



ASSOCIATION ACTUARIELLE INTERNATIONALE  
INTERNATIONAL ACTUARIAL ASSOCIATION



Institute of Actuaries of India



# 13<sup>th</sup> Global Conference of Actuaries 2011

## *Emerging Risks... Daring Solutions*

### Evolution of Retirement Risks in the 21<sup>st</sup> Century

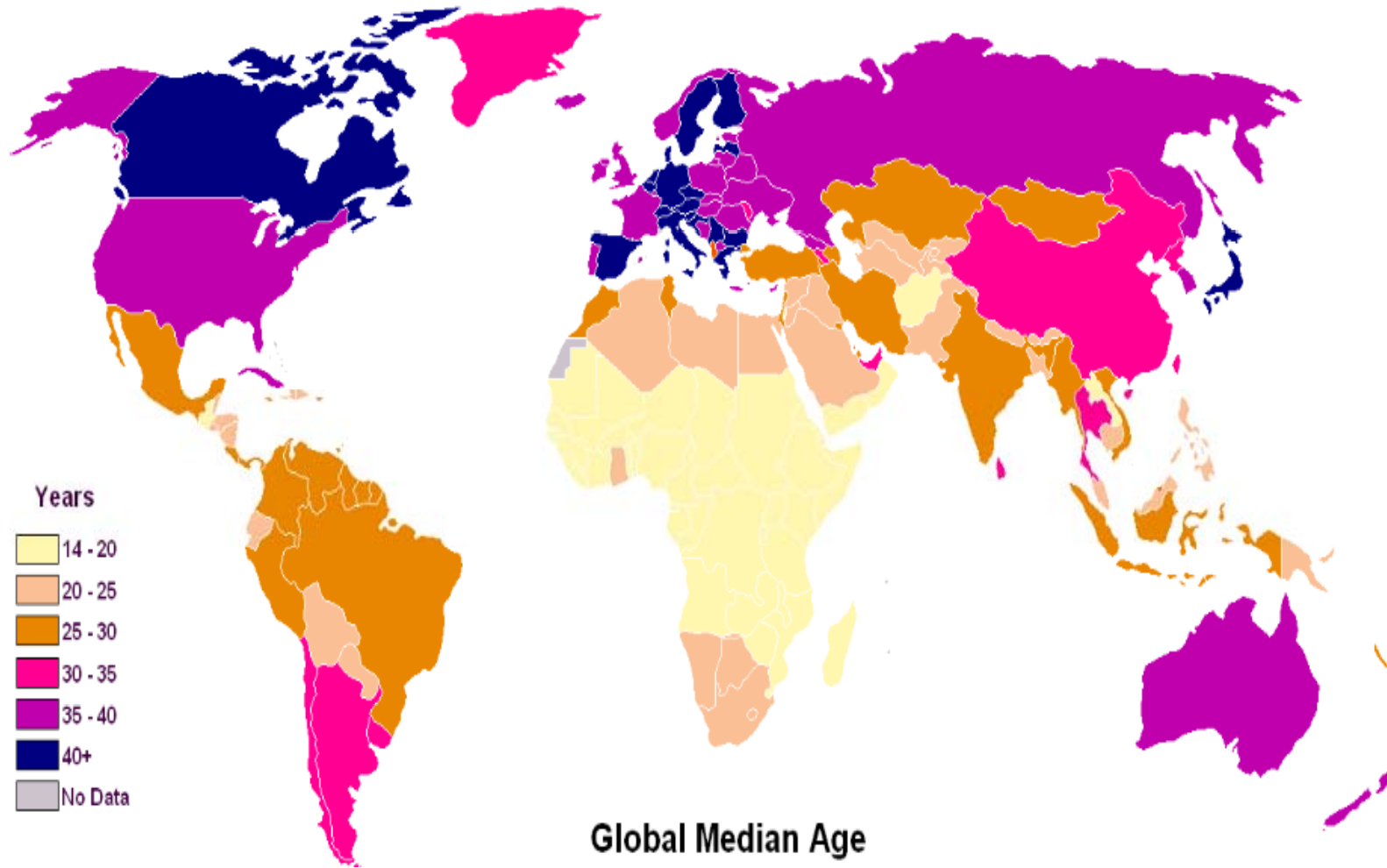
Edouard Merette

CEO (Asia Pacific) – Aon Hewitt

Singapore

February 20 – 22, 2011

# The Ageing Society Issue is No Secret

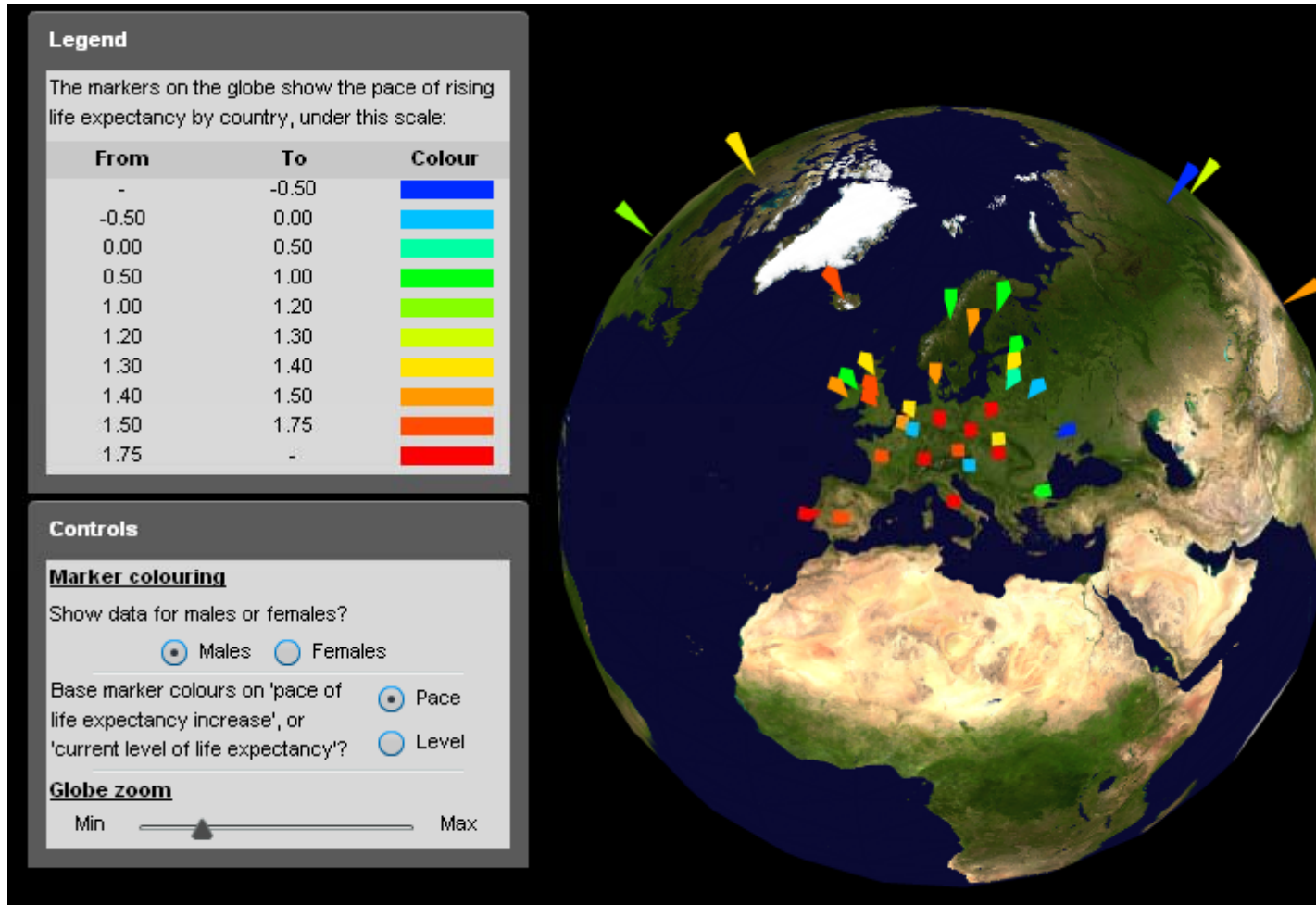


13<sup>th</sup> Global Conference of Actuaries 2011

February 20 – 22, 2011



# Life Expectancy is Increasing – but How Quickly?



# The World has Evolved During the Last 40 Years

## Macro Changes

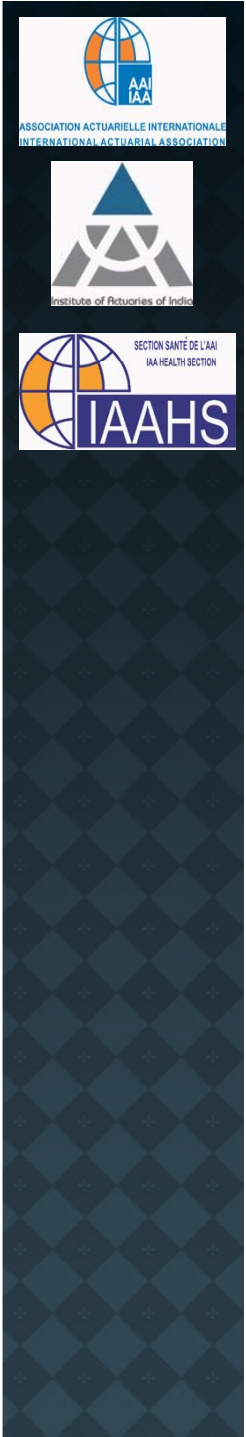
- Educated workforce
- Extension of freedom
- Technological revolution
- Rise of Asia
- Massive global interdependence

## Technological Changes

- Cross-border movement of labour. Work itself now more virtual
- Many businesses now in global markets
- Lower cost of business start-up
- Need for speed increasing
  - Pressure on larger corporations
  - Shorter periods of employment
- Reputation/branding matters much more

## Societal Changes

- Human capital becoming more important than physical capital
- Individual customers have more power, individual employees have more power
- Individuals now matter more than groups did





# There is a Social Crisis Coming

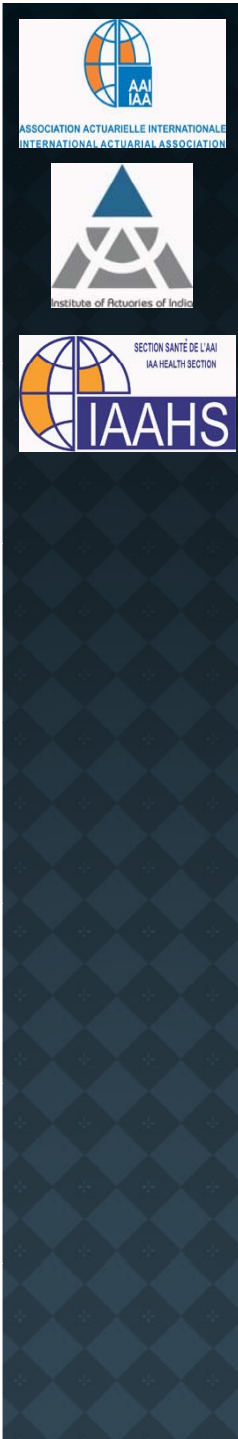
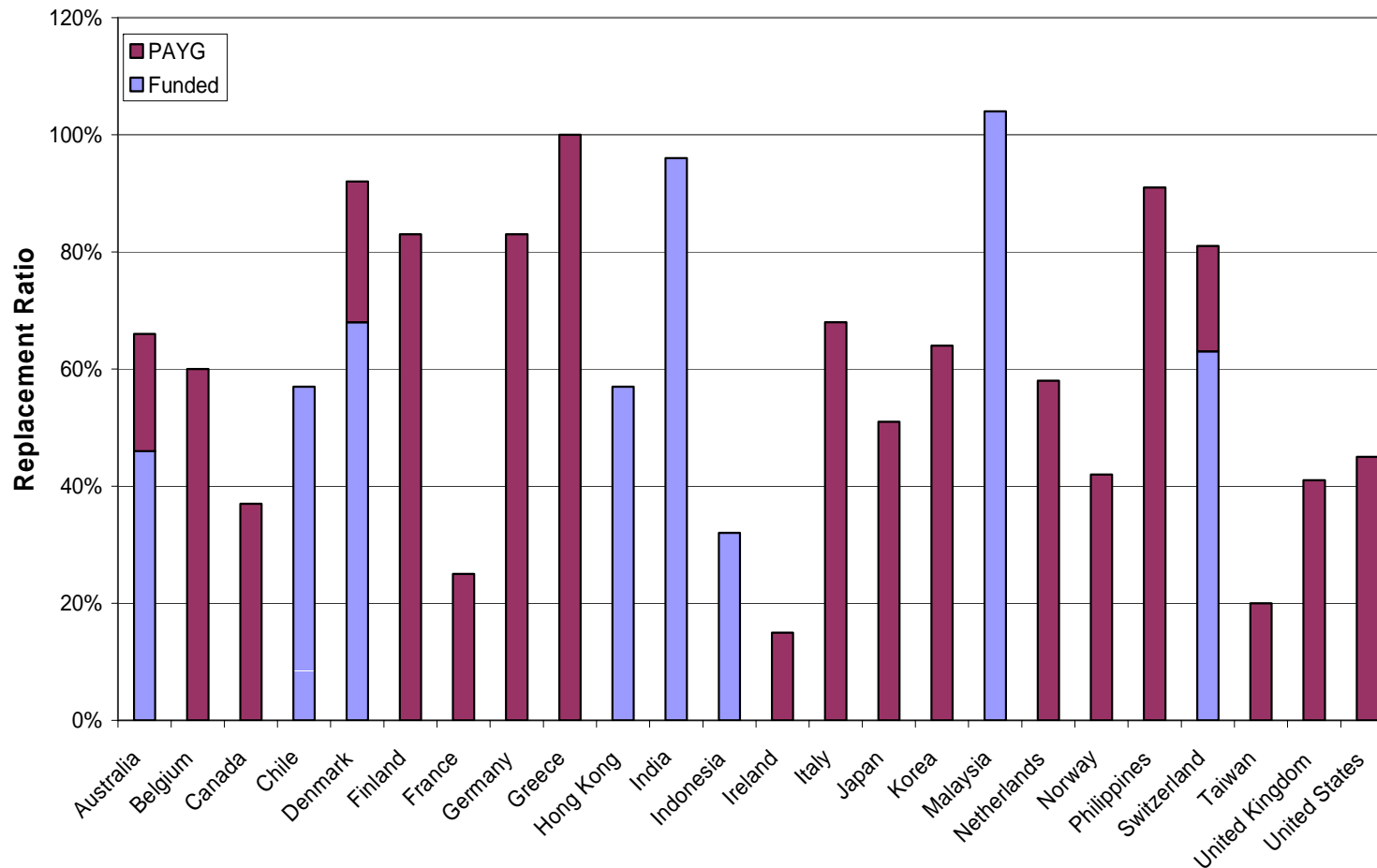
“The future has already happened”

