De-risking in pensions, insurance and other financial services: good or bad?

Presentation to the Hungarian Actuarial Society Fall School 2023

By Malcolm Kemp

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About the speaker: Malcolm Kemp

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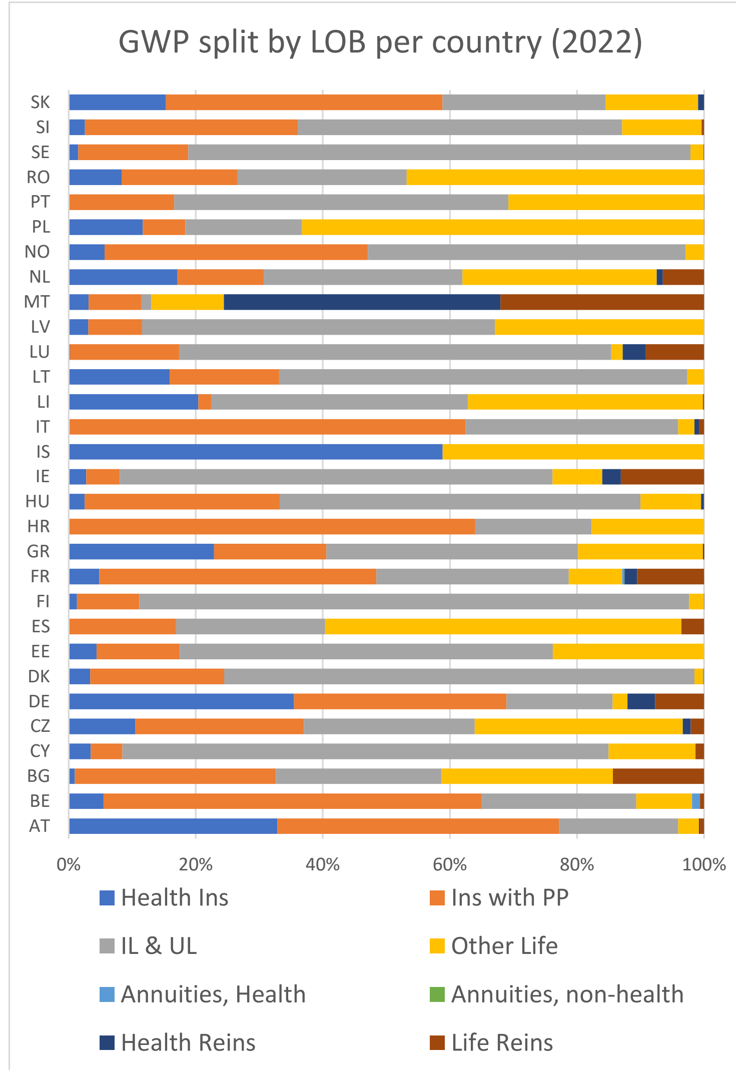
- *Until 2023 he was a member of the Advisory Scientific Committee of the European Systemic Risk Board and chairperson of the AAE's Risk Management Committee. Until 2021 he was the Chief Actuary (Actuarial Function Holder) for Threadneedle Pensions Limited and an Associate in Barnett Waddingham's insurance consulting practice.*

Agenda

- Background
- The IFoA’s Great Risk Transfer Campaign
- The regulatory agenda in Europe
- Good or bad? Some personal thoughts

Background

- Many apparent examples (to actuaries) of de-risking in financial services
  - E.g. apparent decline in provision of investment guarantees in life insurance (but only in some jurisdictions?)
  - E.g. shift from Defined Benefit (DB) to Defined Contribution (DC) private sector occupational pension provision (particularly USA and UK)
- Are these “problems” or “opportunities” and if so for whom? Are they trends we can influence?



Source: EIOPA

Business perspective

- Businesses generally exist to make a profit
  - For-profit businesses will want to take on risks only if adequately compensated
  - Successful businesses are generally the ones that maximise the trade-off between (upside) opportunity and (downside) risk over the longer-term
  - (Typical) economist view: ongoing exploration of this and other trade-offs likely to benefit society, promoting competition, business efficiencies etc.
- Not-for-profit enterprises (including charities), regulators and governments have other perspectives
  - Are pension funds “for profit”? How do social aspects of pensions affect the picture?
  - De-risking debate in actuarial circles more prominent in (private sector occupational) pensions than in insurance
  - Social security still mainly DB in developed countries

