

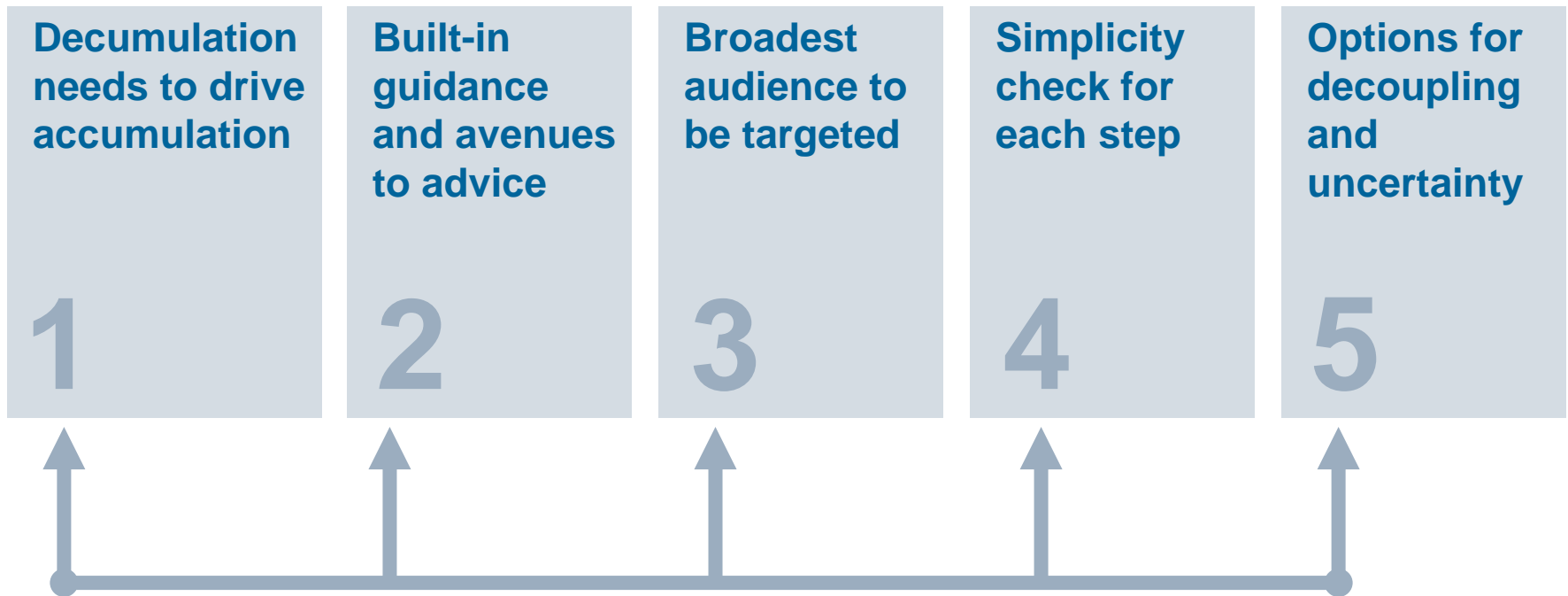
The 2nd European Colloquia

29 - 30 November 2007, Vienna

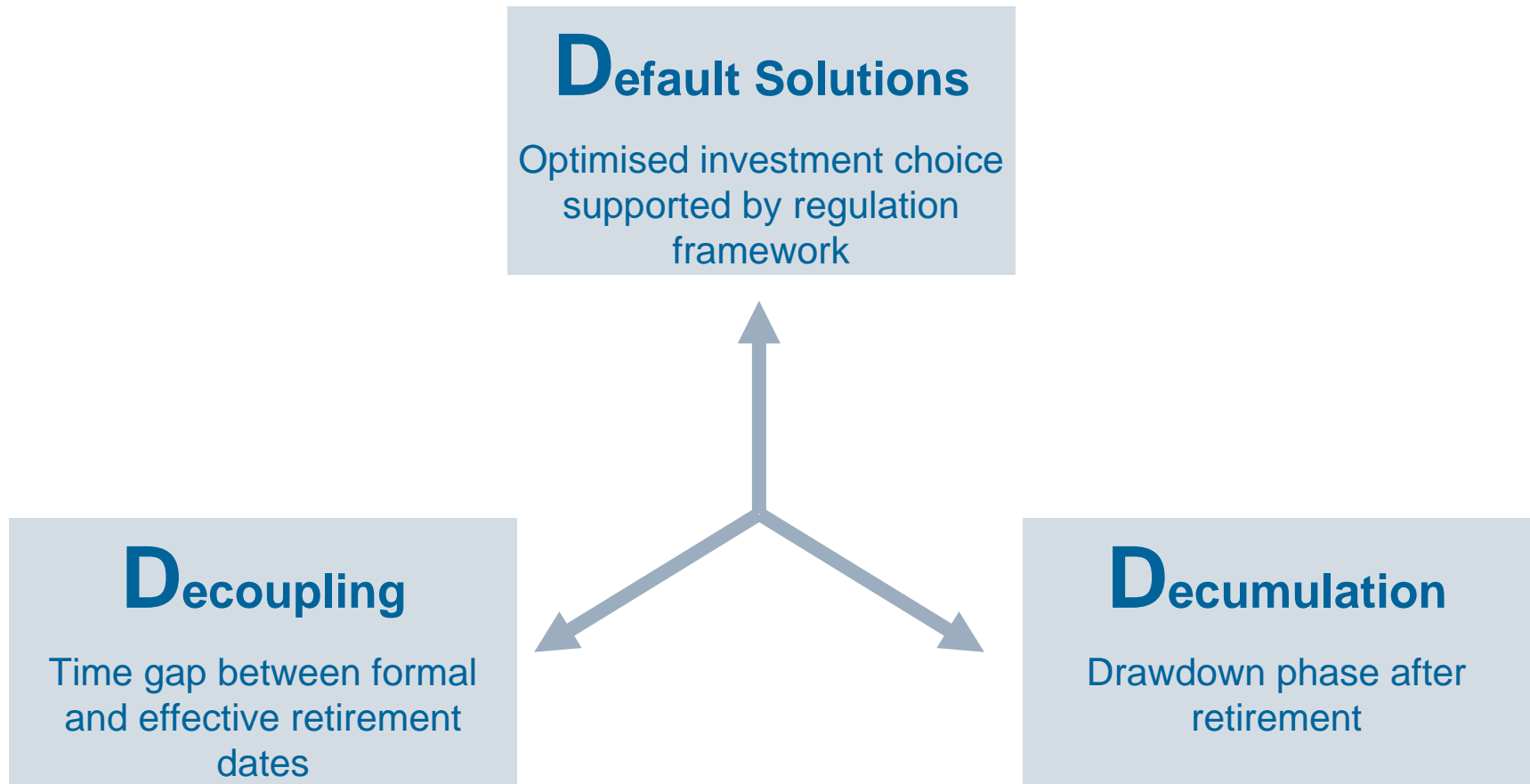


Key Factors for Long-Term Solutions

The Five-Prong Approach to an Accumulation/Decumulation Product



Product Development on Long Term Solutions: The 3D Contextual Framework



Key Steps to Provide Multiple Default Solution

Know your clients

- Analyse **different factors** that drive individual choices
