capital income solution

How to allocate the capital to match the consumption needs

1st Step: chose the right glidepath

Glidepath allocation must fit to the decumulation solution chosen

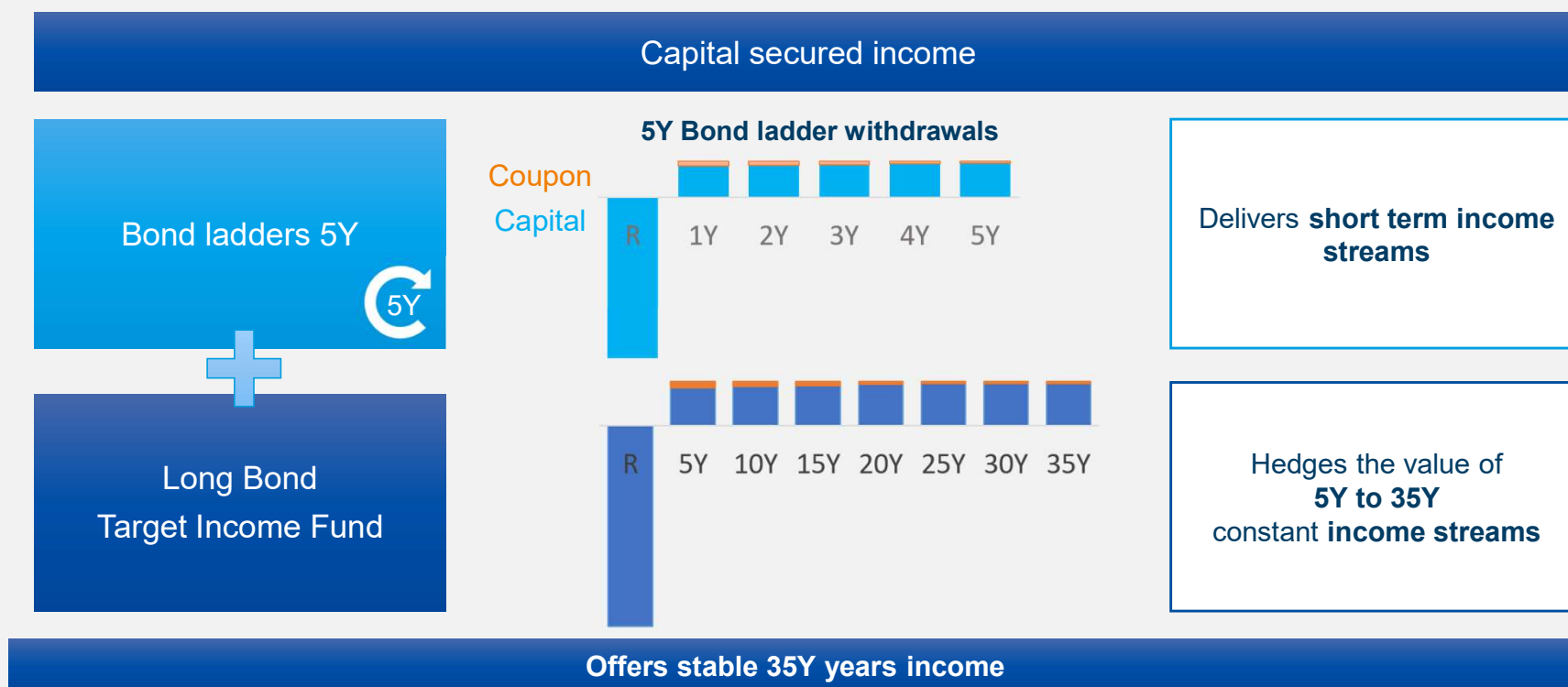


The individual consumption choices
must be chosen well ahead of the retirement date