Customer / citizen perspective

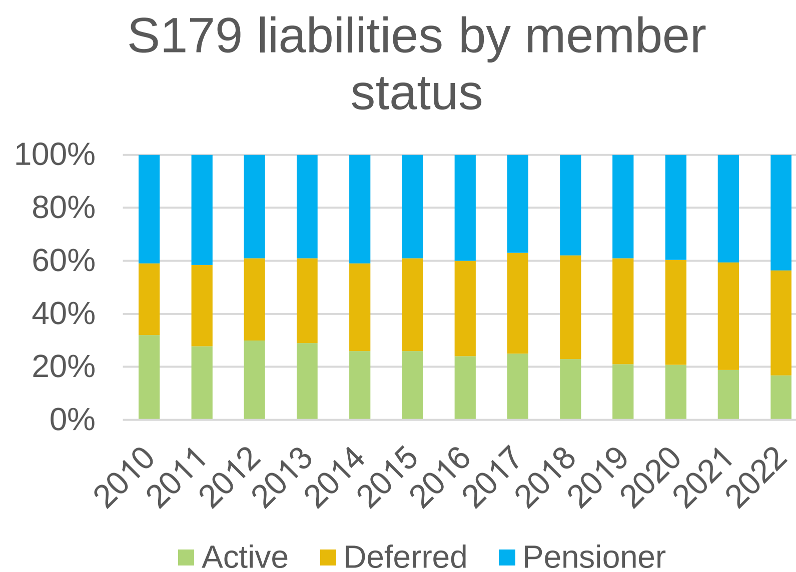
- Quality of financial services hard to assess, creating asymmetry and tension between businesses and customers
  - Regulation seeks to address this imbalance
- "Customers" can typically choose to buy a service (and/or from whom)
  - Introduces an **individualistic** (rather than **collectivist)** perspective
  - Unless part of the "contract" is more explicitly for the public good (e.g. public sector employment, educational, charity or other not-for-profit contexts)
- Broader societal trends
  - Influenced by what all citizens (including professionals) do day-to-day.
  - "*The objects of the Institute and Faculty of Actuaries shall be, in the public interest, to advance all matters relevant to actuarial science and its application and to regulate and promote the actuarial profession*"

Occupational pensions (UK)

- Long history, especially in public / quasi-public sector
  - Roman military pensions, pensions for Royal Navy personal (1590, 1666, 1836), Bank of England (1739) and East India Company (by 1750)
  - C.f. first universal state (DB) pension provision introduced by Bismarck in 1880s
- Heyday of UK private sector DB occupational pension provision arguably in 1960s and 1970s
  - Separate schemes set up to protect against corporate failure
  - Discretionary inflation protection, lower life expectancies, greater tax benefits, helpful to corporates wanting to restructure
  - Eventual push for better pre-retirement vesting of benefits reduced effective amount of discretion

UK DB pension scheme liabilities: stylised description

- Most (accrued) UK occupational pension provision is still DB
  - But most DB schemes maturing and now closed to new entrants and in many cases also to new accrual. At end 2019 DC members (22.4m) outnumbered funded DB and hybrid scheme members (18.3m)
- Reduced link between scheme and Human Resource factors (except in public sector!)
  - Commonly viewed in private sector as a "legacy" problem, involving a "journey" towards buy-out of the liabilities (typically with an insurer)



Source: UK Pension Protection Fund Purple Book 2022 (Fig 4.14)

Weighted average UK DB asset allocations

Year End (31 Mar)	Equities	Bonds	Property	Cash and deposits	Insurance policies	Hedge funds*	Annuities *	Misc
2006	61.1%	28.3%	4.3%	2.3%	0.9%	n/a	n/a	3.1%
2011	41.1%	40.1%	4.4%	4.1%	1.6%	2.4%	n/a	6.3%
2012	38.5%	43.2%	4.9%	5.1%	0.2%	4.5%	n/a	3.6%
2013	35.1%	44.8%	4.7%	6.7%	0.1%	5.2%	n/a	3.5%
2014	35.0%	44.1%	4.6%	6.1%	0.1%	5.8%	n/a	4.3%
2015	33.0%	47.7%	4.9%	3.5%	0.1%	6.1%	n/a	4.7%
2016	30.3%	51.3%	4.8%	3.0%	0.1%	6.6%	2.1%	1.7%
2017	29.0%	55.7%	5.3%	-0.9%	0.1%	6.7%	3.3%	0.8%
2018	27.0%	59.0%	4.8%	-2.5%	0.1%	7.0%	3.4%	1.2%
2019	24.0%	62.8%	5.0%	-4.4%	0.3%	7.4%	4.0%	1.0%
2020	20.4%	69.2%	4.9%	-7.2%	0.1%	6.8%	5.0%	0.8%
2021	19.0%	72.0%	4.7%	-9.5%	0.1%	6.1%	6.6%	0.9%
2022	19.5%	71.6%	4.6%	-8.8%	0.1%	5.2%	6.8%	1.0%

Source: UK Pension Protection Fund Purple Book 2022 (Fig 7.2) Weighted average asset allocation in total assets. Purple book notes that “*The weighted average proportion of assets held in cash and deposits being negative represents a number of large schemes with significant negative cash holdings which are likely to be related to investments such as swaps and repurchase agreements*”. Fig 7.4 includes split of bonds (2022): 22.0% govt fixed, 30.2% corp fixed, 47.8% index-linked. Fig 7.5 includes split of equities (2022): 9.9% UK quoted, 68.6% Overseas quoted, 21.5% unquoted/private (corresponding for 2010: 40.1%, 55.3% and 4.4%)

The IFoA's Great Risk Transfer Campaign

- Institute and Faculty of Actuaries launched campaign in 2020. Included:
  - Extensive engagement with stakeholders (global although with UK bias)
  - Interim Report (2020)
  - Final Report (2021)

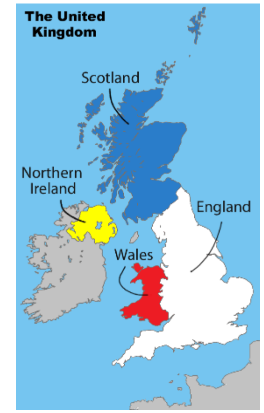
Source: IFoA (2023) [Great Risk Transfer]