- Need for efficient **client mapping by risk tolerance**
- Reduce complexity by **building clusters of clients** to identify common patterns

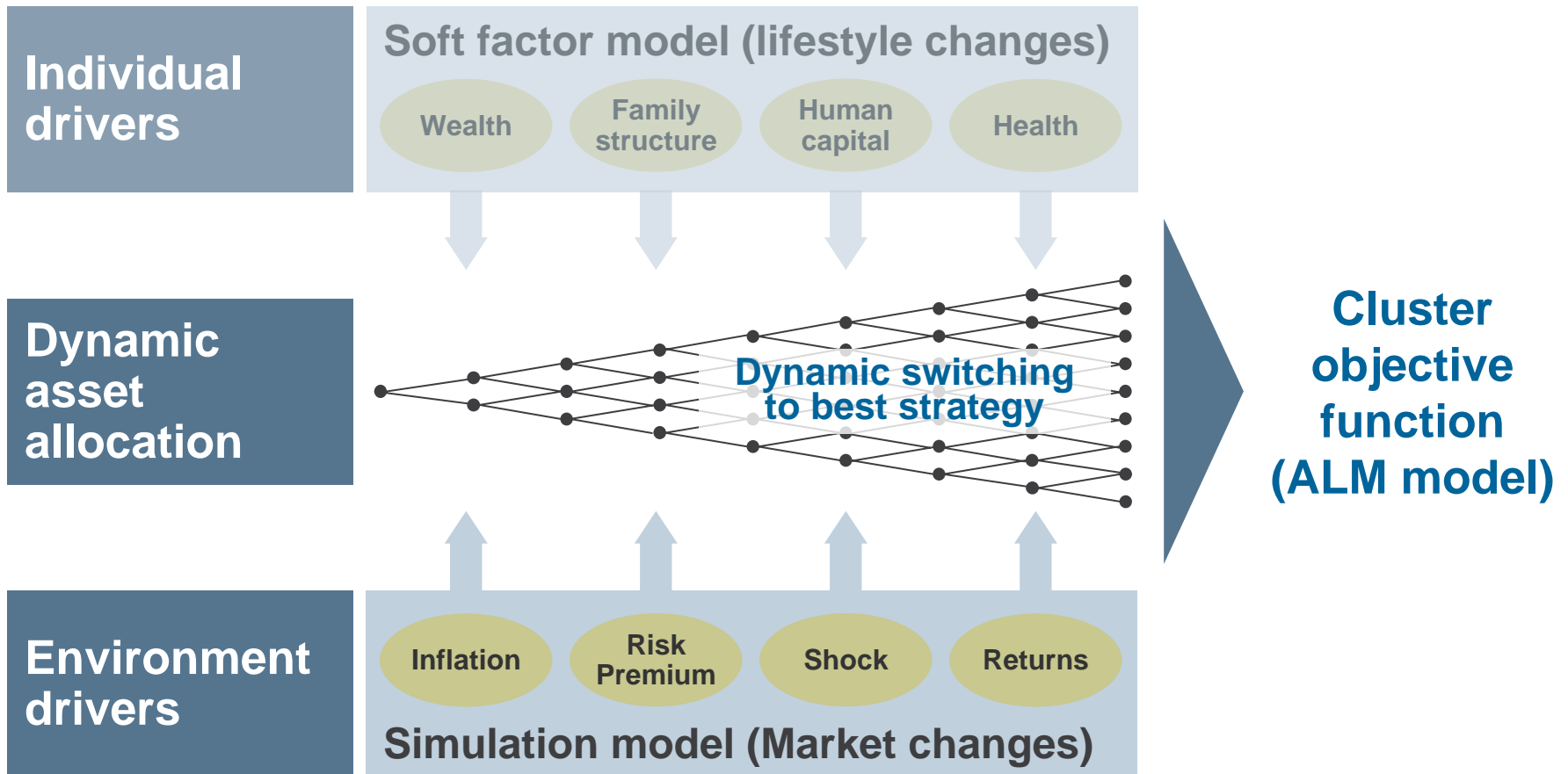
Understand the environment

- **Analyse trends** through statistical and fundamental tools
- **Identify more probable & extreme scenarios**
- Build sophisticated models to **simulate the impact of alternative scenarios**