- People living longer
  - People having fewer children (generally)
  - We can predict the future workforce
- 
- Cost constraints on social security systems
- 
- What will happen when people run out of money at age 80+?
  - No single employer can fix it – must be a public policy issue, everywhere



# Can State Pensions Be Relied Upon to Provide an Income?

Pillar 1 Replacement Ratios and Source of Funding in Sample Countries



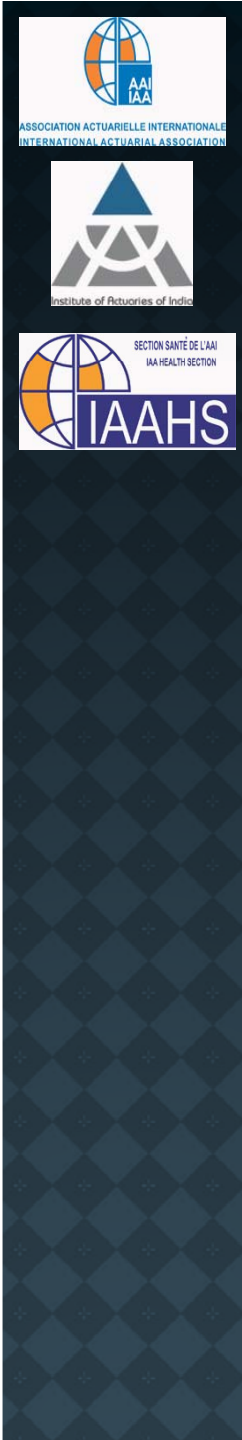
# Governments Respond to Recent Economic Instability

**Interest  
Rate Cuts**

**Fiscal  
Stimulus**

**Lender of  
Last Resort**

**Bank Life  
Support**

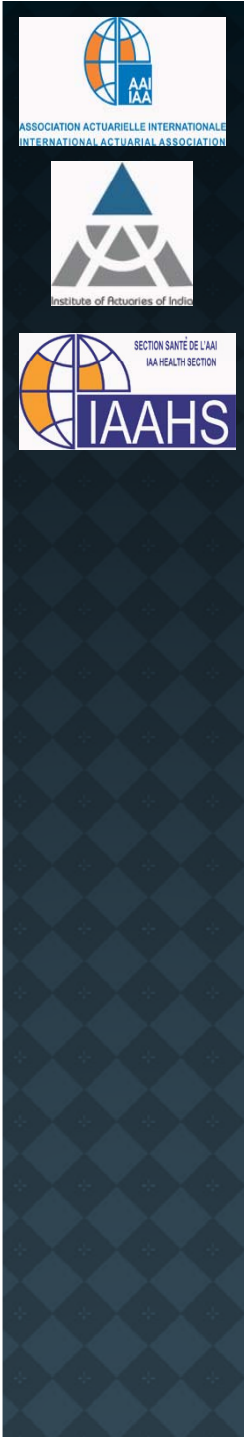


# What Will Be the Consequences, and How Will These Affect Pensions?

**Deflation**

*or*

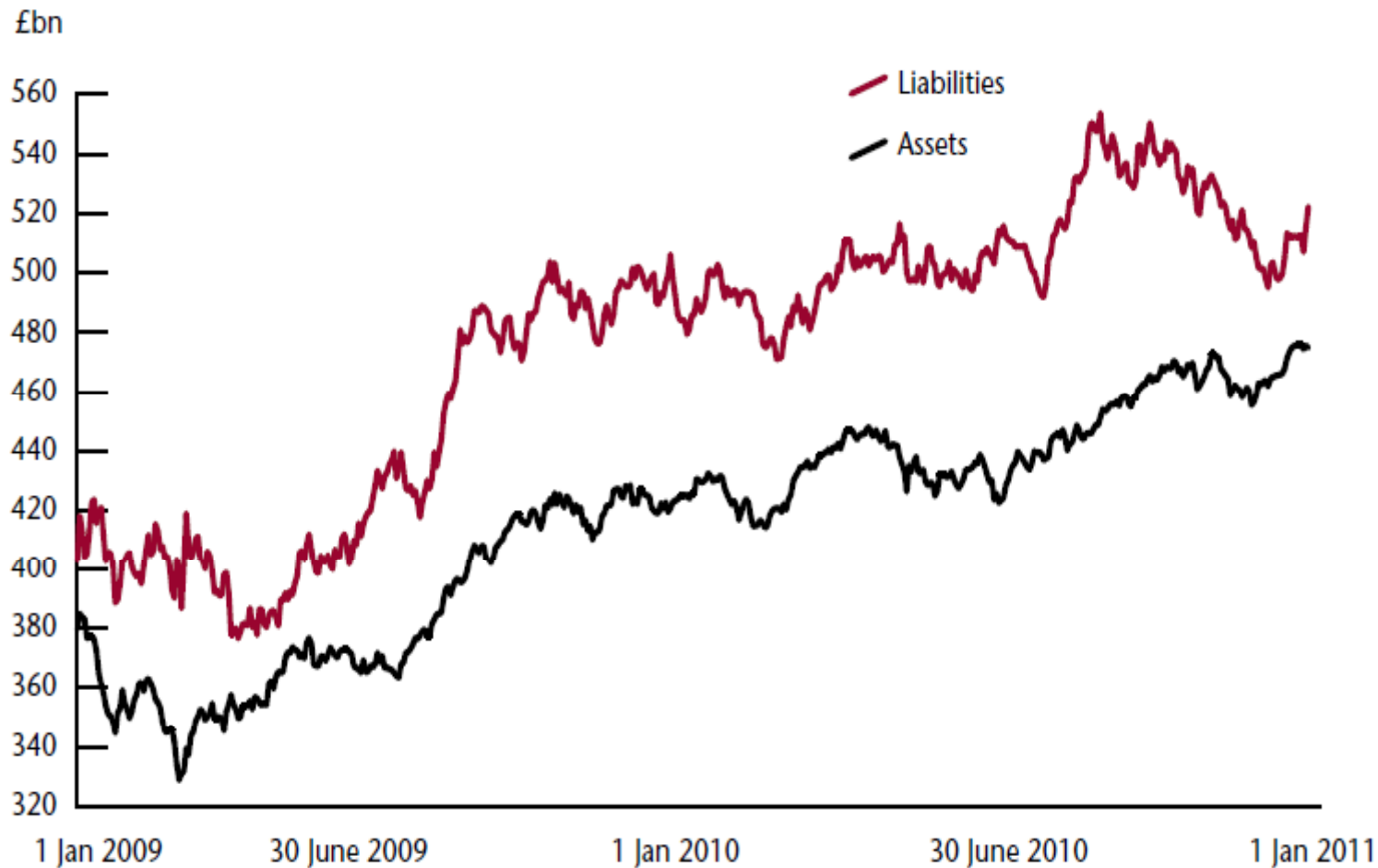
**High  
Inflation**





# Employers Face Significant Financial Challenges

Assets and Liabilities of pension plans of FTSE 350 companies

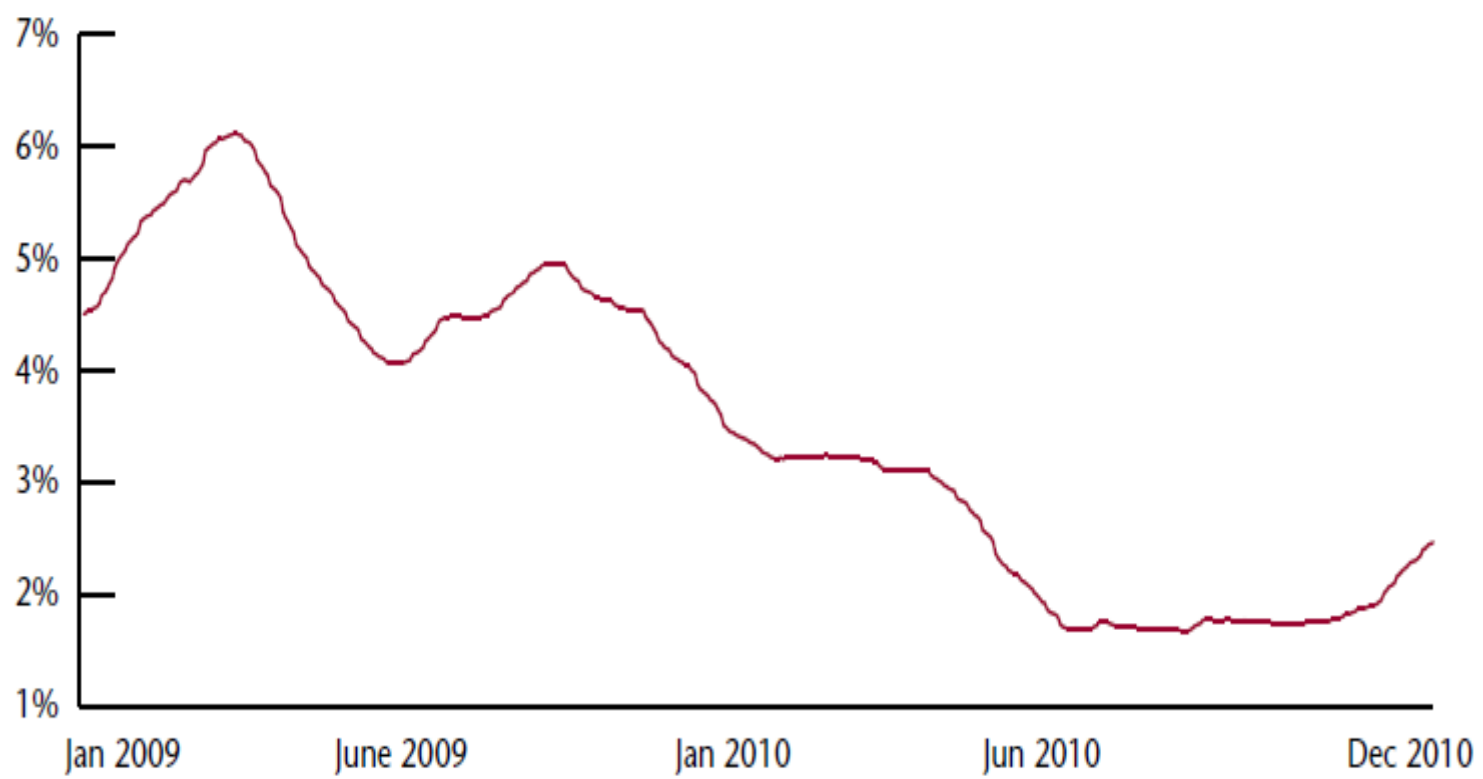


Source: Pension Risk Tracker accessible at <https://rfmtools.hewitt.com/PensionRiskTracker>