IFoA Interim report: surveying the territory

- Campaign aimed for a broad focus. Recognised that:
  - Transfer of risk not necessarily contractual or even formal
  - Balance of responsibility for risk likely to reflect societal emphasis on individualistic or collective values
- Common trend over recent decades in developed economies towards increasing the risk burden on individuals. Campaign focused on a "Great Risk Transfer" occurring across four distinct areas:
  - Pensions
  - Work
  - Health
  - Insurance

… the (private sector) pensions landscape

- Picture for UK
  - Closure of DB schemes in favour of DC arrangements
  - “Freedom and choice”: in UK, pensioners allowed to use drawdown rather than annuitisation for DC pots
  - State pension promises seen as “unaffordable” for society, hence gradual wind-down
- Elsewhere, similar trends observed, but adapted to relevant cultural and demographic factors. E.g. India:
  - New simplified tax regime has reduced tax incentives for pension saving and retirement planning
  - Working population a high proportion of total population. A culture of taking care of parents in later life
- Poor financial literacy (in both UK and India)



Source: authors unknown

… transition from DB to DC

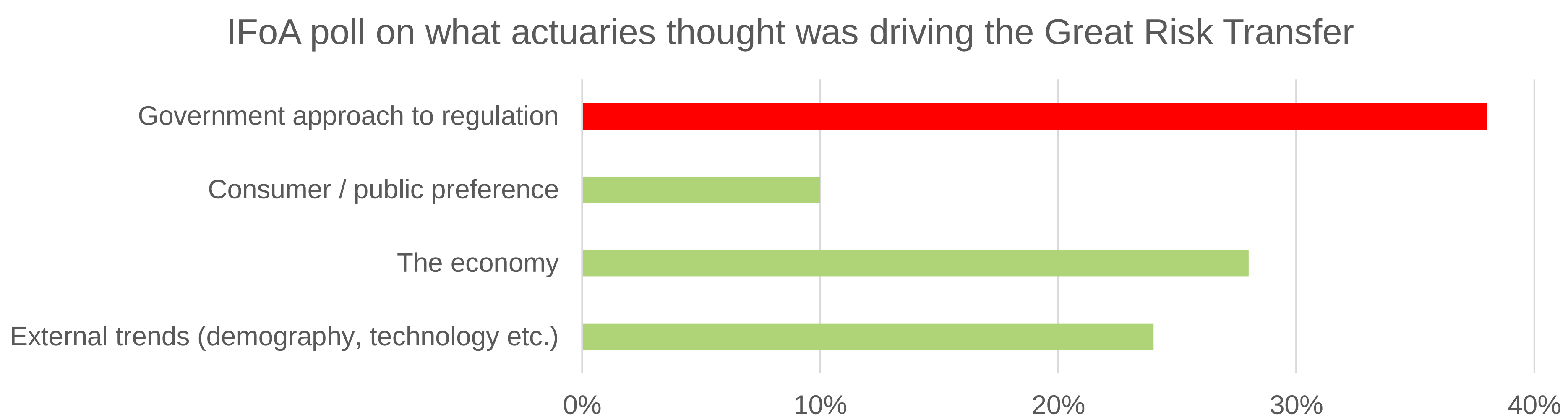
- Some advantages, e.g.
  - More flexible retirement
  - Better protection for those who move jobs frequently
- Transfers longevity, investment and inflation risk to employee/customer
  - >90% invested in default investment options, typically for bulk of working life
- Typically, lower employer contributions
  - Individuals seem to undervalue pension benefits
  - Creates issues when employees are offered option to transfer from DB to DC

IFoA Interim report: other topics (UK)

- Social care
  - Apparent lack of understanding of financial realities, E.g. 2018 Local Government Report: "*44% of people think that social care is provided by the NHS and 28% think that it is free at the point of access*"
- Insurance and investment
  - More granular pricing of protection products (e.g. smoker versus non-smoker rates, pricing of non-life contracts). Potentially creates protection gaps
  - Shift from with-profits (i.e. participating) business to unit-linked from 1980s onwards. Investment guarantees now rarely offered. Some products also transfer longevity risk. More explicit costing of investment advice
- Employment
  - Fringe benefits swapped for cash from 1980s onwards. Shift from employment to self-employment, zero-hours contracts, gig economy. But "flexible" for business!

What is thought to be driving the Great Risk Transfer

- Poll suggests actuaries often think **push** rather than **pull** factors
  - "*Push*": e.g. stricter solvency requirements (supposedly) making guarantees prohibitively expensive
  - "*Pull*", e.g. customer preference for flexibility, online access, societal trends in individualism vs collectivism



IFoA Interim report: harms, benefits, possible solutions

- Pensions
  - Lack of safety net for DC members, who need to self-insure longevity risk
  - Significant gender differences: woman aged 65 to 69 has average pension wealth of £35,700 (roughly a fifth of a man of her age)
  - Interim proposals included (1) Higher auto-enrolment contributions, (2) improved pensions dashboards, (3) promoting collective DC, (4) simplifying tax, (4) requiring advice before switching benefit types, (5) promoting more general publicly supported pensions advice, (6) introducing ‘safe harbours’ and other common advice frameworks
- Insurance
  - Risk transfer encourages insurance companies to compete for the least risky clients. Those most at need of insurance may be those most priced out of market
  - Interim proposals included (1) reduce tax on annuities, (2) explore FloodRe models, (3) remove regulatory barriers supposedly present in Solvency II

IFoA Final report

- Objective: to change financial system to make it work better for consumers and society
  - IFoA believes this is more pragmatic than attempting to force changes in consumer behaviour
- Proposals: Grouped under two headings
  - Rebalancing risks by shifting prime responsibility back towards institutions
  - Helping consumers manage financial risk through good decision-making