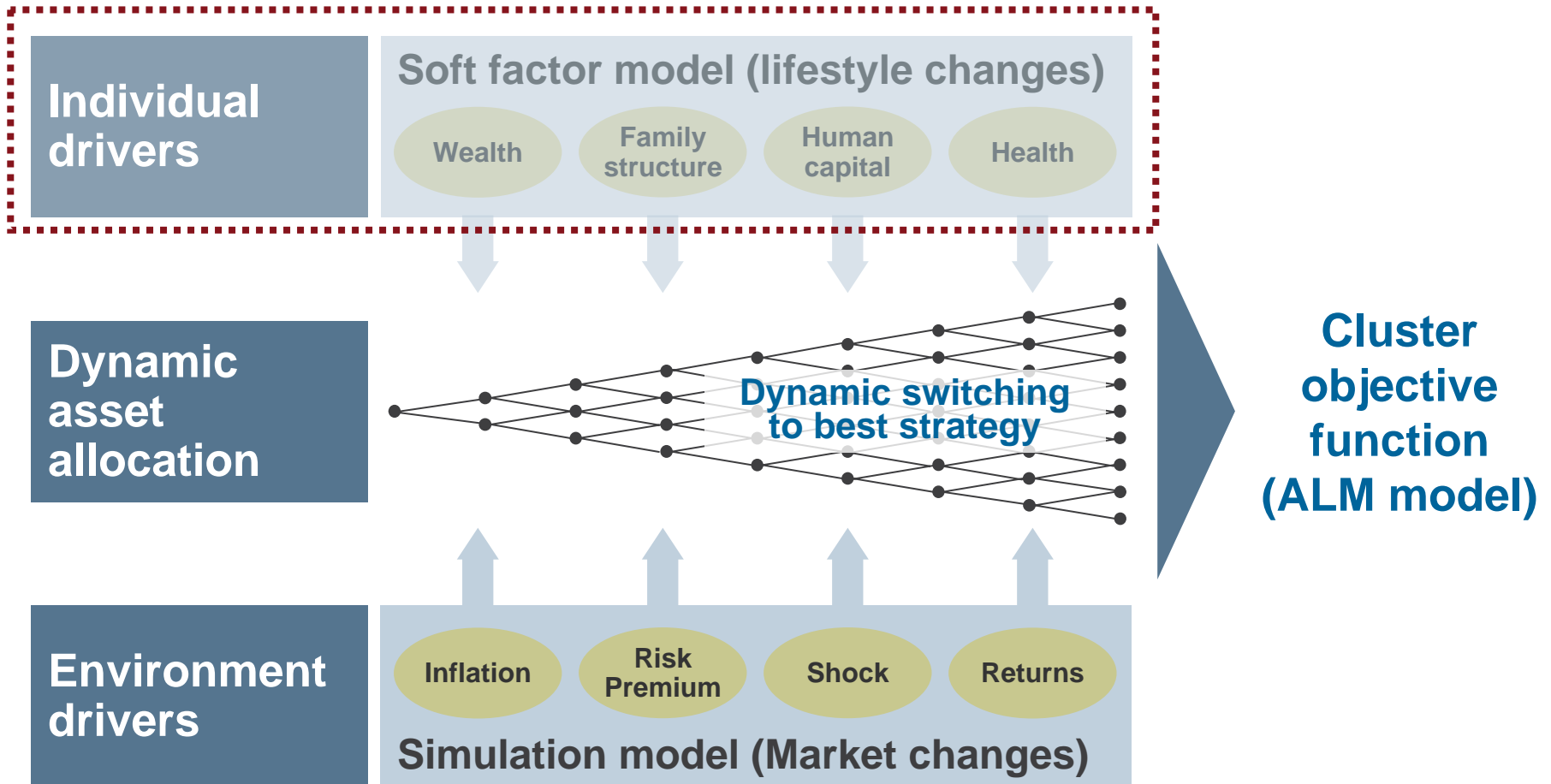


Meeting the majority of client profiles in a multiple aggregated solution: clustering