# Volatility is Often Not Desirable for Finance Directors

PVIX — 365 day rolling volatility of the FTSE 350 funded status



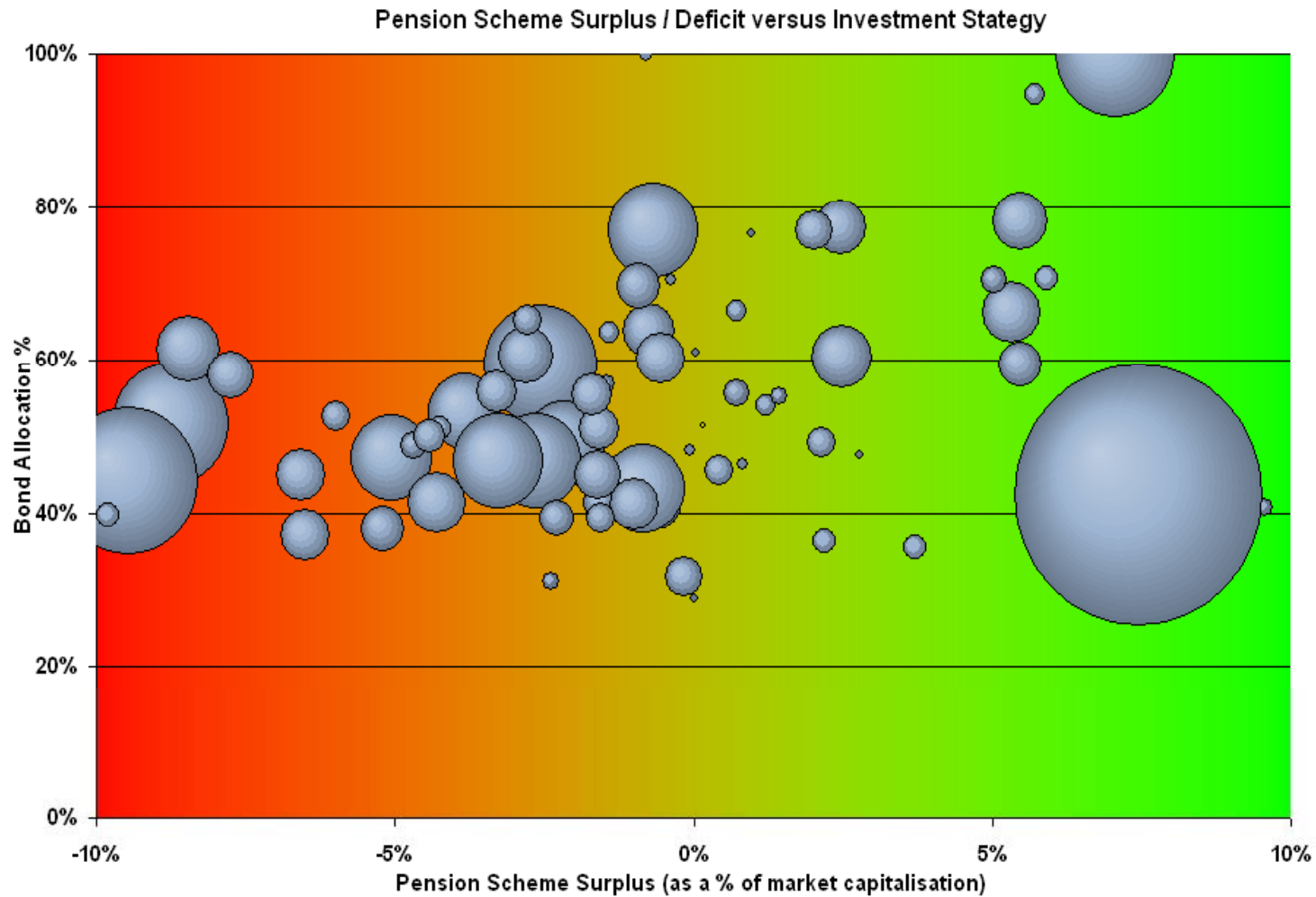
Source: <https://rfmtools.hewitt.com/PensionRiskTracker>.

AAI  
IAA  
ASSOCIATION ACTUARIELLE INTERNATIONALE  
INTERNATIONAL ACTUARIAL ASSOCIATION

Institute of Actuaries of India

SECTION SANTÉ DE L'AAI  
IAA HEALTH SECTION  
IAAHS

# Many Employers Have Material Retirement Schemes with Deficits



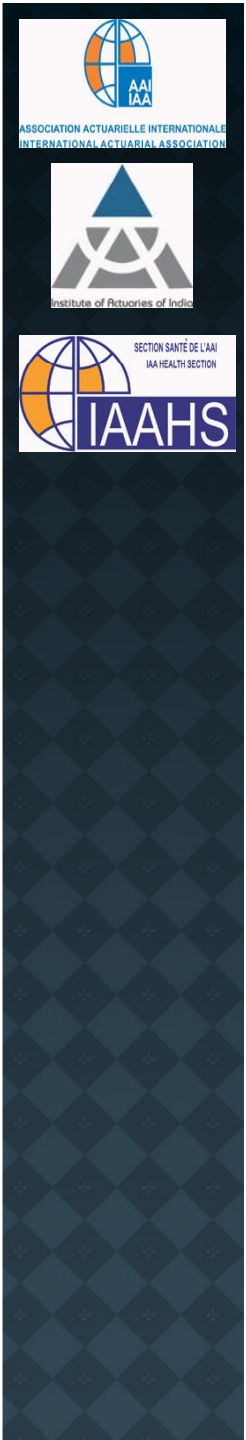
AAI  
ASSOCIATION ACTUARIELLE INTERNATIONALE  
INTERNATIONAL ACTUARIAL ASSOCIATION

Institute of Actuaries of India

SECTION SANTÉ DE L'AAI  
IAA HEALTH SECTION  
IAAHS

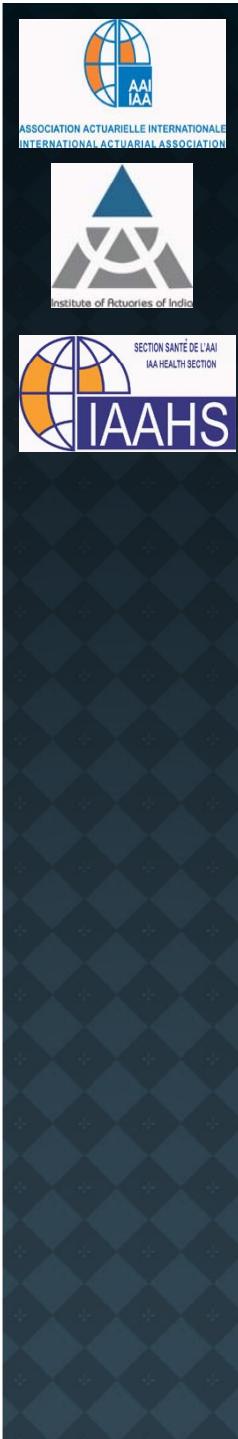
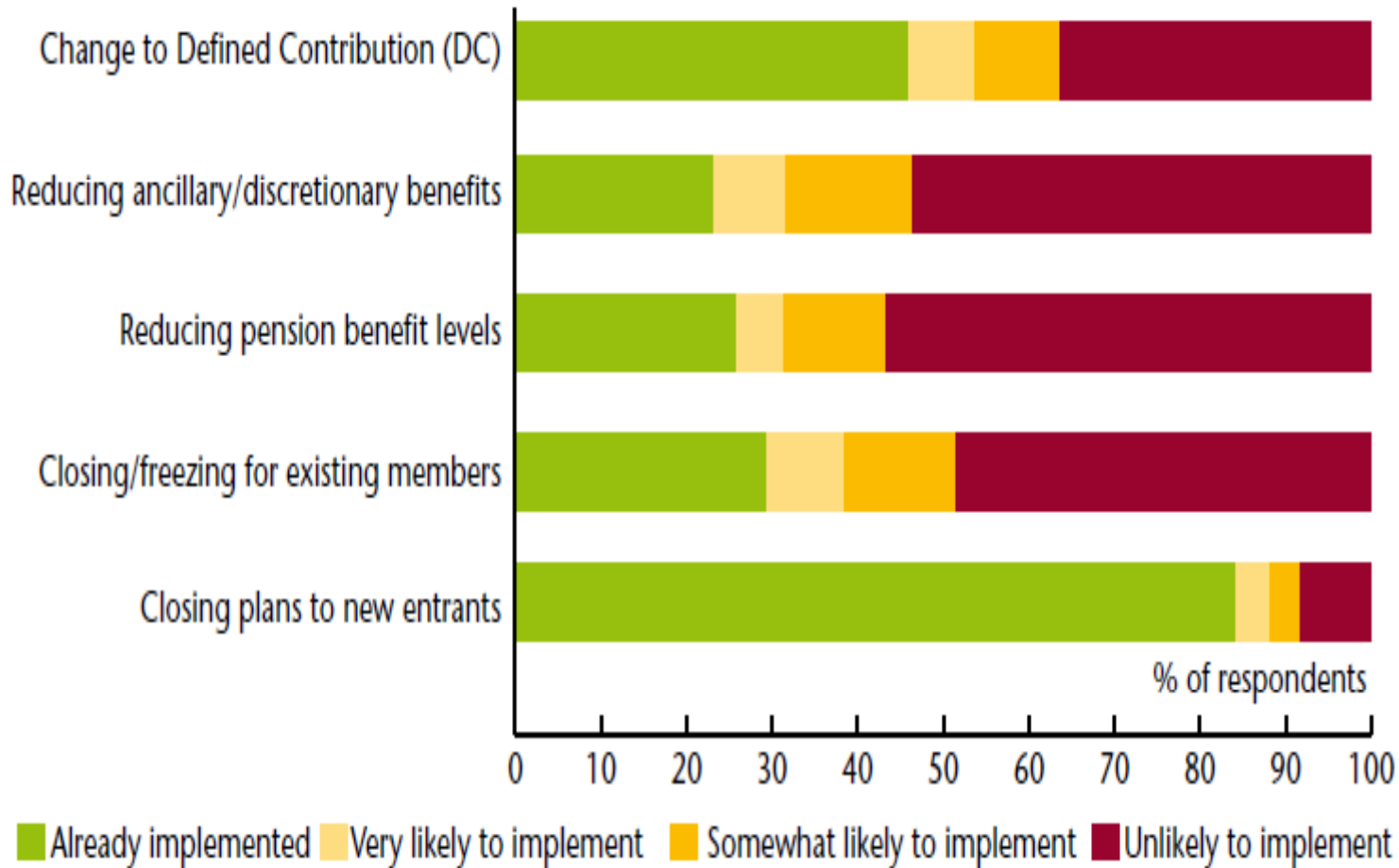
# Major Risks Areas of Importance to Corporate Sponsors

<p><b>Strategic Risk</b> <i>The way in which benefit plans support the firm's wider HR and business goals.</i></p>	<p><b>Financial Risk</b> <i>Economic and demographic variability within benefit plans and the way in which this variability is mitigated.</i></p>
<p><b>Regulatory Risk</b> <i>Compliance with the requirements of legislation and other procedures under the requirements of tax, labour and other regulatory bodies.</i></p>	<p><b>Operational Risk</b> <i>The processes and governance of plans within the firm.</i></p>