Rebalancing risks

Area	Proposal (summary)
CDC schemes	Government action to promote attractions of collective DC to employers
Decumulation pathways	Introduce default decumulation pathways for all pension arrangements
Access to insurance cover	Set minimum levels of insurance coverage needed by all (including low-income families)
Learning from 'Re' schemes	IFoA to promote research into what makes model like FloodRe successful as a means of addressing protection gaps
DB scheme regulation	The 'bespoke' framework in The Pensions Regulators DB funding code should genuinely enable consideration of each case on its own merits
Post-Brexit insurance regulation	HM Treasury to use UK Solvency II Review to enable and encourage life insurers to offer affordable guarantees

Helping consumers manage financial risks through good decision-making

Area	Proposal (summary)
Pension Wise	Target significant increase in take-up (of this free-to-access public-supported pension advice service) prior to individuals accessing their pension benefits
Pension dashboards	Prioritise consistent estimation and presentation of retirement income
Risk transfer incentive exercises	Introduce regulation or guidance to strengthen consumer protection in risk transfer incentive exercises
Adequacy of pension contribution rates	Better public messaging that auto-enrolment minima unlikely to deliver an adequate income in retirement

The regulatory agenda in Europe

- Seems less focused on de-risking than UK actuarial profession
  - Trend away from participating towards unit-linked less strong vs. UK
  - Bulk of occupational pension provision is in NL and is often Collective DC in nature (although IE provision has some similarities with UK)
- Some emphasis on protection gaps
- Many other topics on agenda, e.g.
  - Financial stability (including financial stability implications if critical functions impaired, e.g. DORA)
  - Digitalisation

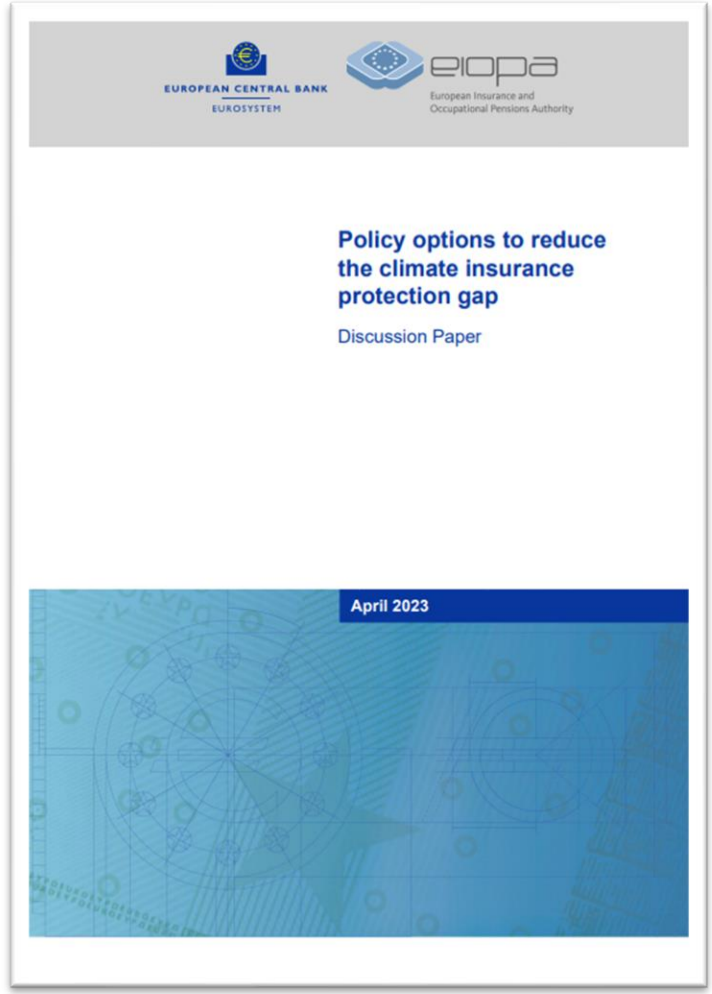
EIOPA 2023-25 work plan

1. Contribute to building up sustainable insurance and pensions, including by addressing protection gaps, for the benefit of EU citizens and businesses
2. Support the supervisory community and industry to mitigate the risks and seize the opportunities of the digital transformation, including by further promoting data driven culture
3. Promote sound, efficient and consistent prudential and conduct supervision throughout Europe, particularly in view of increased cross-border business
4. Deliver high-quality advice and other policy work taking into account changing and growing needs of society as well as the effects of new horizontal regulation
5. Further enhance financial stability, with particular focus on the analysis of financial sector risks and vulnerabilities, and emerging threats
6. Be a model EU supervisory authority setting global high standards of corporate governance, and fostering efficient cooperation within the EU and globally