Key Steps to Provide Multiple Default Solution

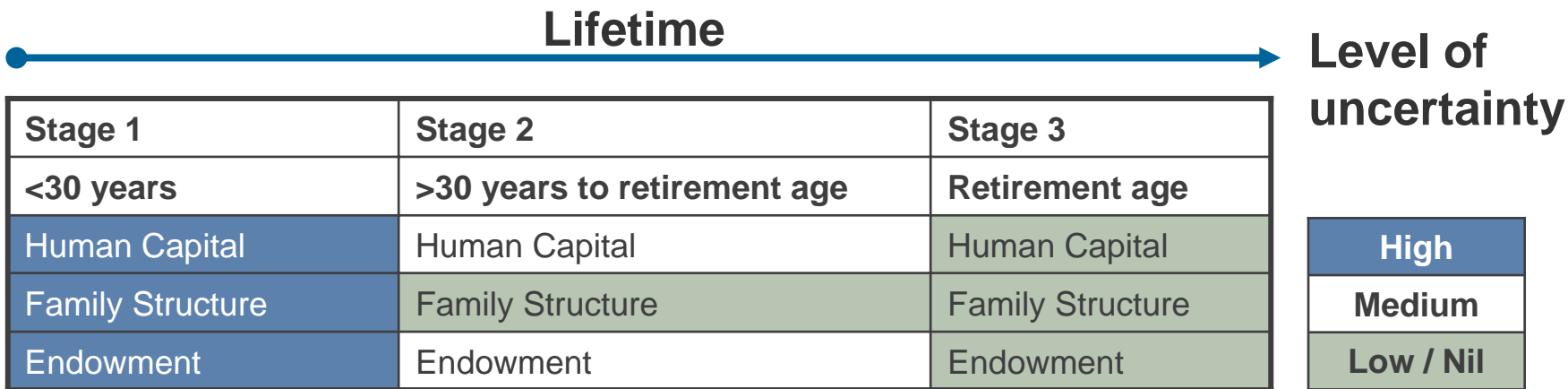


Understand the Client



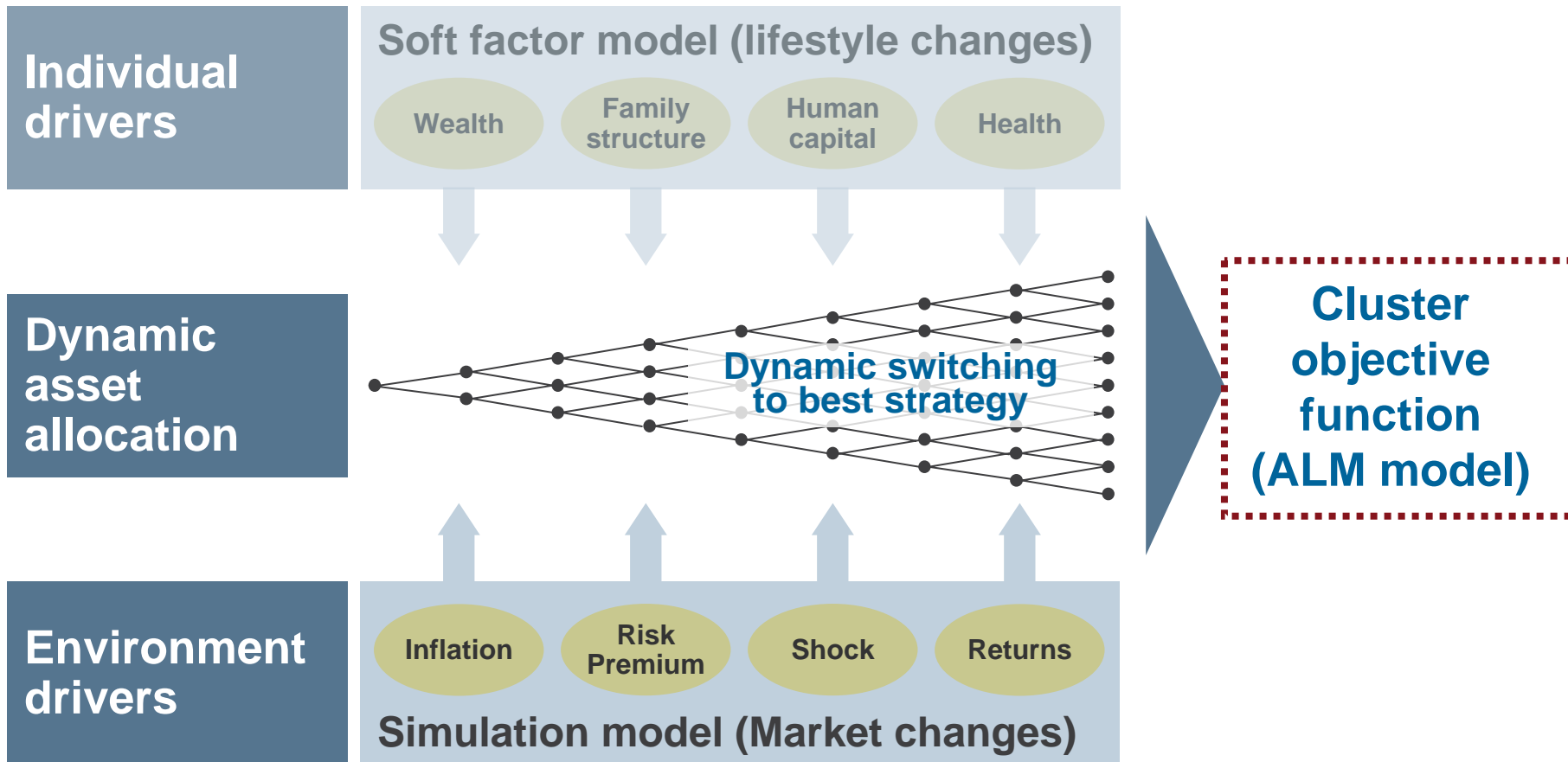
Know Your Clients: Understand the Factors That Drive Decisions

- **Not only age** but: family structure, human capital, starting level of wealth, ownership of a house, ...
- **Risk tolerance reflects uncertainty** in different stages of life

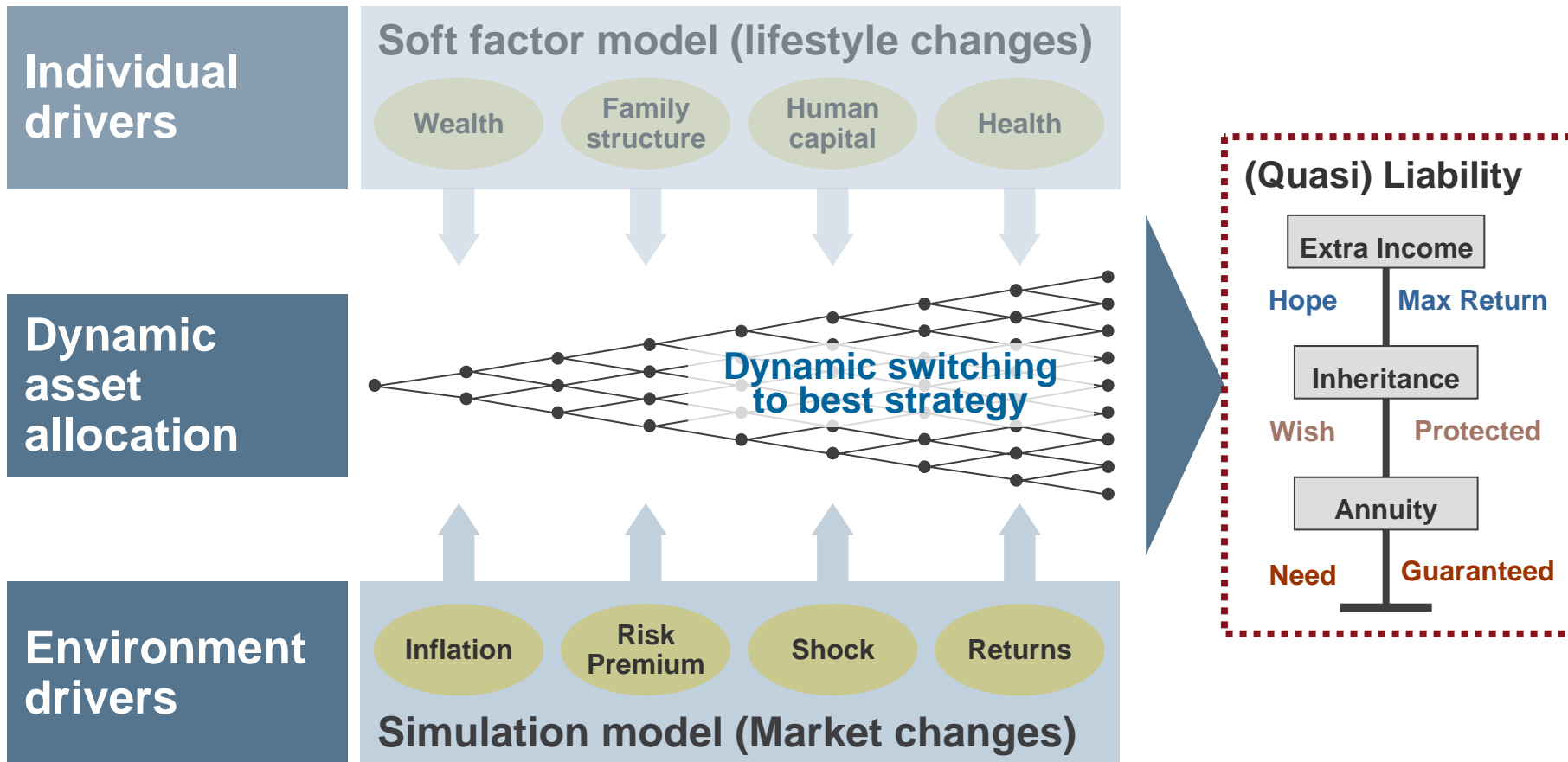


These factors change over time for individuals at a different pace and should be taken into account to build efficient default solutions