For illustrative purposes only. Source: Amundi

2nd Step: Building a bond solution to secured an income

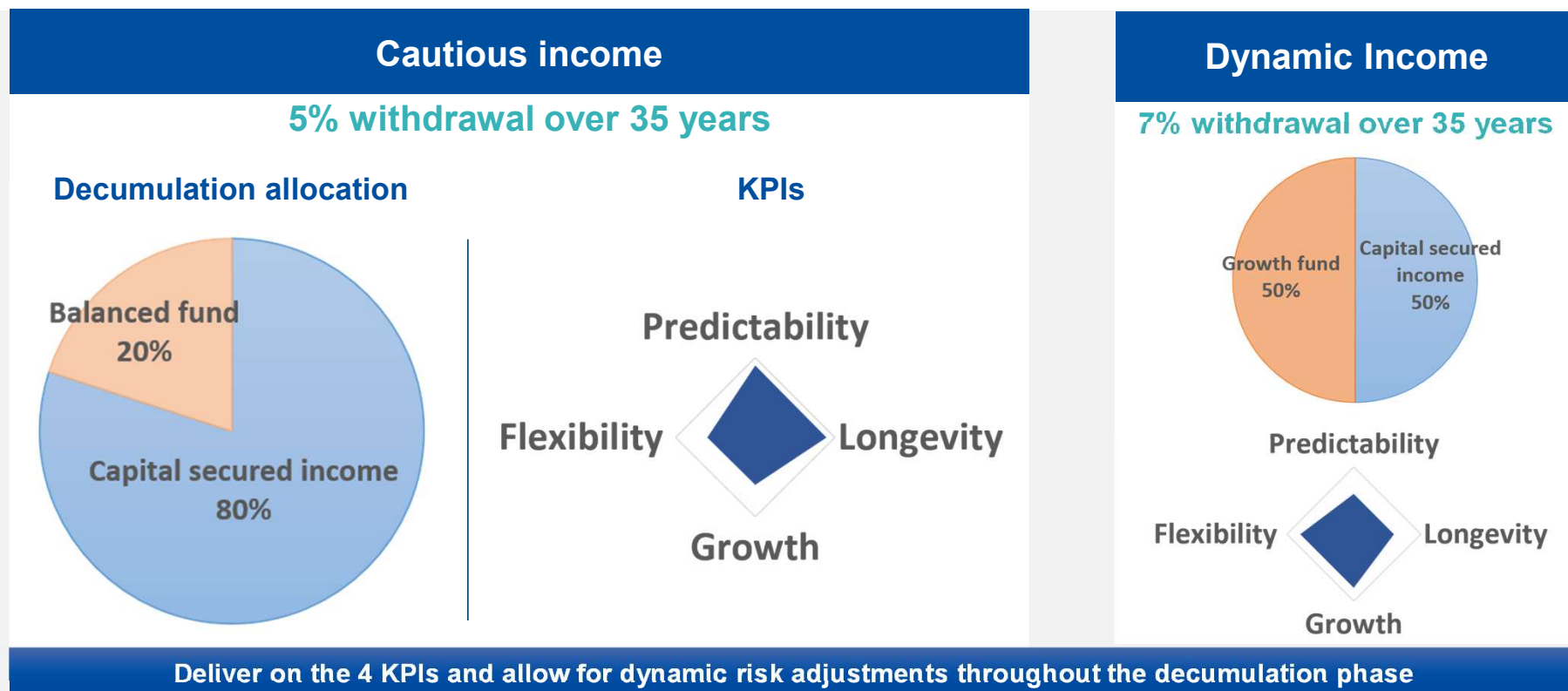
A solution that combines of a series of bond ladders and long duration fund over 35Y after retirement



For illustrative purposes only. Source: Amundi

3rd Step: Allocate the assets given your consumption level

Targeting an annual income from the initial capital and maximize the 4 KPIs – GBP returns

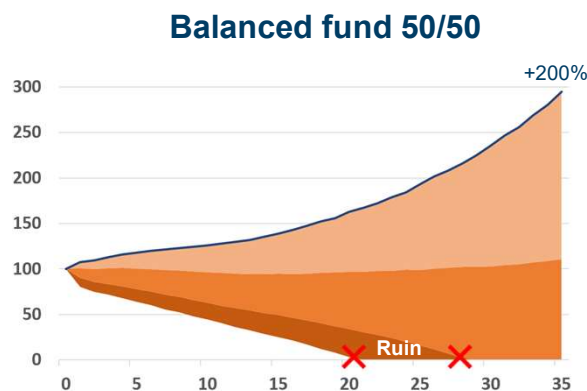
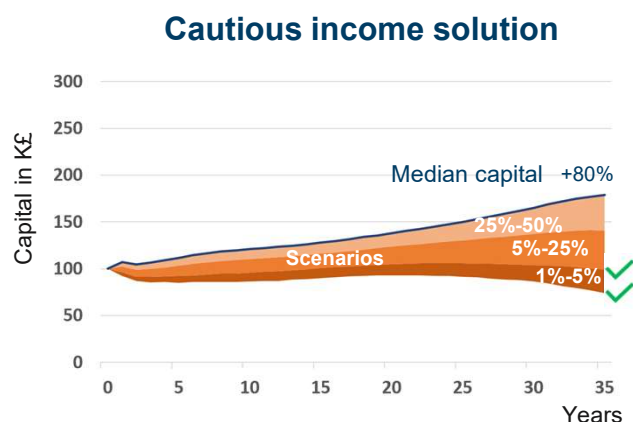