Source: EIOPA (2023) Work programme 2023-2025

Climate insurance protection gaps

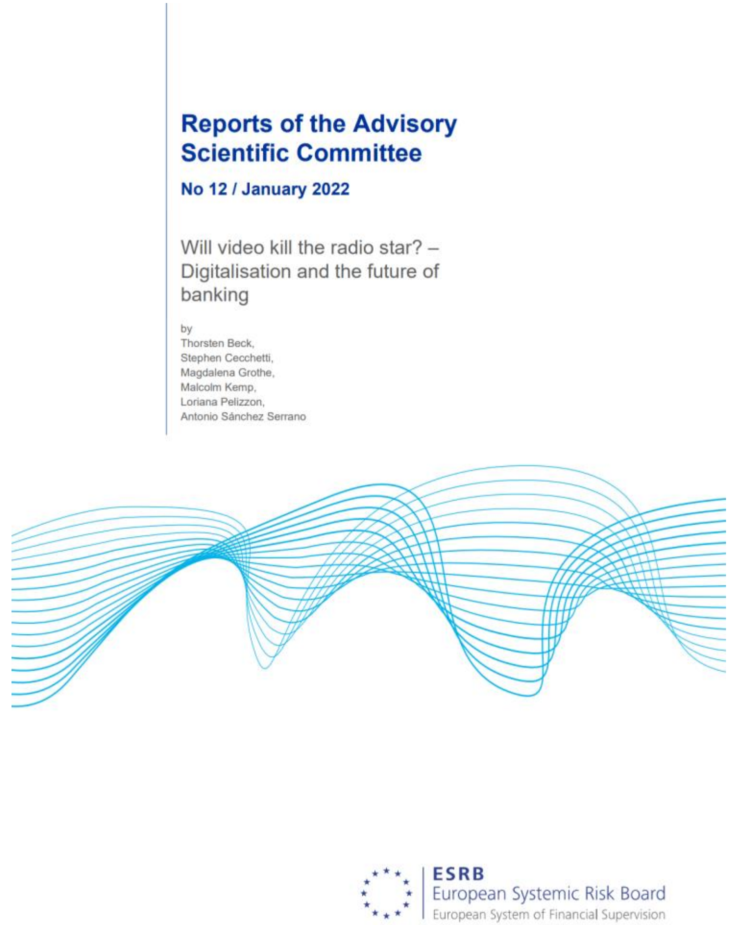
- Insurance mechanisms seem under-utilised
  - Only one-quarter of risks covered at present
  - Could get larger as extreme weather events become more frequent
- Ideas in Discussion Paper try to:
  - Help provide prompt pay-outs
  - Incentivise risk mitigation and adaptation
  - Be complementary to existing coverage
  - Share costs and responsibilities across stakeholders
  - Lower share of costs borne by public sector over longer-term



See [Policy options to reduce the climate insurance protection gap (europa.eu)]

Financial stability considerations

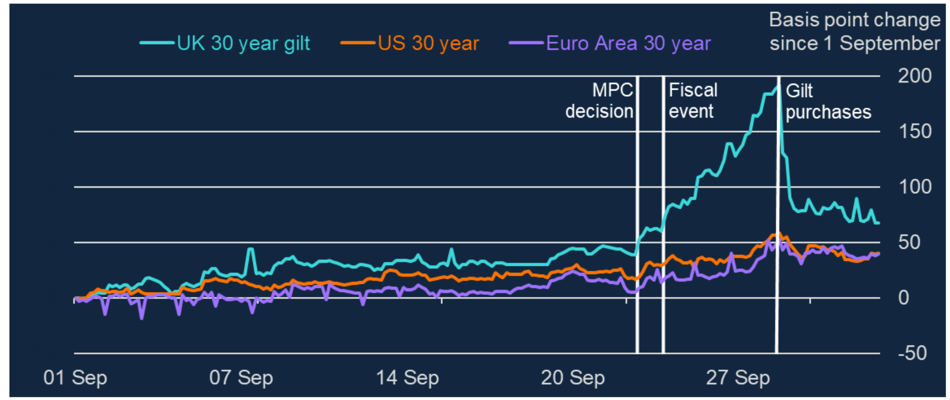
- Gaining importance in regulatory community
- An umbrella for many topics, e.g.
  - Covid-19 responses (including capital policies and restrictions on dividend distributions)
  - Systemically important ("critical") functions
  - Interconnections with wider financial system and economy more broadly
  - Future-proofing of financial system and making it work for society
  - Liquidity issues

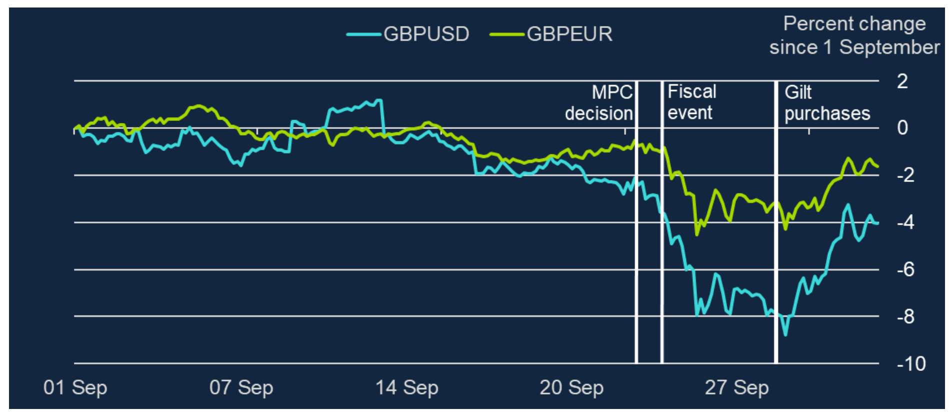


Source: ESRB (2022)

Financial stability and pensions

- Interest rates have risen significantly since Great Risk Transfer campaign
  - UK Liability Driven Investment (LDI) stresses highlighted pension system interconnectivity with wider financial system
  - Sep 2022 fiscal event caused large movement in long-dated gilt yields / prices. On financial stability grounds, Bank of England reversed plan to start selling (long-dated) fixed interest gilts. Instead introduced liquidity backstop for this part of market (later extended to include long-dated index-linked gilts and rolled into a more permanent facility