Defining Client Utility Function

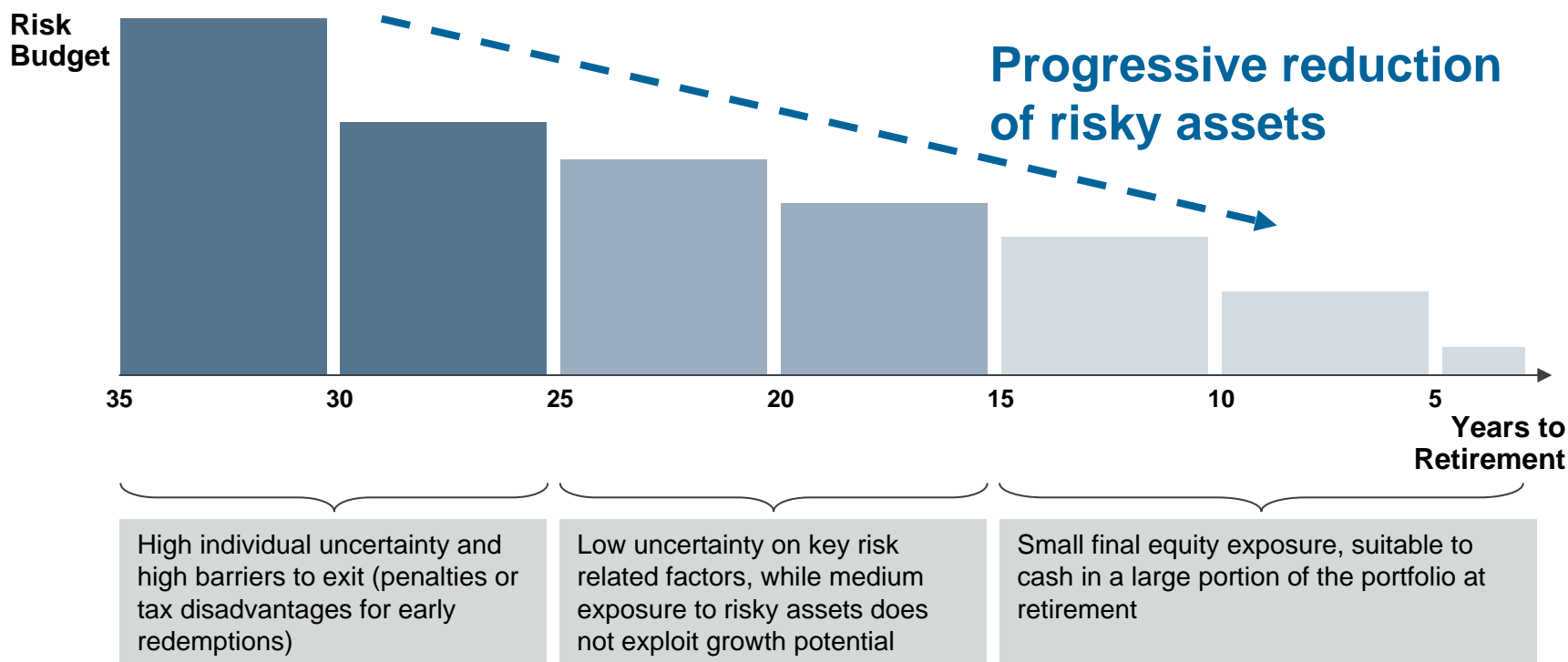


Dynamic Switch to Best Strategy



Traditional Accumulation Models

- Decreasing exposure to risky assets approaching the retirement date
- Tend to allocate risk where the uncertainty related to the individual factors is higher

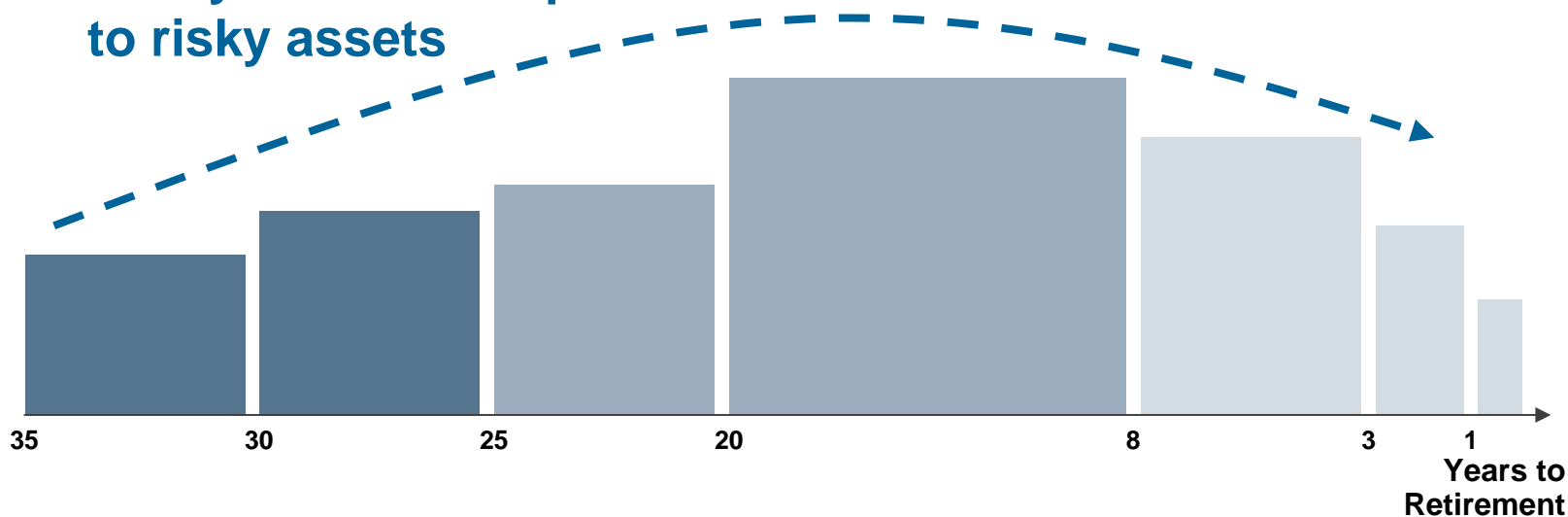


The Hump-Shaped Accumulation Path Incorporates the Individual Factors

Analysing real trends shows risk should be less during times of uncertainty and greater approaching retirement

Risk
Budget

**Lifecycle based exposure
to risky assets**



Lower initial risk budget reflects greater uncertainty due to individual factors

Low uncertainty on key risk related factors.