# Strategic Risk - Transferring Financial Risk to Individuals

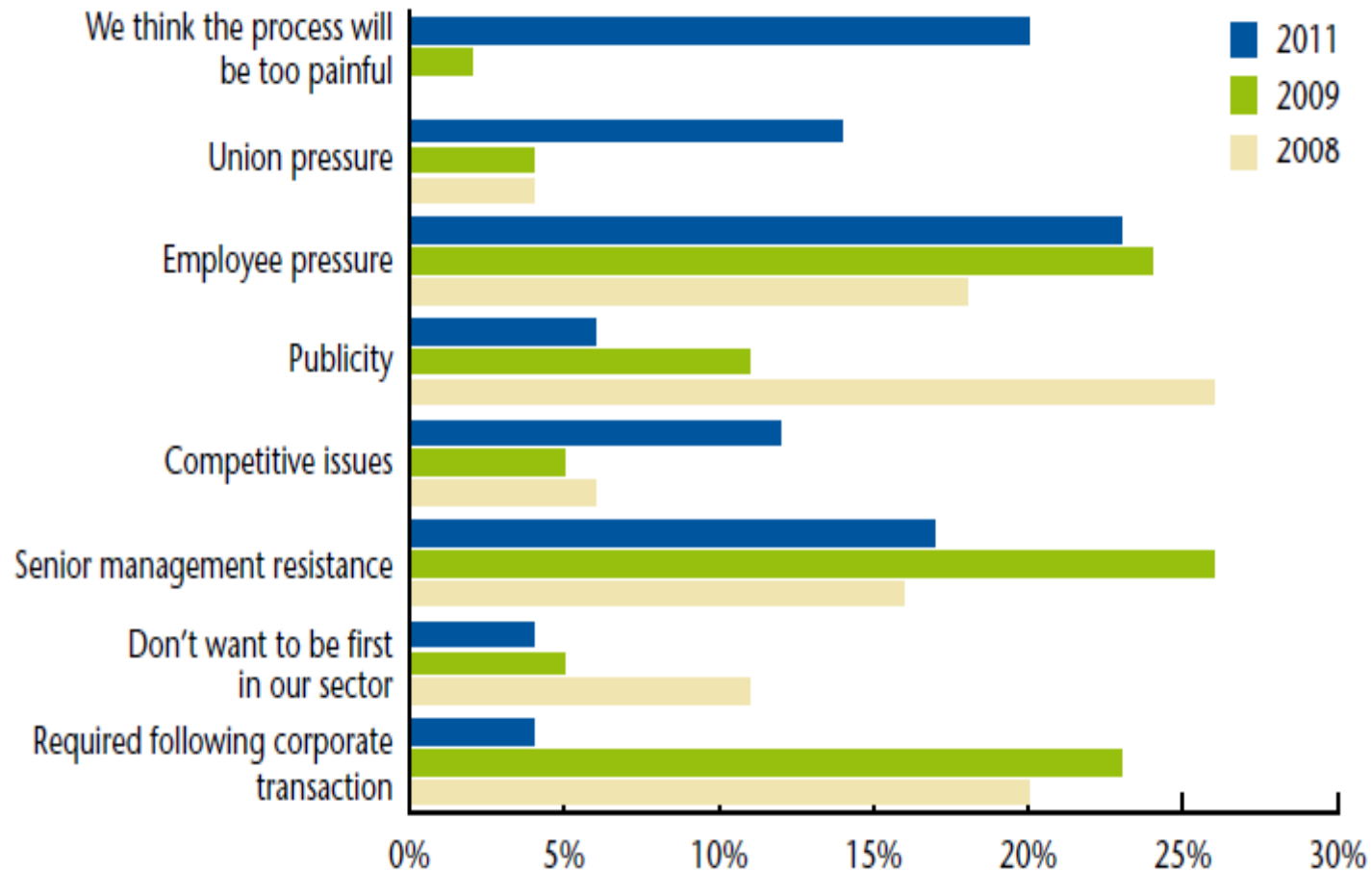
What is your attitude to the following strategies over the next 12-24 months?





# Strategic Risk – Transferring Financial Risk Isn't Always Straightforward

Top three reasons (weighted) for keeping plans open

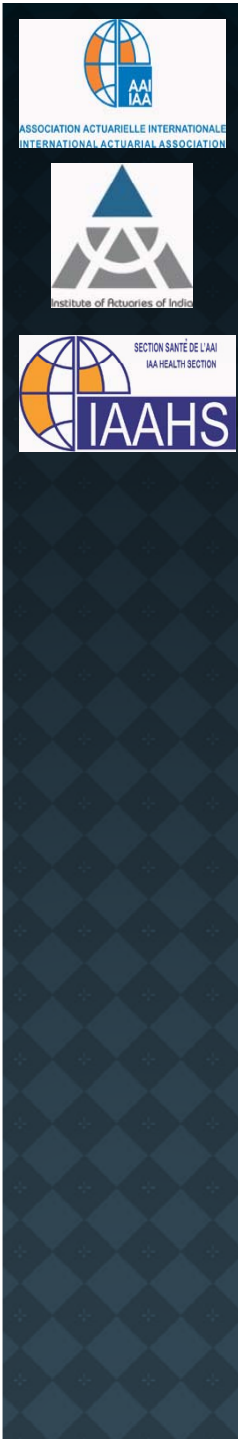
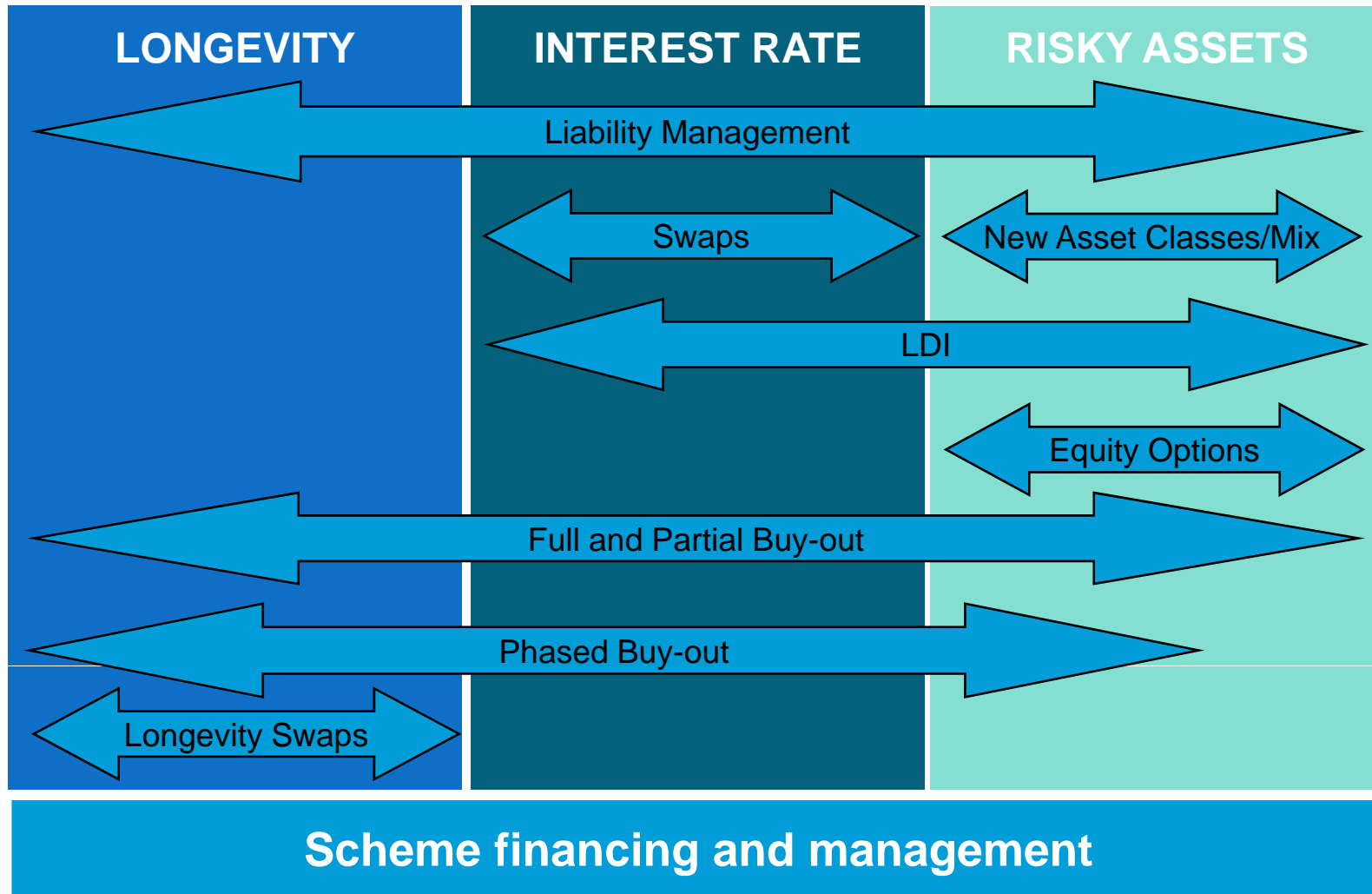


AAI  
IAA  
ASSOCIATION ACTUARIELLE INTERNATIONALE  
INTERNATIONAL ACTUARIAL ASSOCIATION

Institute of Actuaries of India

SECTION SANTÉ DE L'AAI  
IAA HEALTH SECTION  
IAAHS

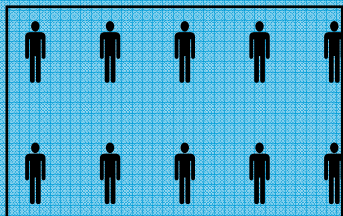
# Financial Risk Can Still Exist in Respect of Past Service



# Longevity Risk for Employers has Multiple Components

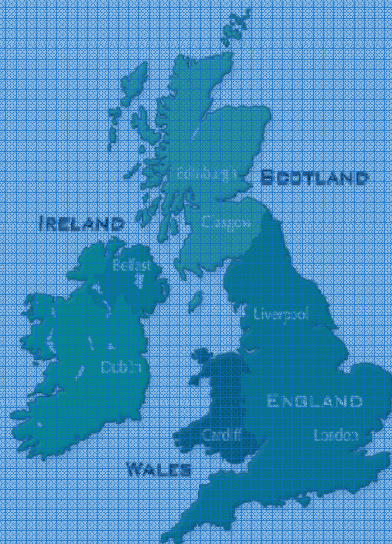
## Idiosyncratic Risk

*Even if you knew the “correct” mortality rate, experience will differ, particularly in small schemes.*



## Basis Risk

*How an individual scheme differs from the big population, and the difficulty of measuring this and its implications.*