For illustrative purposes only. Source: Amundi. Returns are simulated through our inhouse CASM model in GBP

Simulation of the cautious income VS traditional balanced fund

Simulations¹ based on £100,000 initial investment | 35-year horizon post retirement – GBP Returns

Median and worst scenarios capital analysis with 5% annual withdrawals



Capital & Ruin comparison

	Cautious Income	Balanced fund
Median capital at 35Y (£)	180,000	300,000
Probability of ruin over	25Y	0%
	30Y	0%
	35Y	0%
		2%
		6%
		10%

Cautious income is suitable for capital growth and longevity

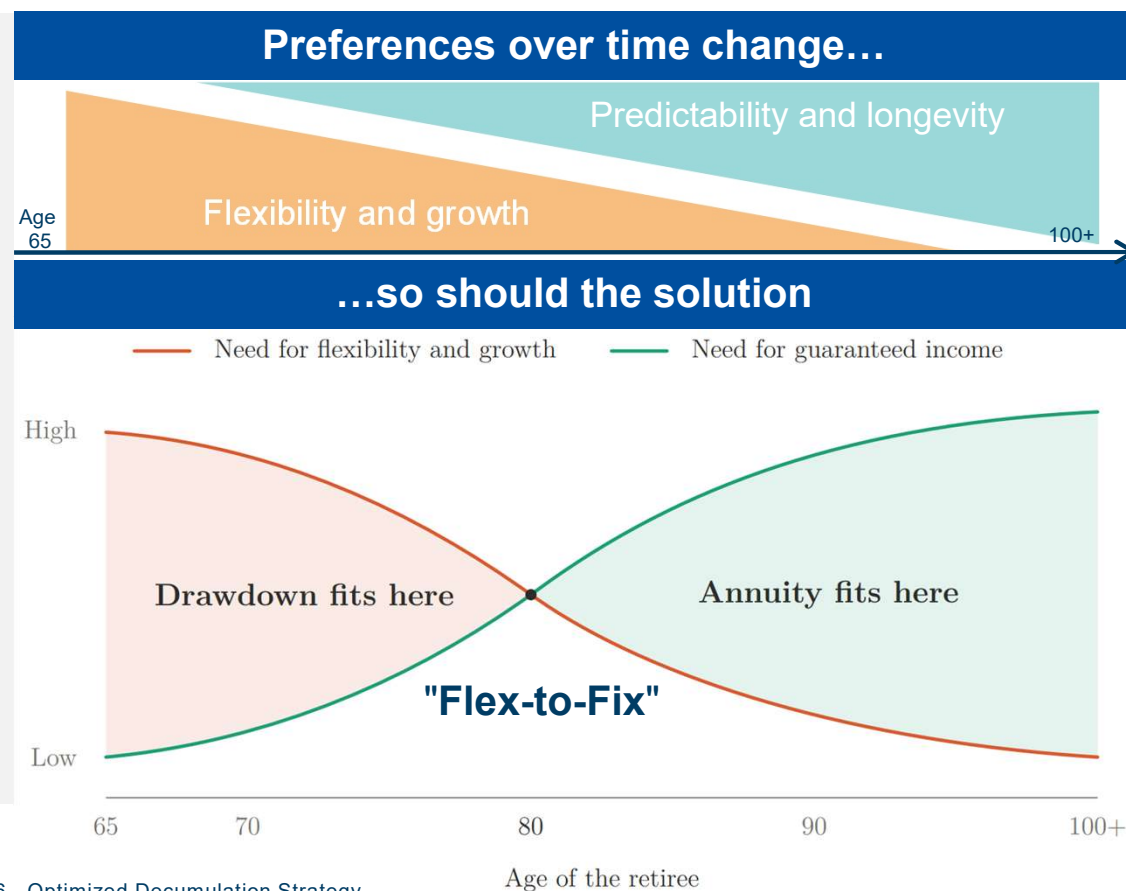
¹ Source: Amundi, for illustrative purposes only. Based on 10,000 CASM simulations as of 31/12/2025, The scenarios presented are an estimate of future performance based on evidence from the past on how the value of this investment and/or current market conditions and are not an exact indicator. What you will get will vary depending on how the market performs and how long you keep the investment /product. Figures are in GBP gross of fees