Higher risk budget at retirement allows active management of decumulation phase

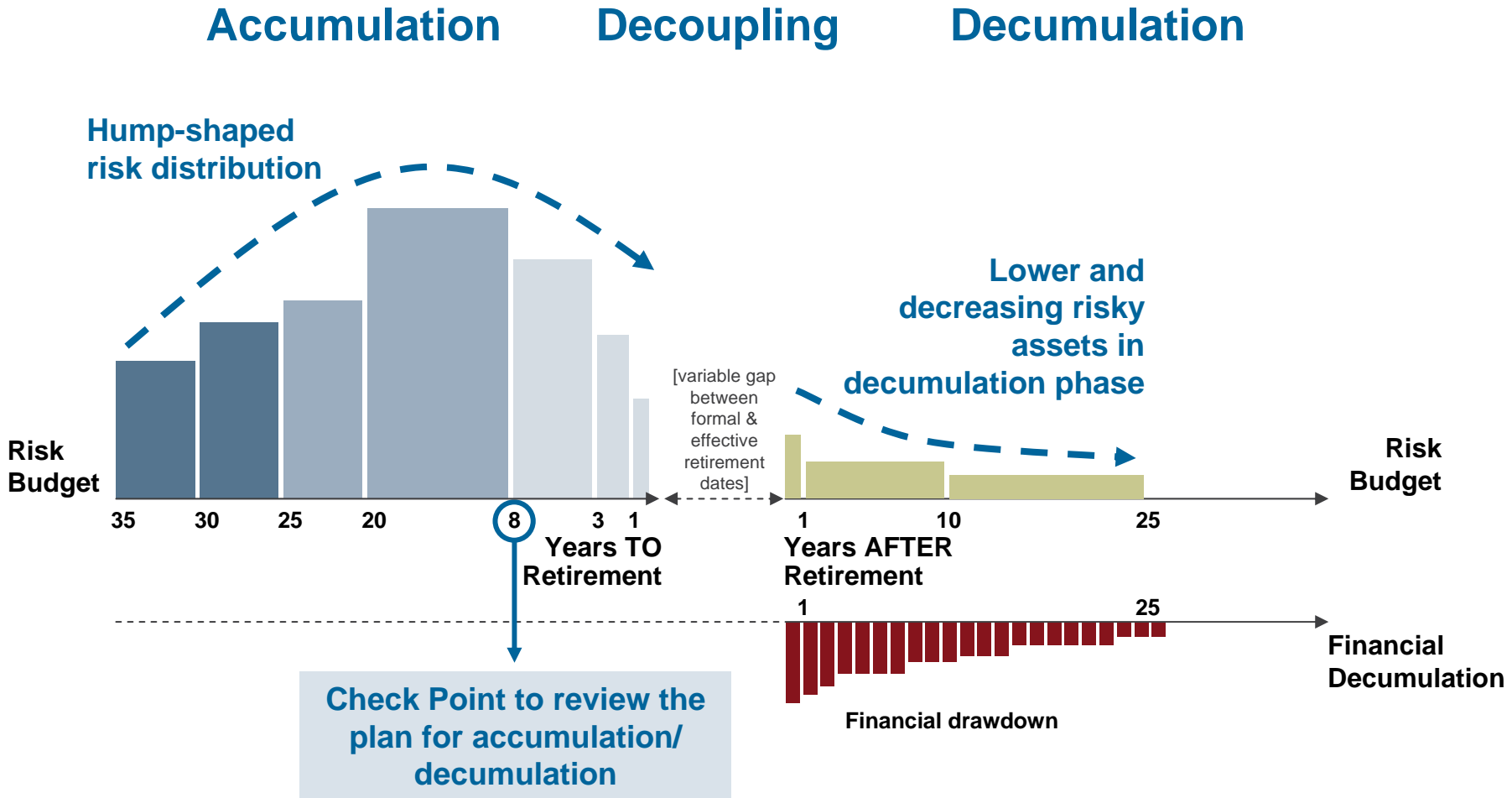
Combining Accumulation and Decumulation to Create an Effective ALM Solution

- **Lifetime approach** to incorporate individuals' risk aversion in every stage of life
- **Decumulation phase as important** as accumulation
- The possible **decumulation solutions depend on accumulation patterns** in a single financial solution, without separating accumulation and decumulation phases
- Implies a **higher advisory need for the client near the formal retirement date** to reconfirm decumulation planning