Motivation given by Bank of England

- Unprecedented speed and scale of movements in gilt yields
  - 2 daily increases of > 35 bp (biggest before then back to 2000 was 29 bp), over 4-day period > 2x largest move since 2000 (the ‘dash for cash’ in 2020)
- Rise in yields caused net asset value (NAV) of LDI (pooled) funds to fall significantly & their leverage to increase significantly, leading to margin calls
  - Funds needed to rebalance, selling gilts into an illiquid market, or ask their DB pension scheme investors to provide more capital
  - Speed and scale outpaced ability of investors to provide new capital – particularly pooled LDI funds given the large number of smaller investors involved
  - Market incapable of digesting scale of gilt sales by itself. Risk if NAV fell too far that derivative and repo positions would be closed out creating further selling pressure
  - BoE judged that if hadn’t intervened then many pooled LDI funds would have been left with negative net asset value, creating self-reinforcing falls in asset prices

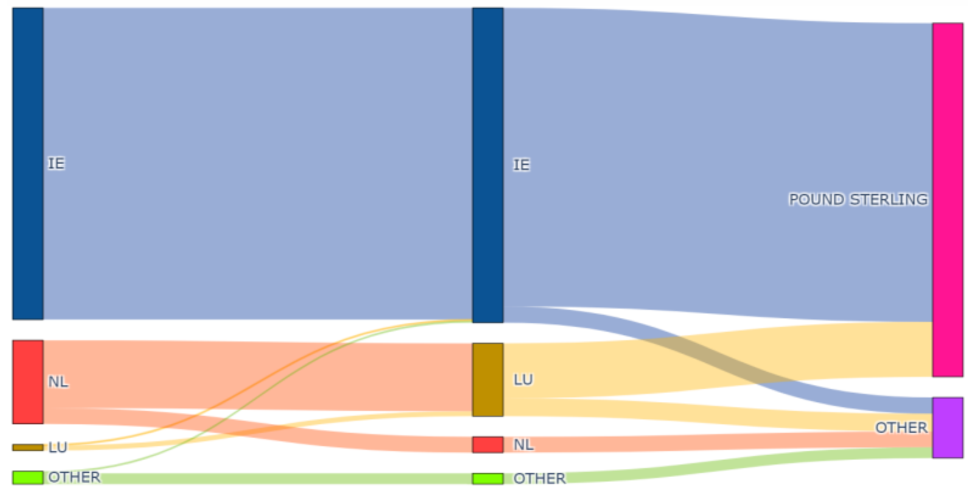
LDI Strategies

- A “de-risking” strategy by pension funds, not so low risk for the government
- DB schemes dominated long-end of UK government bond market:
  - £1.86tn assets, £1.80tn liabilities on a “funding” basis as at Dec 2021 (Source: PwC)
  - C.f. £2.1tn total nominal amount of outstanding UK govt debt end Dec 2021 (including inflation uplift for index-linked gilts, source UK DMO), only £0.61tn long dated fixed. Between 2009 and 2021 BoE had bought £0.9 tn of govt. bonds (quantitative easing)
  - Investing just in gilts excludes return-seeking assets, so likely wouldn’t help with eventual aim of improving buy-out funding level
- (Leveraged) LDI pooled funds exhibit extra risks versus a corresponding directly implemented (segregated) LDI strategy
  - BoE justification draws heavily on specific risks from pooled LDI funds, including risk of forced position unwind if NAV fell below zero creating selling spiral

ESRB NBFI Risk Monitor 2022

- Most LDI pooled funds used by UK pension funds were EU-denominated AIFs
  - NAV of EU LDI funds c. EUR 250bn at end 2021, mostly GBP denominated
  - Assets of pooled, UK-owned LDI funds c. EUR 230bn at end 2021
- ESRB reverse stress test analysis suggested abrupt rise in interest rates of 41 bp (144 bp) would exhaust a median LDI fund's cash (cash and Money Market Fund) resources

Links between domiciles of LDI AIF managers, AIFs and AIF base currency



Source: ESRB (2023) EU Non-bank Financial Intermediation Risk Monitor 2023 No 8 / June 2023 (ultimately AIFMD data). Note: The first column represents the AIF manager domicile, the second column shows the AIF domicile and the third column denotes the base currency. The width of the link between columns represents the sum of net asset values. Data are for the end of 2021

The (UK) Pensions Regulator

- New guidance published 24 April 2023
  - Re-emphasised **need to review investment strategy regularly** and when pension scheme's circumstances or market conditions change significantly
- Trustees to consider
  - **Nature of liabilities and stance on hedging**. Expected payments relative to expected income, and confidence in ability to meet payment obligations even if LDI arrangements are put under stress. Expected return on investments, types and levels of risk
  - **Collateral and cash call requirements of LDI arrangements** and availability and liquidity of assets or other arrangements for meeting these calls
  - Risk that there might be **other players with similar positions** facing similar simultaneous collateral and cash calls – **a classic financial stability challenge**
- More explicit stress testing (and/or reverse stress testing) of collateral resilience

Good or bad? Some personal thoughts

- Some further thoughts on these de-risking trends from the perspective of:
  - Society
  - Policymakers
  - Insurers
  - Other
- Views are personal (inevitably so!)
  - My career has ranged from pensions, insurance and investment consulting to asset management, sometimes inside the regulatory community, mostly outside

Society

- More focus on risk management nearly everywhere
  - E.g. risk assessments and risk registers in daily life (education, play, …) and across business / government
- But society's entrepreneurial spirit still strong
  - E.g. continued technological innovation, AI, green transition, …
- Actuarial profession keen to promote actuarial involvement in risk management
  - Hard then to fault our clients for exploring de-risking
- Is the main issue the risk of socially undesirable outcomes in our own area of expertise?