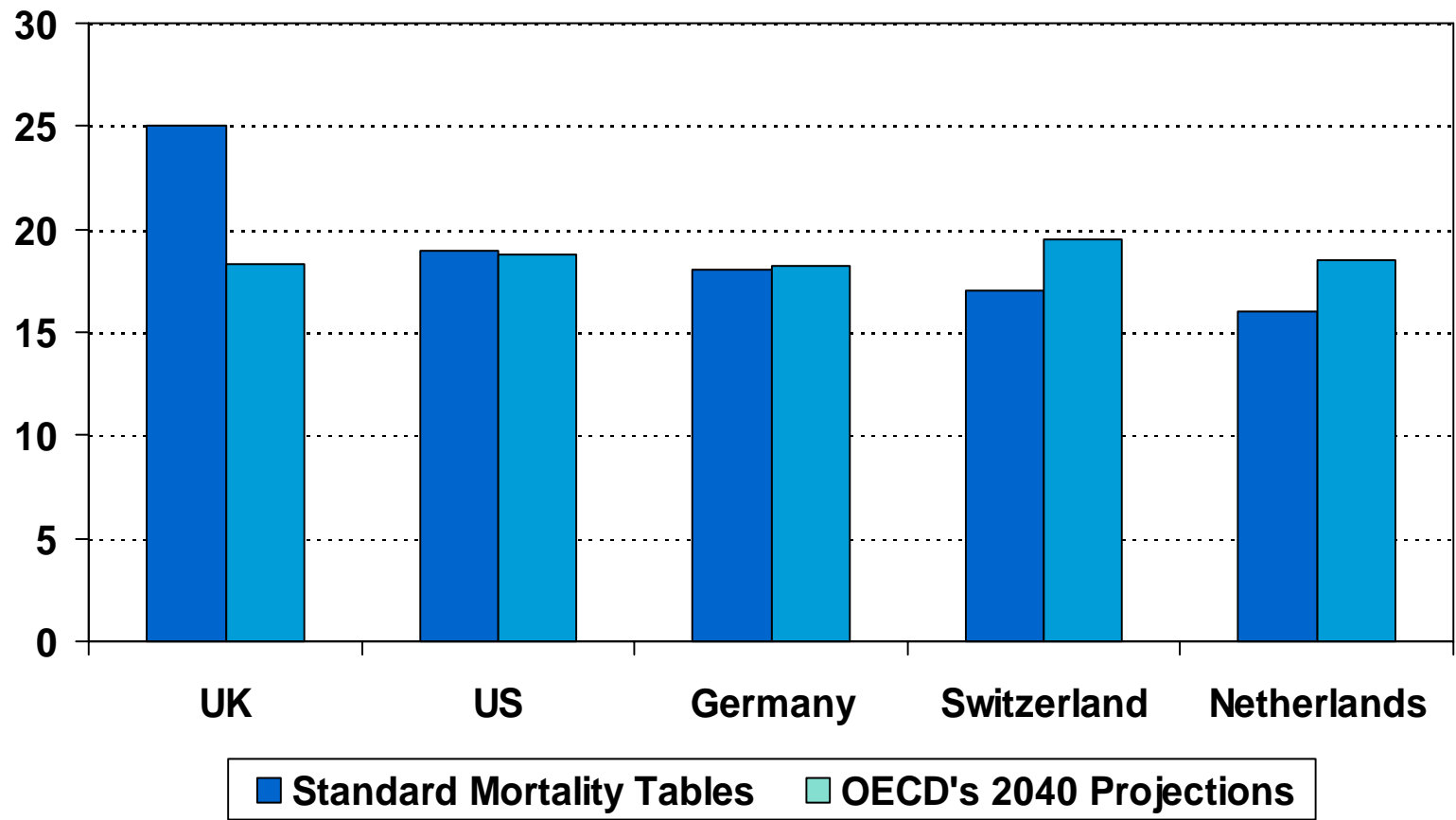
## Systematic Risk

*Changes in general longevity for a big population*



*“First person to live to 1,000 might be 60 already”*

# Life Expectancy Assumptions Can Cause Different Problems



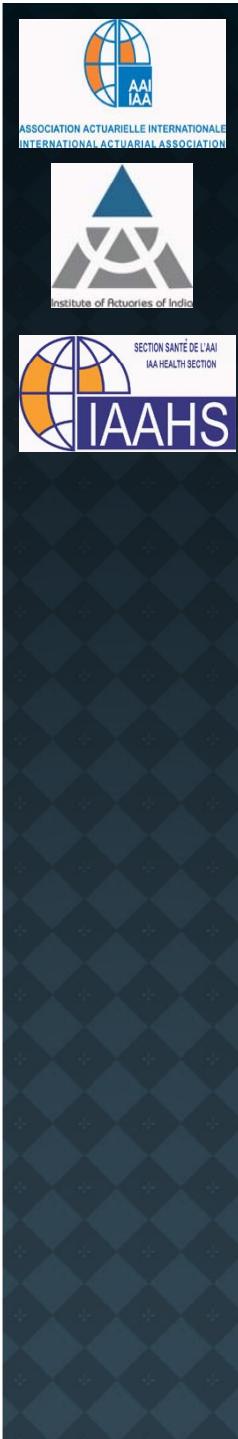
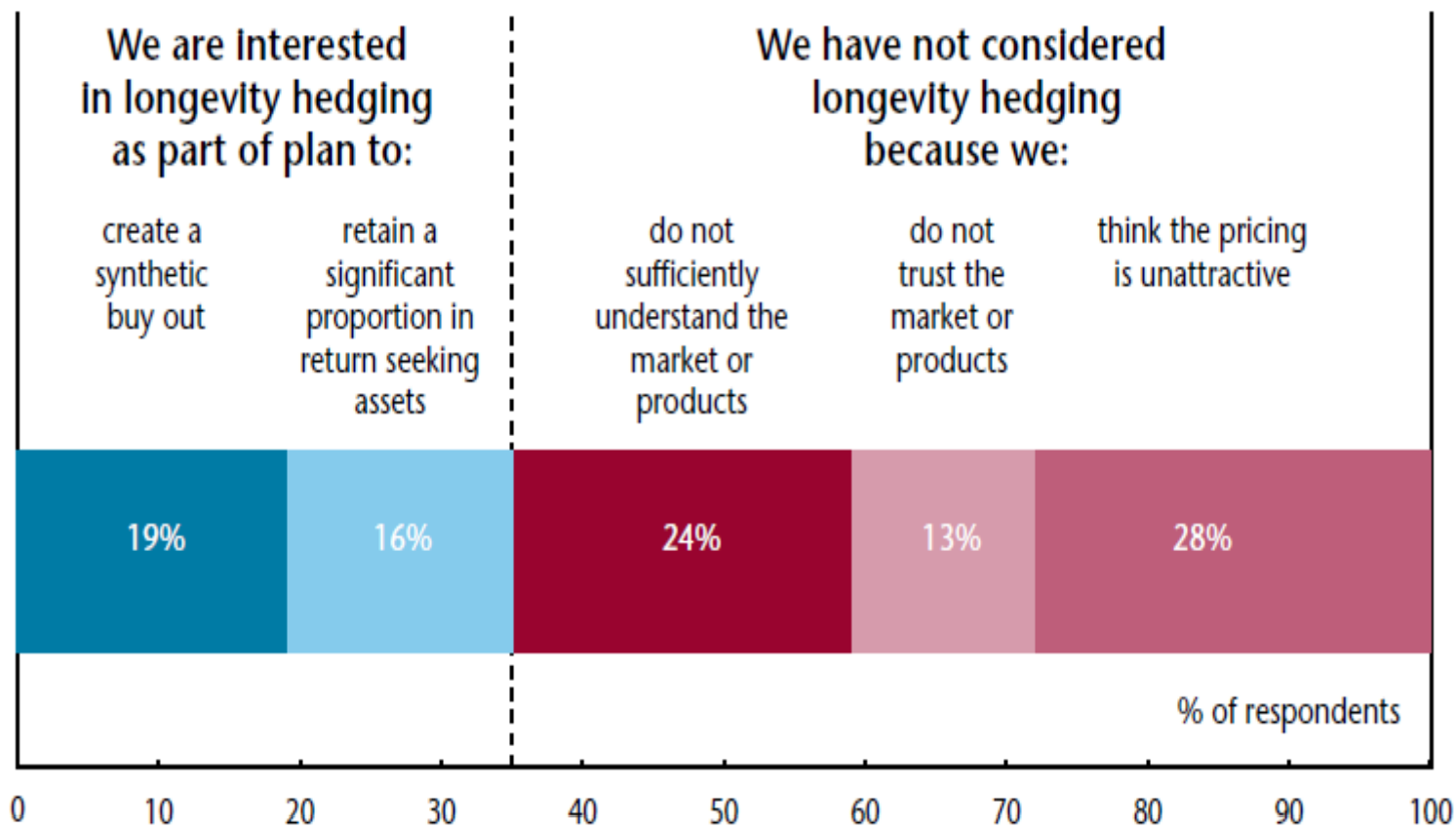
AAI  
IAA  
ASSOCIATION ACTUARIELLE INTERNATIONALE  
INTERNATIONAL ACTUARIAL ASSOCIATION

Institute of Actuaries of India

SECTION SANTÉ DE L'AAI  
IAA HEALTH SECTION  
IAAHS

# Attitudes Towards Hedging Longevity Risk Are Mixed

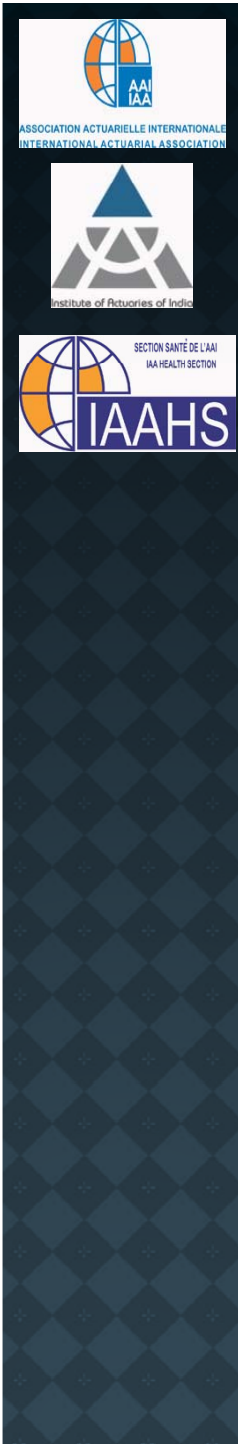
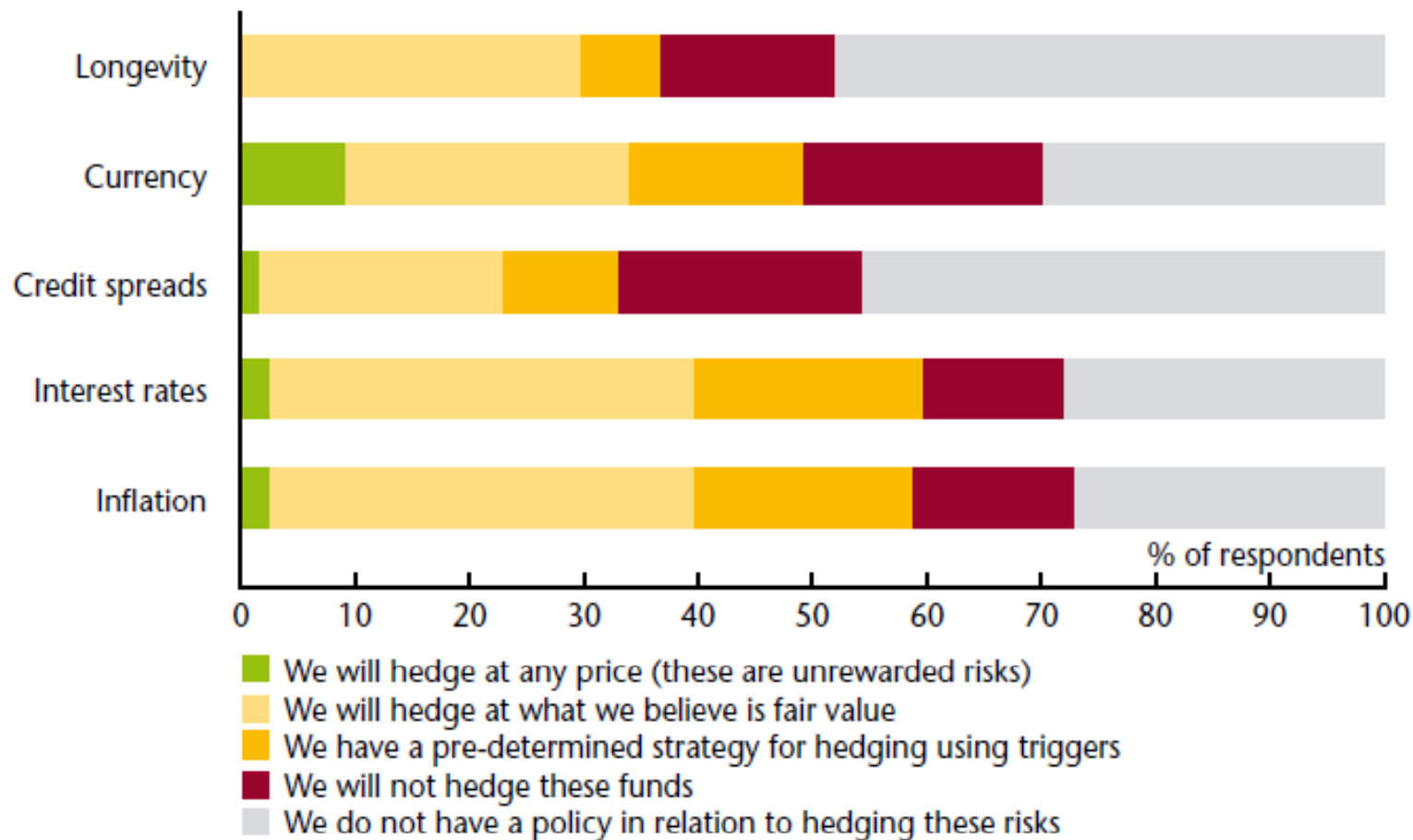
How would you describe your attitude to hedging longevity risk?