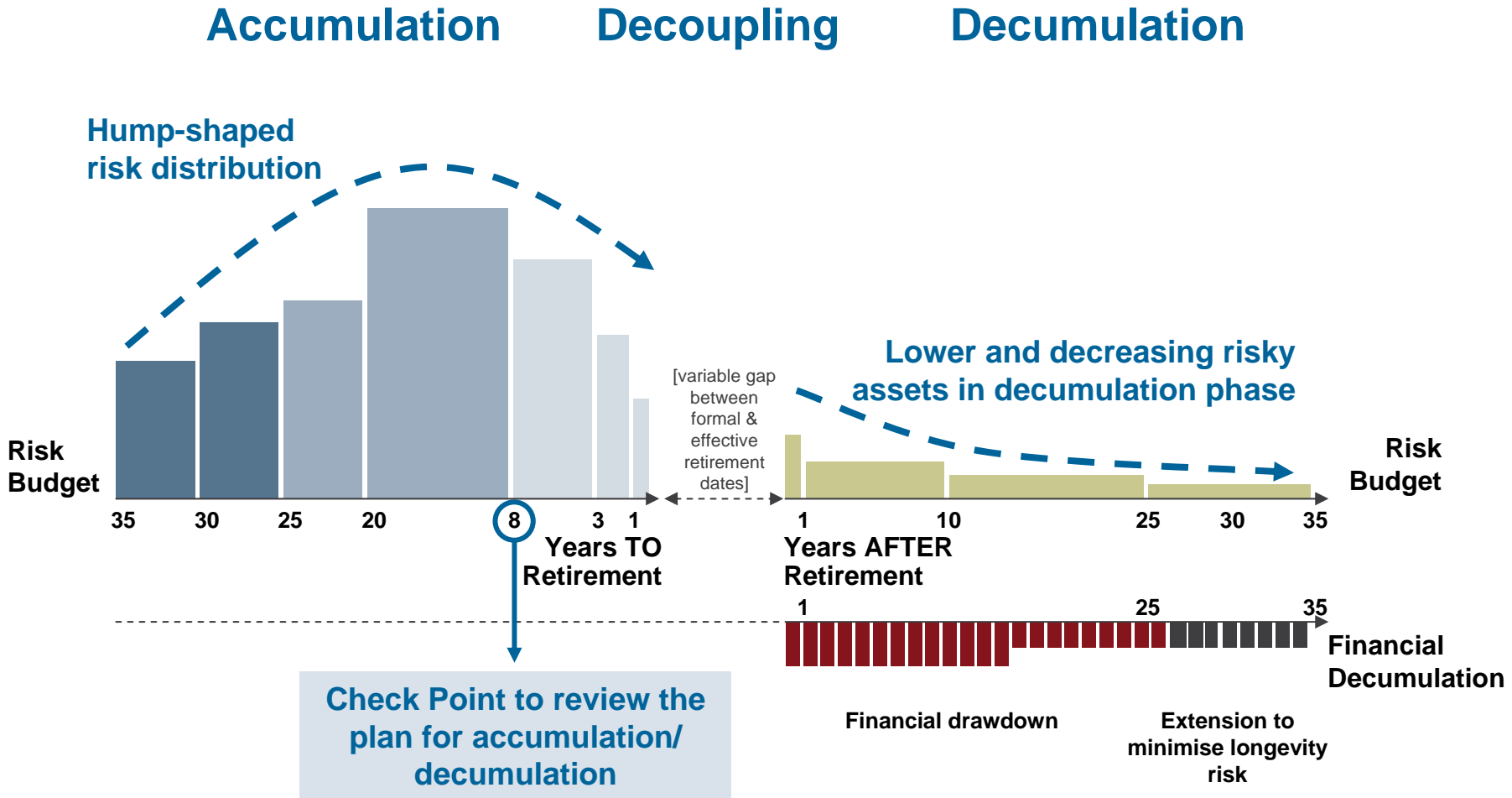


Additional ingredient to build our recommended Default Solutions

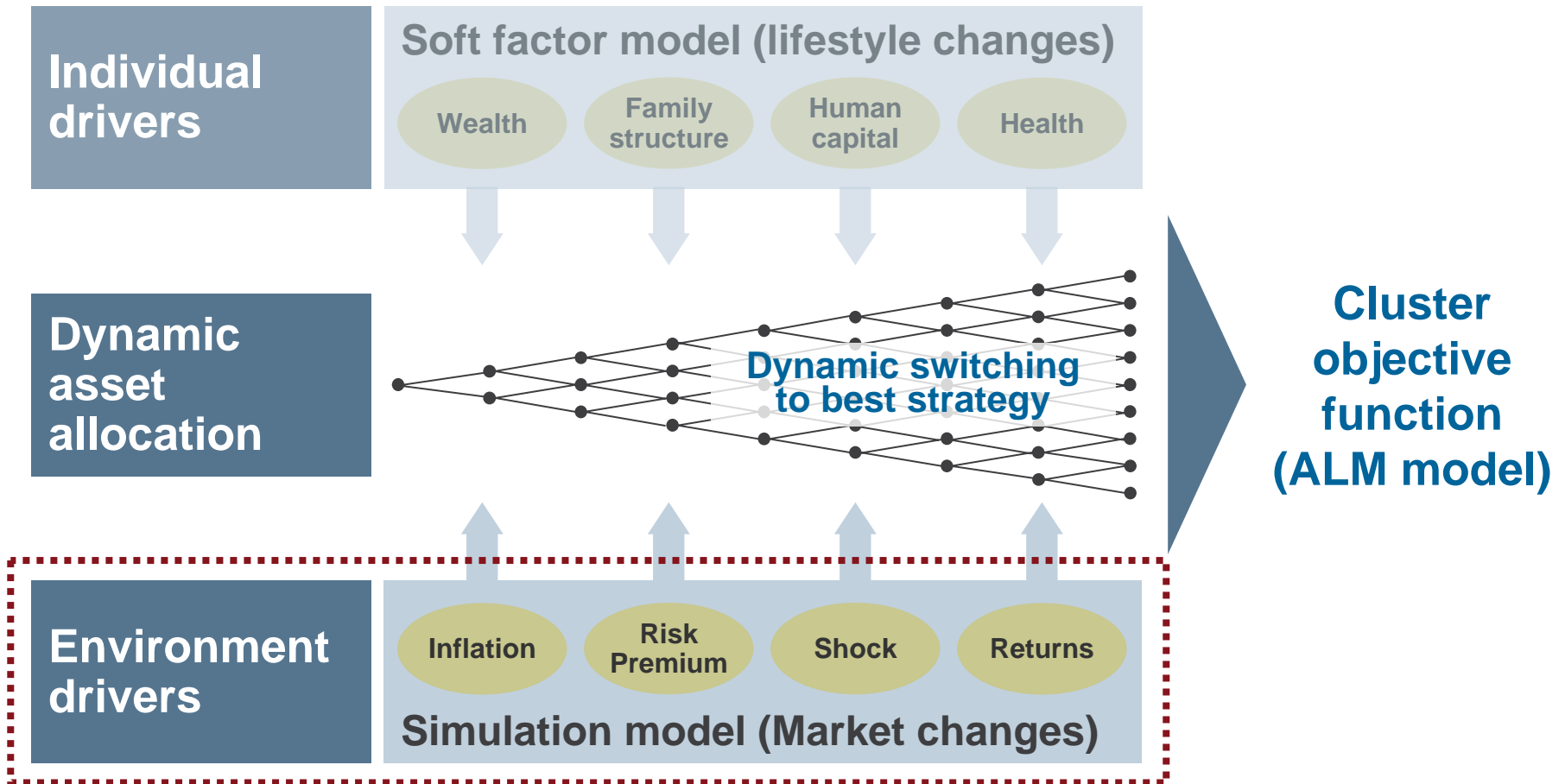
Integrated Accumulation/Decumulation Default Solutions