3. Introducing annuities

How to benefit from a guaranteed lifetime income

Mixing capital and annuitization – Flex-to-Fix

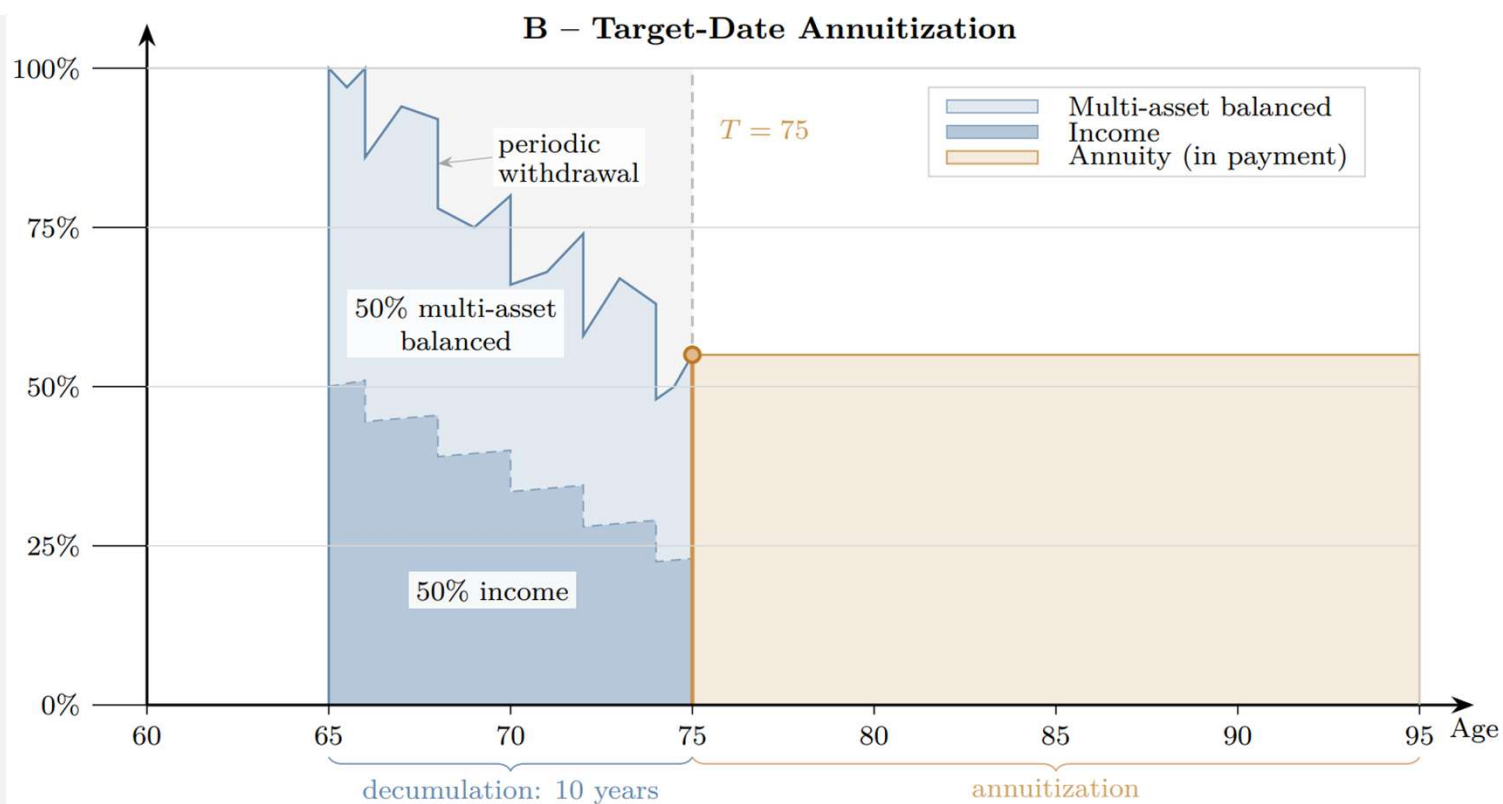
Take the best of both worlds for changing preferences