By Prompt by JPxG, model by Boris Dayma, upscaler by Xintao Wang, Liangbin Xie et al. - https://github.com/borisdayma/dalle-mini/ BSD 3-Clause, Apache License 2.0, https://commons.wikimedia.org/w/index.php?curid=118813978

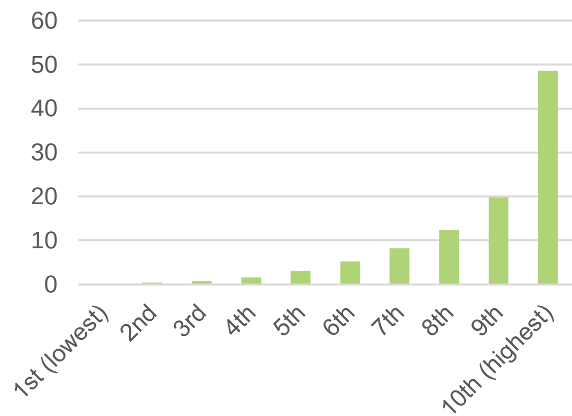
Policymakers (1)

- Have many competing interests (and sometimes competing policymakers!)
  - Interested in protecting the public purse and tend to give higher priority to financial stability and systemic risk than the insurance and pension industry. LDI episode a reminder that risk management by industry may not be ideal for others
  - Insurance and pensions industries seem good at lobbying (versus e.g. the banking sector)
  - Likely sceptical about ability to swim against the tide of social trends
- Tax angles add complexity
  - E.g. promoting additional tax breaks for (UK) annuitants would reverse prior trends and potentially take away resources from other needs such as social care and health provision. Individuals impact tend to be richer (although also then more likely to vote!)
  - Tax an important consideration with life insurance and pensions

Policymakers (2)

- How representative are our usual customers?
  - UK poorest decile: wealth mostly in physical items (e.g. household possessions and vehicles). <50% own property with positive equity or have any form of private pension
  - UK wealthiest decile: mostly positive bank balances (median net financial wealth £90,000), own property (median £310,000) and have a private pension pot (median £627,000). On average, 50% of their wealth in pensions and 32% in property.

Percentage of total wealth held by individuals in each individual wealth decile, Great Britain, April 2018 to March 2020



- Likely importance of:
  - **(Publicly organized) social security programmes**
  - **(Private) savings that do not involve pensions or life insurance**

Source: UK Office of National Statistics

Policymakers (3)

- Policymakers (and regulators) also join in creative exploration of (upside) opportunity versus (downside) risk
  - E.g. regulatory “sandboxes”
- From a business perspective, if want to be nimble, likely pays to
  - Follow closely regulatory agendas and apparent direction of travel
  - Leverage digitalisation: improves efficiency
  - Although need to consider risk of exclusion for less digitally savvy

Insurers (1)

- Insurers are in the business of risk management (as are banks, …!) so de-risking trends impacting them interact with their profit motive
  - If we believe that economic experimentation and creative destruction are ultimately good for society in the long-term then hard to fault insurers if they find it beneficial to offload risks to their customers
  - Particularly if the risks are expensive and undervalued by customers
- Ideally:
  - Ensure customers understand the risk transfers involved (this is also a regulatory trend!)
  - Encourage financial literacy
  - Keep products simple and transparent

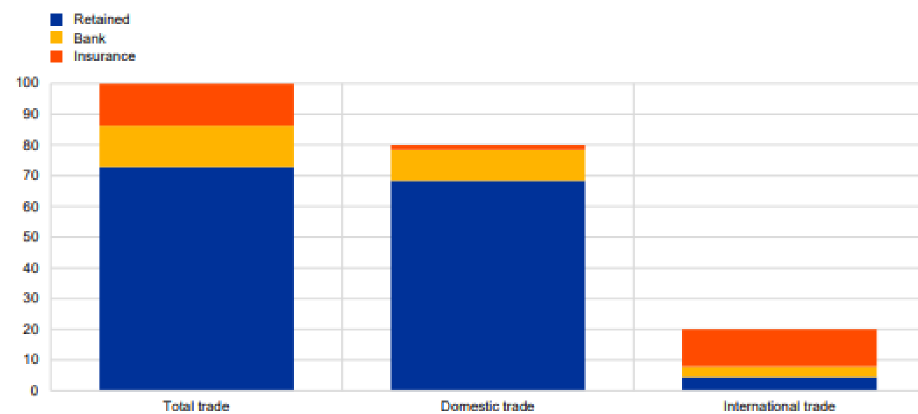
Insurers (2)

- Structure appropriate safety nets for those who can’t afford or can’t access basic insurance coverage
  - Might involve mandatory coverage
- Is (private) insurance always the best solution for customers?
  - Self-insurance or other financial products may be appropriate alternatives
  - … which could disintermediate actuaries or firms that actuaries work for
  - Some risks too large to be shouldered just by private sector (e.g. FloodRe)

Chart 2

Ultimate risk exposure to trade credit in terms of total trade receivables

(percentages)



Sources: Boissay, Patel and Shin (2020) and sources therein
Notes: The columns for international and domestic trade together amount to 100. As some of the banks’ risk exposure to trade receivables is passed on to insurers; the graph shows risk exposures ultimately born by banks and insurers.