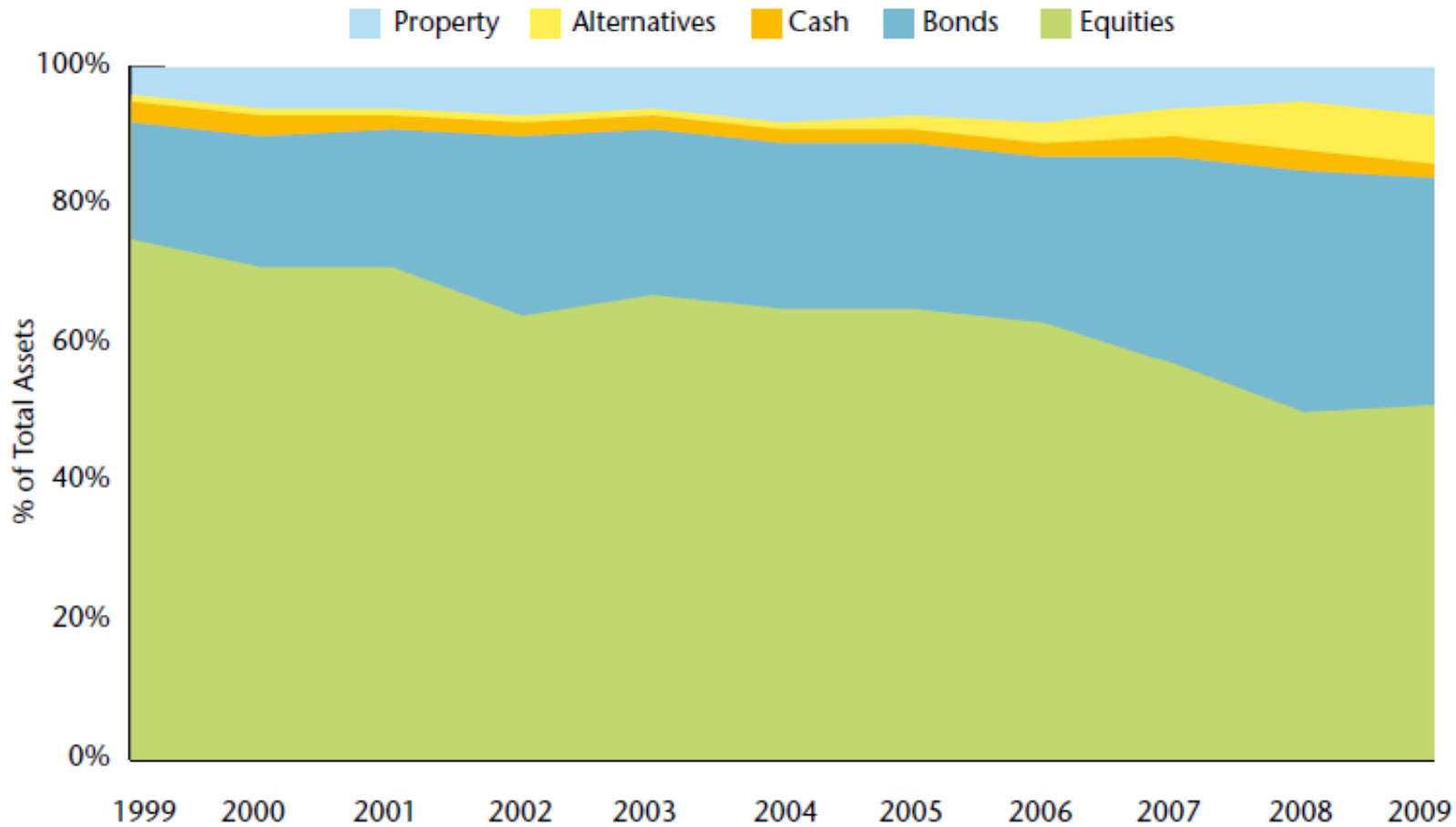
# Hedging Economic Risks versus Longevity Risk

What is your attitude to hedging?



# Asset Allocation Strategies are Changing

Weighted Average Asset Allocation for UK pension funds

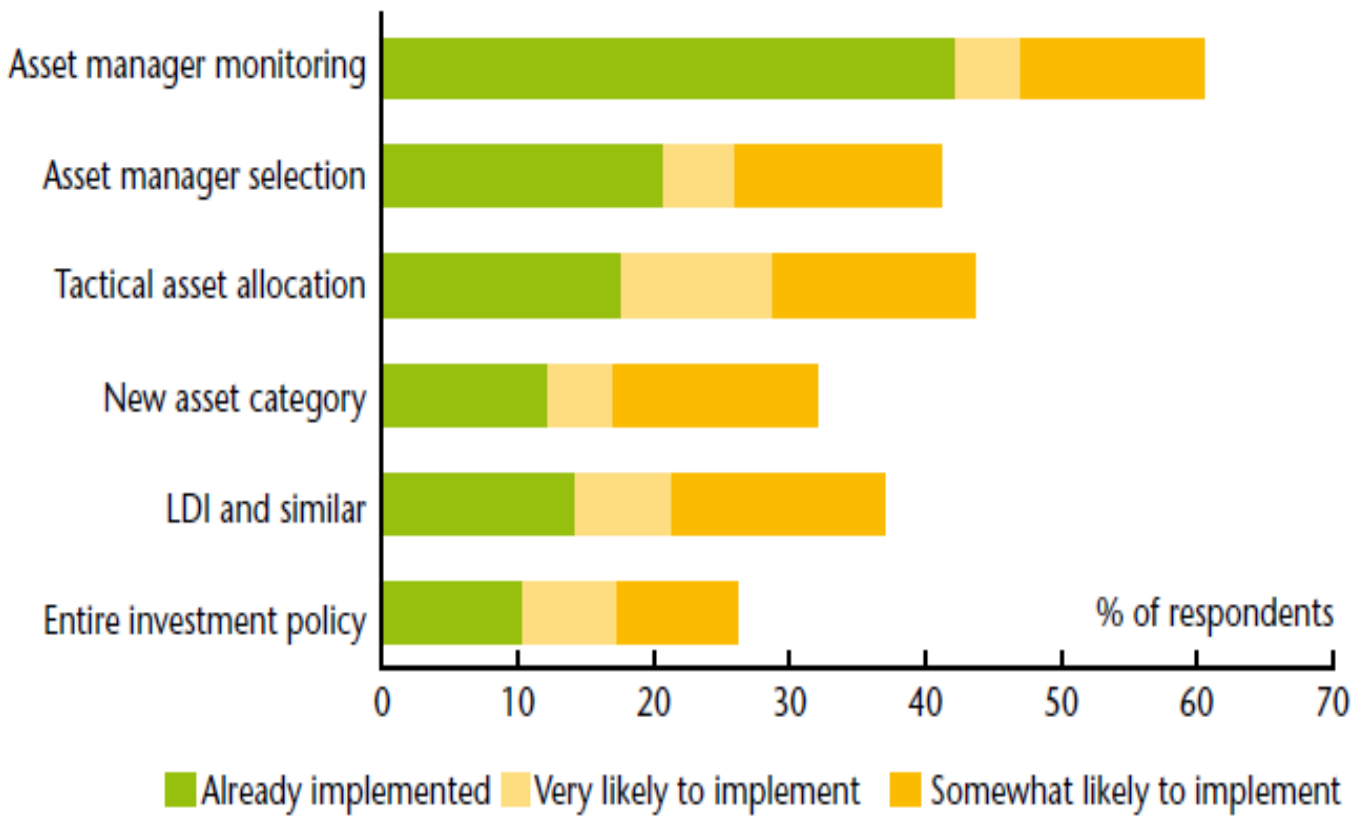


(Source: WM Performance Services)



# Third Party Assistance is Being More Sophisticated

What is your attitude to having your professional advisers implement aspects of your asset management?

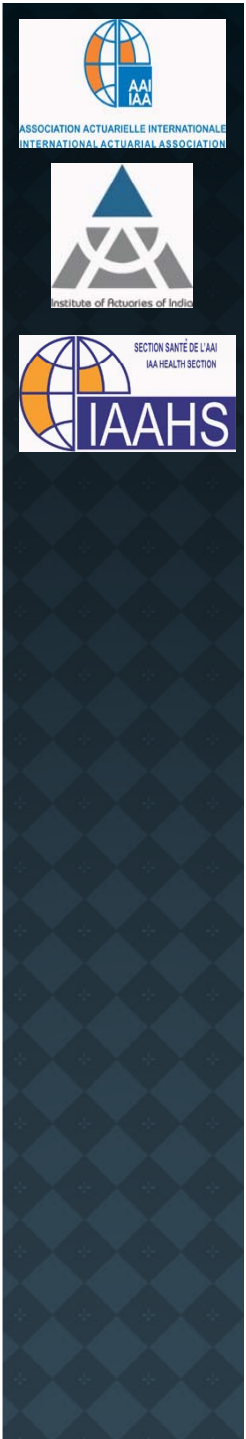
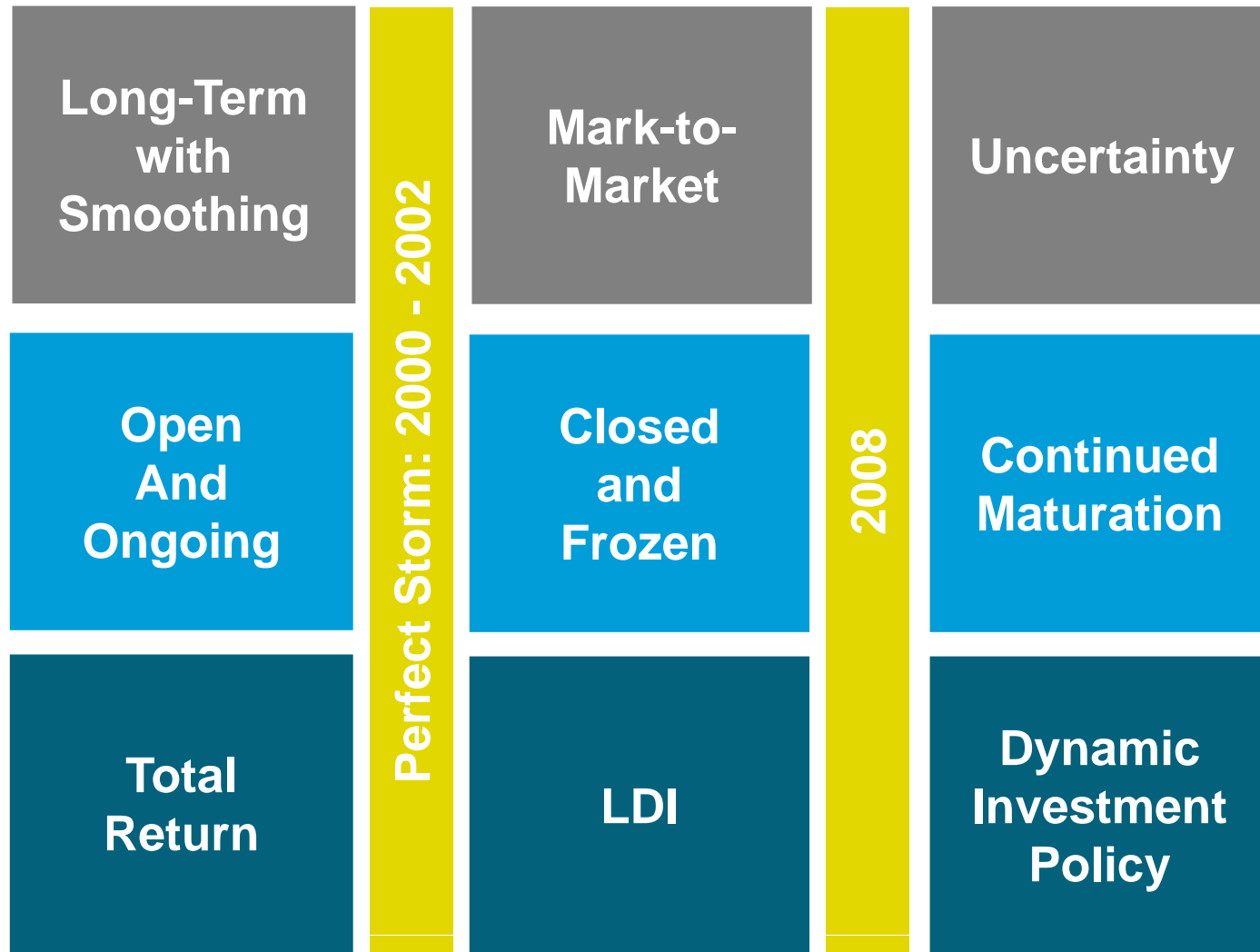


AAI  
IAA  
ASSOCIATION ACTUARIELLE INTERNATIONALE  
INTERNATIONAL ACTUARIAL ASSOCIATION

Institute of Actuaries of India

SECTION SANTÉ DE L'AAI  
IAA HEALTH SECTION  
IAAHS

# Pension Scheme Management: A Brief History



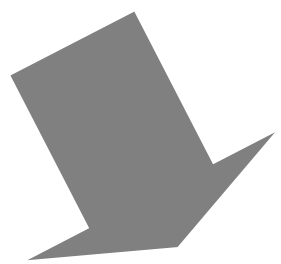
# Evolving Approach to Pension Scheme Management