Source: Amundi institute

Target-Date Annuitization

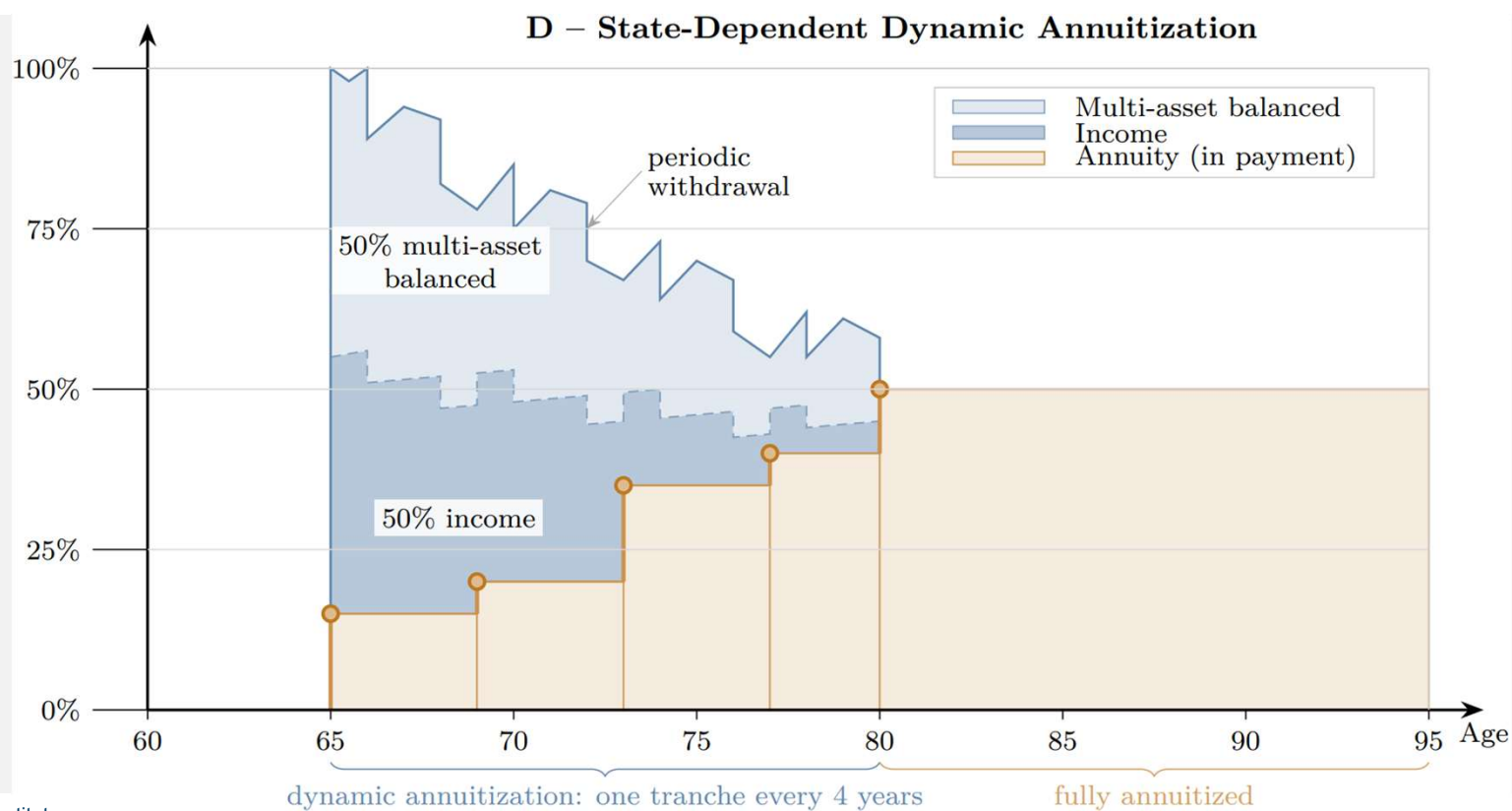
Switching from a derisked glidepath allocation to annuity at 75 Yo for example



Source: Amundi institute

Smart annuitization

Annuitisation strategy becomes dynamic, depending on age, market level, portfolio health and rates



Source: Amundi institute

Conclusion

Conclusion

Decumulation is a multi choice strategy and must be specifically designed

Decumulation should be designed as an extension of the accumulation phase

Traditional solutions don't satisfy the 4 objectives

Multi choice and dynamic asset allocation approach gives best probability of success

Amundi your trusted partner to build customized retirement solutions



1. Retirement Journey
Design Expertise



2. Model Portfolio &
Wrapping Solutions



3. Technology
Solutions



4. Marketing and
Training Solutions

CASM sources & assumptions

The medium- to long-term return forecast report is intended to guide investor expectations. The ten-year time-horizon is deemed to be appropriate for long-term trend factors to reasonably play out, and therefore for market returns to reflect this information accurately.