Integrated Accumulation/Decumulation Default Solutions



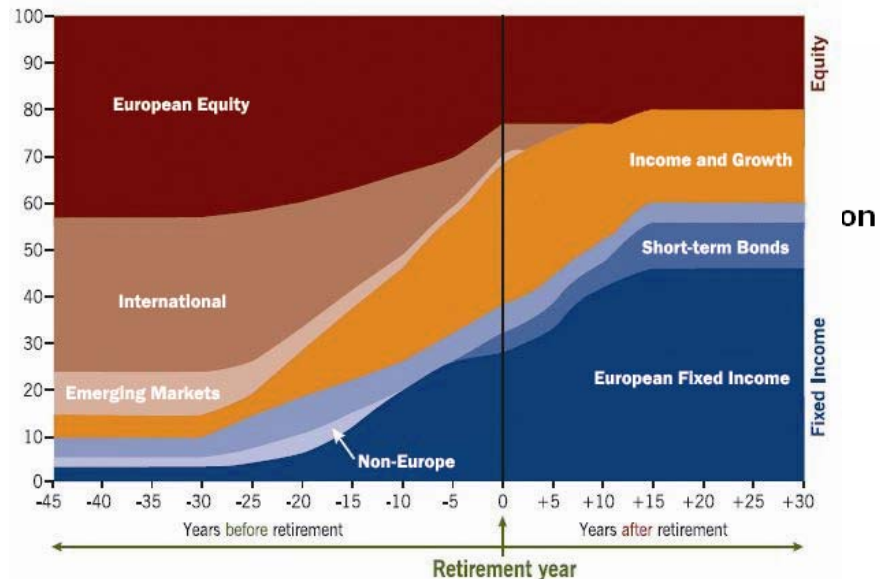
Understand the Environment: Dynamic Switch to Best Strategy



Resources to Build an Efficient Integrated Default Solution

Strong research and sophisticated technology allow to:

- **Simulate the impact and probability of extreme scenarios** (i.e inflation) as forecasting models can be wrong
- **Model long-term trends and dynamics** of the relevant risk factors (eg. inflation and interest rates)
- **Build one core platform approach adjustable for different client targets** as different clients might like different decumulation patterns
- **Run a dynamic asset allocation strategy** rather than a buy-and-hold static portfolio (Multi-stage)



liabilities with acceptable degree of confidence

Scenario	Pioneer	
* Setting the scenario will affect the values below. Pre-defined scenarios from the list are recommended, but users are free to customize the parameters.		
Long-Run Growth Implied	2.68%	$n + g$
Labour Input Growth	0.0053	n
Technology Growth	0.0215	g
Fixed Capital Formation (% GDP)	0.2100	sK

Commercial Application of an Integrated Accumulation/Decumulation Model

- **The approach** to designing a default solution **may be extended to both the second and third pillars**
- It can be implemented as **dynamic advisory** (working in partnership with management firms) **or as open-ended funds**
- The product solution should incorporate complexity but be **presented to client in a simple and transparent way**

Application to the 2nd Pillar: Advisory Based Approach to Drive the Dynamic Asset Allocation

7 steps for an advisory approach:

1. Understand structure of the schema, salary dynamics of the sector
2. Understand regulation and prevailing decumulation preferences, constant, variable and deferred, etc.
3. Mapping participants according to risk related factors, human capital, housing, etc
4. Projecting salaries and future contribution paths, setting the optimal contribution rates
5. Exploiting the acceptable number of default solutions for the schema
6. Elaborating long-term simulations on inflation and main macro factors
7. Calibrating every default solution asset allocation to the intensity of risk factors and desired replacement rates



Definition of the default solution structure

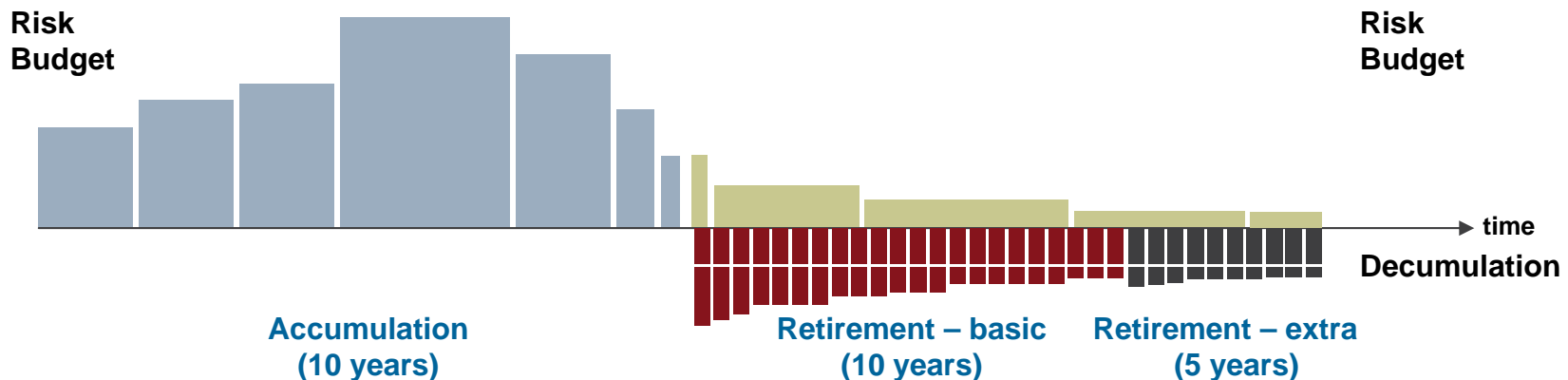
Dynamic advisory acc-dec
on fixed mix portfolios

Dynamic target date
integrated solutions

Application to the 3rd Pillar: Family of Target Date Funds with Variable Risk Profiles

- **Individual product solutions** that manage together the accumulation (with the hump-shaped option) and the decumulation phases
- **Optimised dynamic asset allocation** on country-specific parameters such as:
 - Macro/salary dynamics
 - Demographic risk preferences

Example of a target dated fund (2032: 10-10-5)



Conclusion

- Long-term savings decisions for individuals are among the most important they face and **default solutions are recommended**
- **The asset manager industry has a key role** in developing a model that takes into account all macroeconomic, sector specific and individual factors
- An effective default solution needs to **integrate accumulation and decumulation patterns** taking into account individual specifics
- The **collaboration and partnership with all the players in the process is critical** to gather information and to tailor the product
- Despite the complexity of the models, **the commercial solution should be simple and transparent for the client**

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