## Goal-Oriented Investing

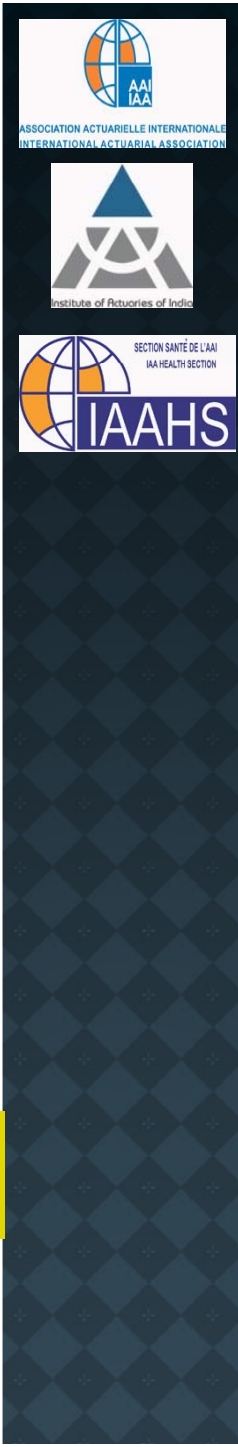
Scheme Maturity

Sponsor Profile

Funded Status

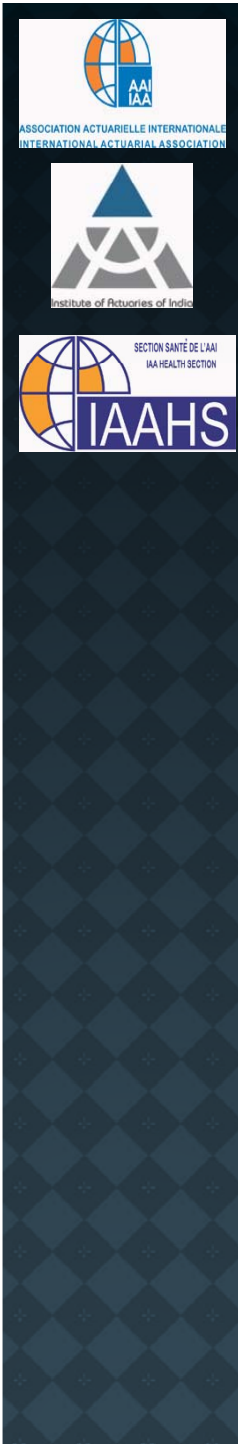
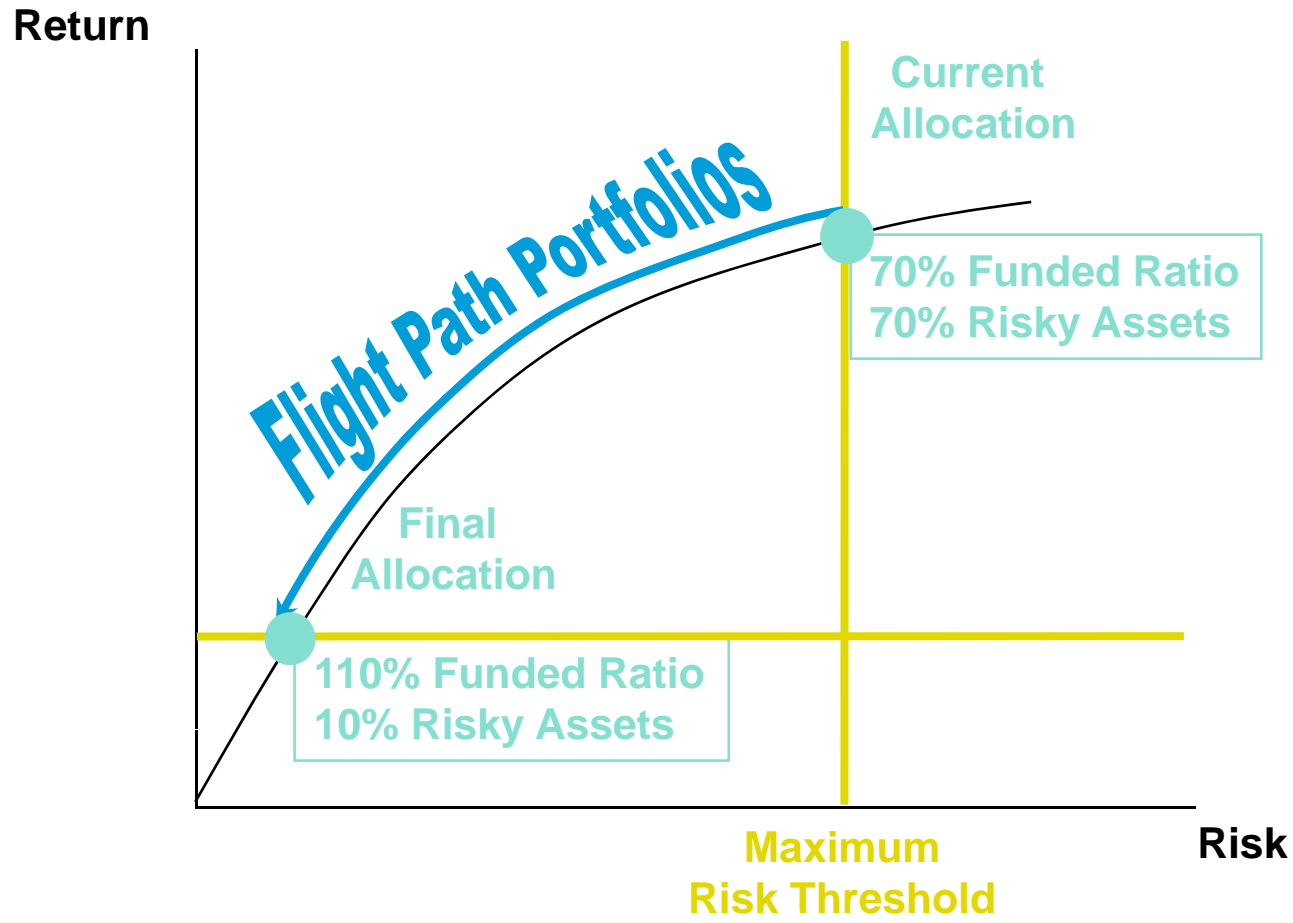


## Dynamic Investment Policy



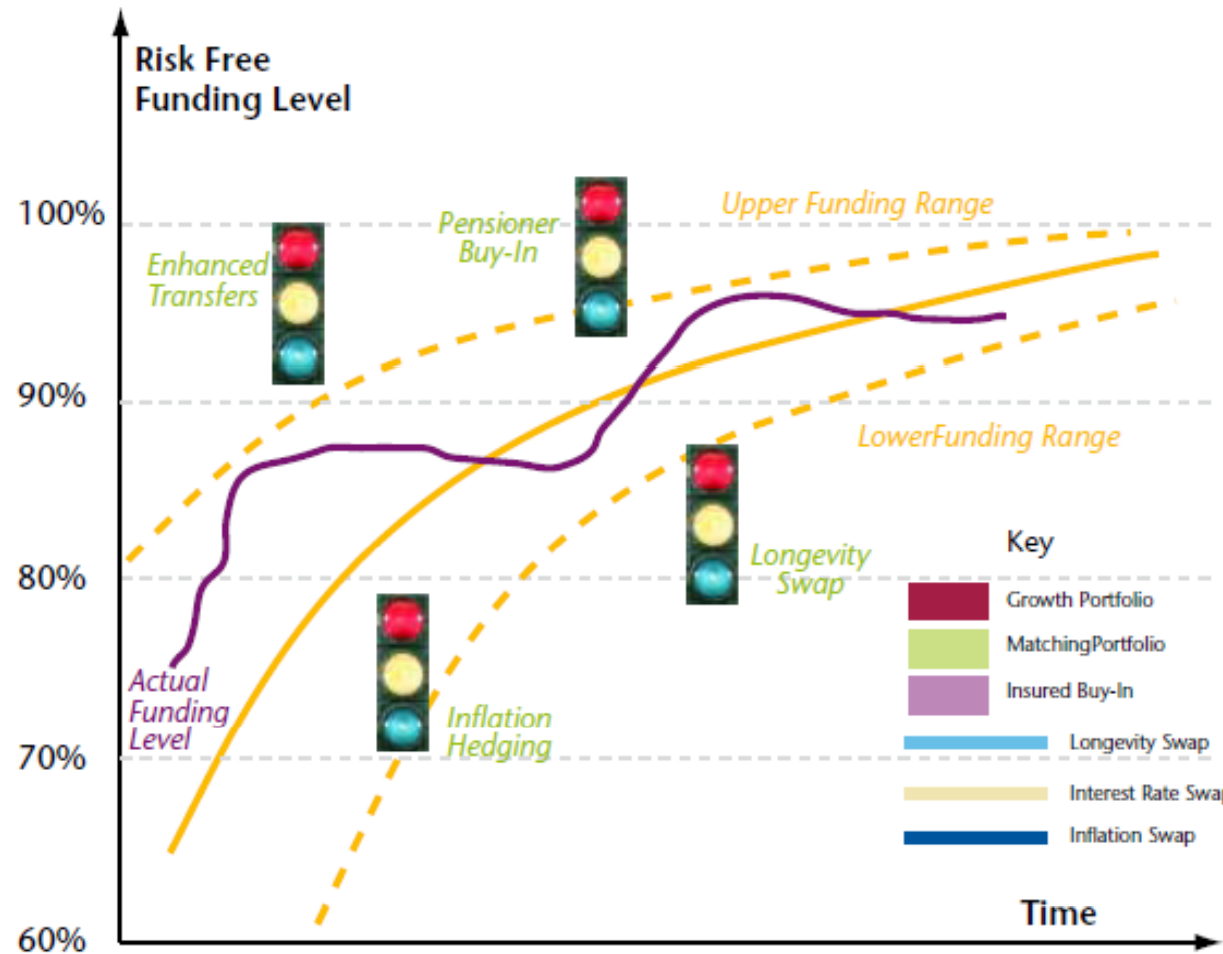


# Developing Flight Path Portfolios



# Example Path towards Mitigating Economic and Demographic Risk

Specimen Flightpath to illustrate de-risking

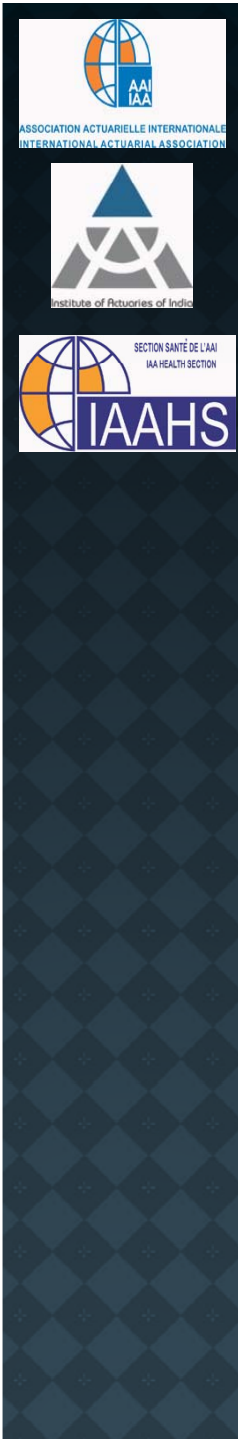
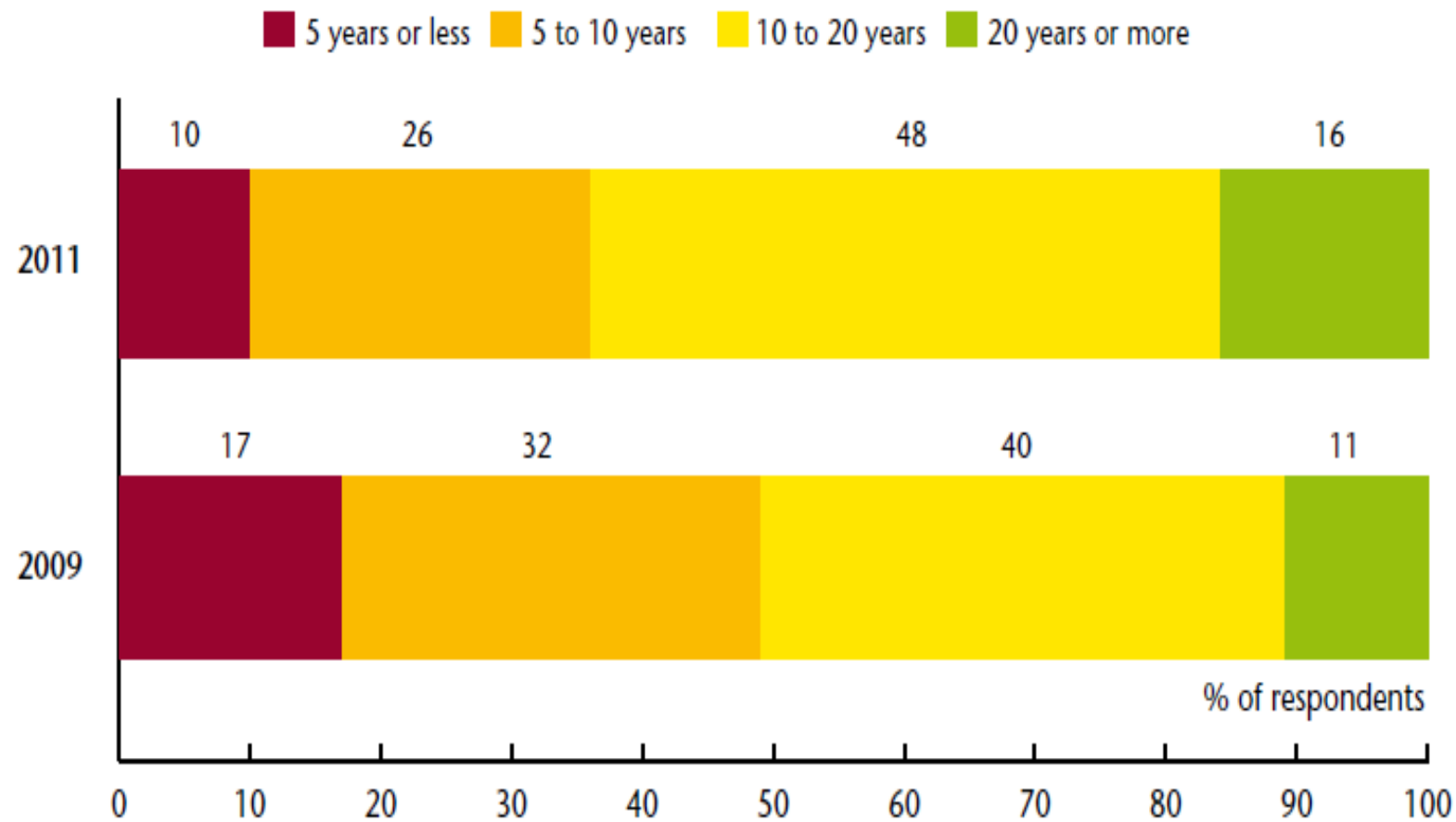