Cascade Asset Simulation Model (CASM) is a platform developed by Amundi in collaboration with Cambridge University. CASM combines our short-term macro-financial outlook with medium-term dynamics, extending into a long-term equilibrium. It aims to simulate forward-looking returns for different asset classes over multiple horizons.

CASM generates asset price scenarios and the underlying economic and financial factors that determine Amundi's expected returns over preferred time horizons. It is a valuable tool for strategic asset allocation and asset-liability management analysis. We estimate model parameters regularly to incorporate new market data and updates to our short-term outlook. The calibration process, which ensures that the models reflect our view of economic and financial market trends, is a collaborative process between several teams at Amundi.

We reach a consensus for the short- to medium-term outlooks for macro and financial variables for each region under consideration (the United States, Eurozone Core and Periphery, UK, Japan, China, India and EM). The models are calibrated to align with these outlooks and long-run estimates. At each stage of the process, results are analysed against stylised facts and checked for consistency.

Asset class returns are generated using Monte Carlo simulation. The stochastic generation of risk factors and price scenarios allows us to analyse a wide range of possible outcomes and check the uncertainty surrounding them. We can adjust the starting assumptions and observe the impact on possible future asset prices. The CASM platform covers macro and financial variables for major regions, namely the US, the United Kingdom, the Eurozone, Japan, China, India and Emerging Markets as an aggregate.

The CASM architecture can be described along two dimensions. The first dimension is a 'cascade' of models: asset and liability price models are composed of market risk factor models, which in turn are built from macroeconomic models. Initially proposed by Wilkie (1984) and further developed by Dempster et al. (2009), this cascade structure underpins the platform's ability to model linear and non-linear relationships between risk factors, asset prices, and financial instruments.

The second dimension represents the future evolution of the 'cascade' structure. This formulation allows us to simulate asset price scenarios that are consistent with the underlying risk factor models.

In the short-term, CASM blends econometric models and the quantitative short-term outlooks provided by Amundi analysts. In the long-term, we assume that market variables move towards dynamic long-term levels. The short-term projections evolve into this long-run state through the medium-term dynamic, which are driven by business cycle variables.

CASM sources & assumptions

Sources of CMA: Amundi Asset Management CASM Model, Amundi Asset Management Quant Solutions and Amundi Investment Institute Teams. Macro figures as of the last release. The starting simulation date is **30 June 2025**. Equity returns based on MSCI indices. Reference durations are average figures. Returns on credit assets are comprehensive of default losses. If not otherwise specified, expected returns are geometric annualised average total returns at the specific horizon. EM debt HC, EM-GBI, global infrastructure and hedge funds are in USD, all other indices are in local currency. Returns are nominal and gross of fees, except private equity which are net of single manager fees. Real estate refers to all property unlevered real estate. Hedge fund returns represent the expectations for a diversified aggregate of Funds of Hedged Funds are gross of Fund of Funds fees. The expected returns consider the market beta and the alternative assets risk premium. The alpha return component generated by portfolio management, strategy selection or specific value creation programs, which can be significant above all for real and alternative assets, is not considered in any form. The arithmetic average returns are derived using the price generated by our simulation engine. By definition, the arithmetic mean is always greater than or equal to the geometric mean. In particular, higher volatility of returns and higher frequency of returns and/or a longer time horizon will increase the difference between the two measures. Simulated volatilities are calculated on simulated prices over a 10-year horizon. Simulated volatility for alternative assets is derived from unsmoothed return series. Hence, this measure of volatility will be different from the one obtained from realised IRR. Expected returns are calculated using Amundi central scenario assumptions, which include climate transition. Forecast and fair values up to a 3-year horizon are provided by the Amundi Investment Institute Research team (macro, yields, spread and equity). Forecasts for annualised returns are based upon estimates and reflect subjective judgments and assumptions. These results were achieved by means of a mathematical formula and do not reflect the effect of unforeseen economic and market factors on decision-making. The forecast returns are not necessarily indicative of future performance.

Data sources: Bloomberg, Cambridge Associates, Global Financial Data. Edhec Infra, MSCI and MSCI Burgiss.

CASM sources & assumptions

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