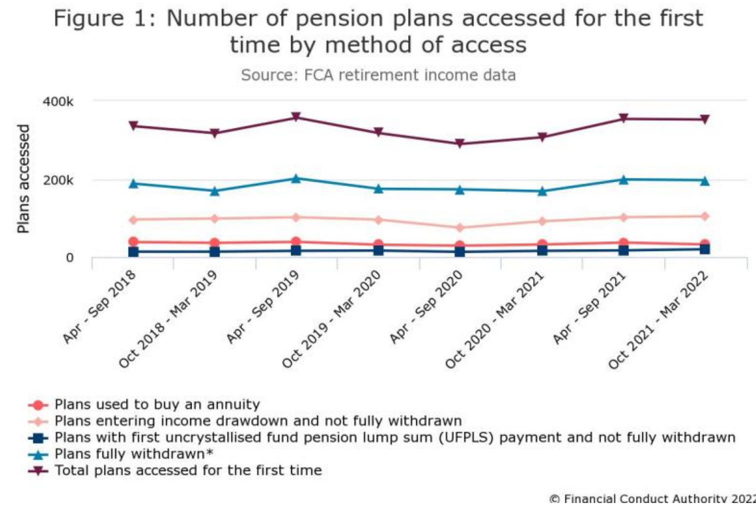
Source: ESRB (2022) Issues note on aspects of trade credit insurance

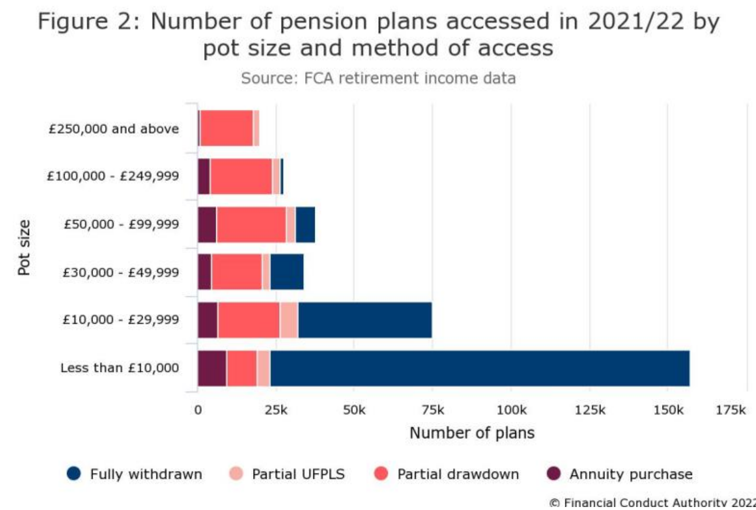
Other (1)

- Can regulation really make guarantees more affordable?
  - Monetary guarantees are inherently expensive to provide in a low interest rate / low inflation world
  - If customers valued them sufficiently then they would already be widely provided
- Capital regulation is generally aiming to contain risk of failure to address asymmetry between an undertaking and its client
  - Ideally agnostic regarding source of failure, why single out guarantees?
- Pension schemes and insurers seen by governments as a ready source of “patient capital”, e.g. for long-term infrastructure needs
  - Most likely to be sources of patient **risk** capital if liabilities relatively unconstrained
  - Can we adapt participating business to better cope with low interest rates?
  - Does collective DC (‘CDC’) (or encouraging less liquid assets in normal DC) help?

Other (2)

- How strong is the argument for annuitisation?
  - Most people who might choose to buy annuities likely to be relatively well-off. Much of their wealth may not be in pension schemes. Likely anyway to want to give away some of it to dependents/charities
- Perhaps this is partly what CDC is aiming for? But many types of CDC
  - Which type(s) of risk is the CDC scheme pooling (longevity risk, investment risk, …) and how?





Source: FCA (2023). [Retirement income market data 2021/22 | FCA]

Other (3)

- Decumulation becomes more like asset management if pathway typically does not include purchase of an annuity
- Asset management mindset can diverge from typical actuarial mindset
  - Generally, portfolios are marked-to-market where practical
  - Makes valuation relatively transparent, if often rather visibly volatile
  - Guarantees rarely offered (by traditional fund managers), although are possible using e.g. derivatives
  - Some tactics used by insurers and pension funds to make life appear less volatile to customers can seem ‘artificial’ to asset managers

Concluding thoughts

- Many de-risking trends apparent in today's financial landscape
  - Drivers are often deep rooted. Outcomes have both **good and bad** elements. Better financial literacy and improved safety netting likely to be desirable. Our domain of interest/expertise may be narrower than we like to admit. Trends are driving some business model changes
- Some professional bodies have been highlighting de-risking trends
  - Regulators and other **policymakers have broader range of priorities**
- "*In this world nothing can be said to be certain, except death and taxes*" (Benjamin Franklin, 1789)
  - Individuals adopt diverse financial strategies to cater for these certainties: **private sector pensions and insurance form only a part of a typical individual's wealth**
  - Prevailing business models familiar to actuaries are often underpinned by favourable tax regimes: **stay aware of how these treatments might change over time**

Important Information