Typical Investment Policy



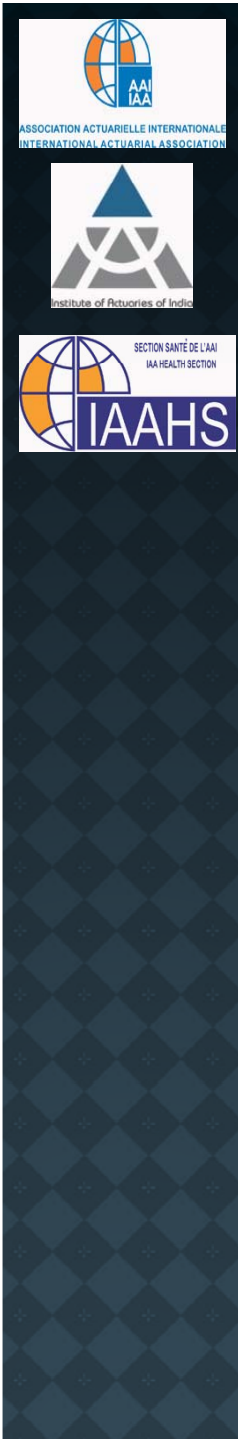
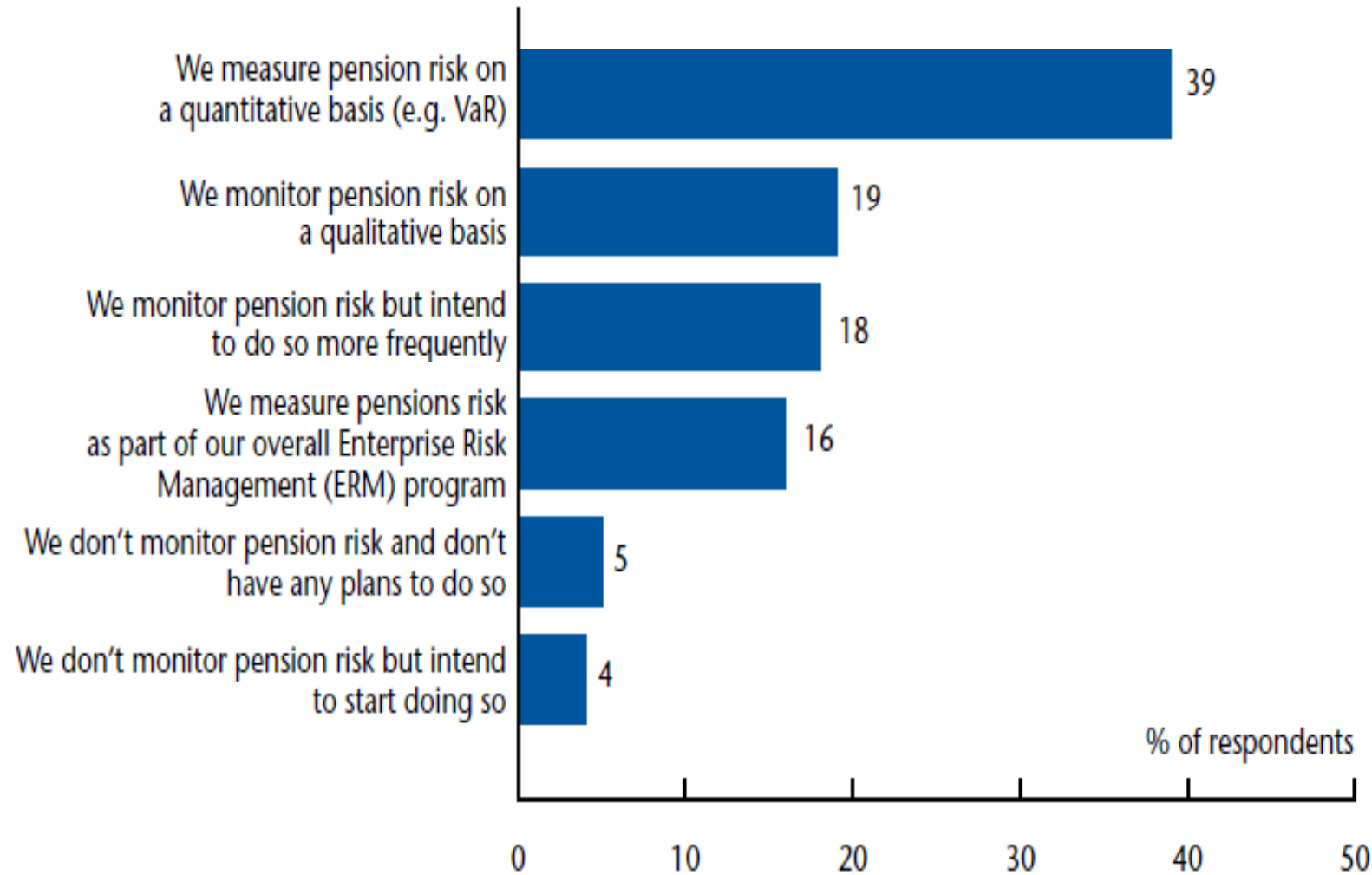
# Employers are Extending their Timelines to Fix the Problem

What is the timeframe to reach your long-term goal?



# Risk Monitoring is Also Evolving

How do you monitor the financial risks associated with your pension plan?



# Compliance and Operational Risks Are Not Neglected



		Less Oversight		More Oversight		
<b>Where are we going?</b>	<b>Strategy</b>	Local	Local	Regional	Corporate	Corporate
	<b>Global Advisory</b>	None	None	None	Review Only	Review and Approval
<b>How are we getting there?</b>	<b>Vendor Management</b>	Local	Local	Local	Local	Corporate
	<b>Administration</b>	Local	Local	Local	Regional	Corporate
	<b>Communication</b>	Local	Regional	Corporate Oversight	Corporate	Corporate
	<b>Insured Benefits/Pooling</b>	Local	Regional	Corporate	Corporate	Corporate
<b>How are we doing?</b>	<b>Financial Reporting</b>	Consolidation	Reactive Review	Proactive Guidance	Proactive Guidance	Proactive Guidance
	<b>Governance</b>	Local	Reporting to Corporate	Corporate	Corporate	Corporate
	<b>Compliance</b>	Local	Reporting to Corporate	Corporate	Corporate	Corporate
	<b>Financial and Risk Management</b>	Local	Local	Regional	Reporting to Corporate	Corporate





# Impact on Individuals - Life Cycle Might Evolve From This ...

**Work**

**Retirement**



... To This ...

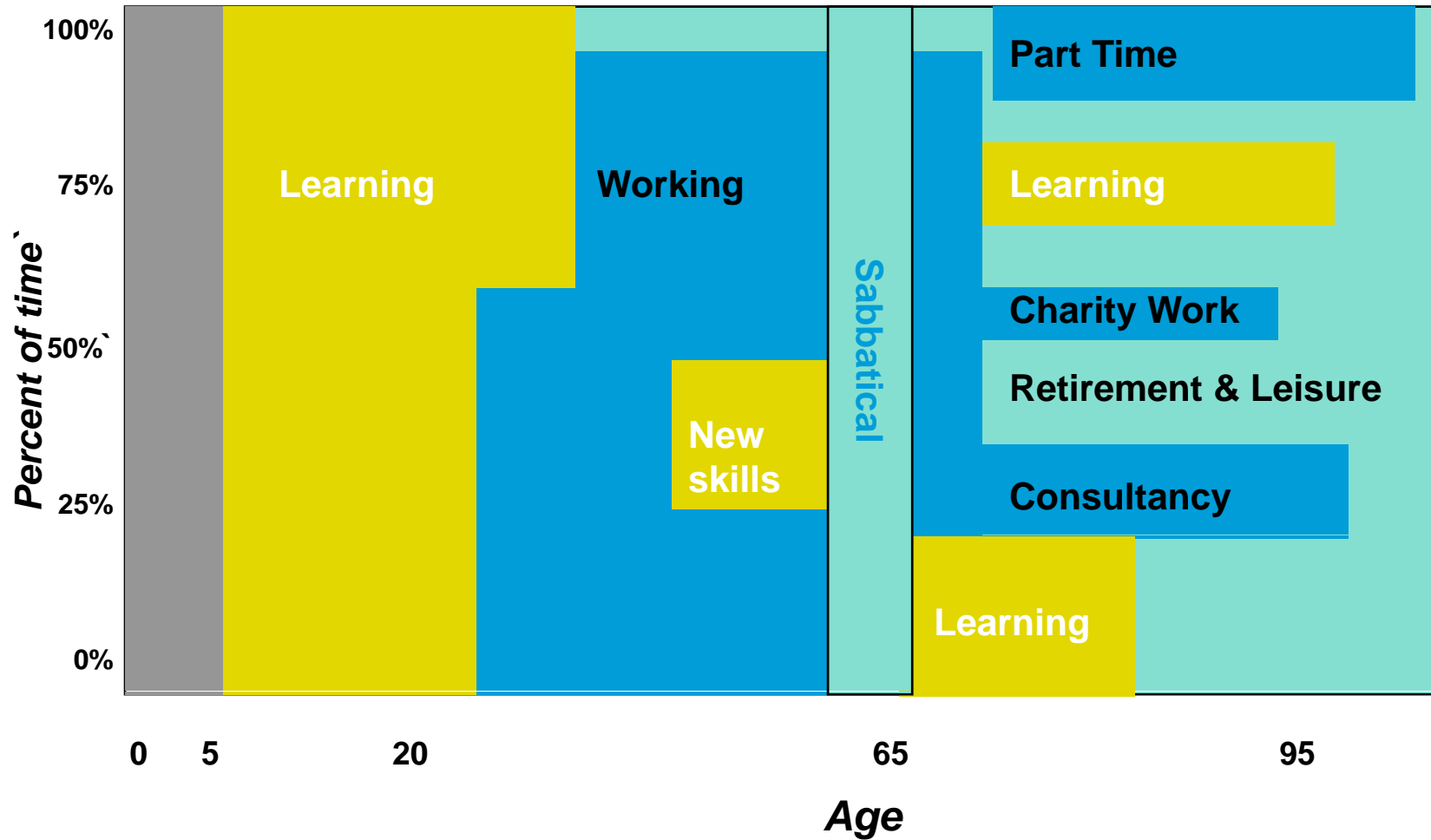
Work

Phasing

Full Retirement



# ... Or Even This?



AAI IAA  
ASSOCIATION ACTUARIELLE INTERNATIONALE  
INTERNATIONAL ACTUARIAL ASSOCIATION

Institute of Actuaries of India

SECTION SANTÉ DE L'AAI  
IAA HEALTH SECTION  
IAAHS

Thank You

