



The Future of Pension Fund Management

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Agenda

Five trends shaking the pillars of retirement systems

Pension fund efficiencies and challenges

Early retirement withdrawals

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The 3 pillars of retirement systems

I. Public/Universal

- Social safety net
- Longevity insurance
- Mandatory
- Often means-tested
- Pay-as-you-go or capitalized

II. Employer

- Customized to each sector
- Pools capital
- Contribution matching
- Often mandatory
- Often capitalized

III. Individual

- Freedom to choose
- Tax benefits
- Capitalized

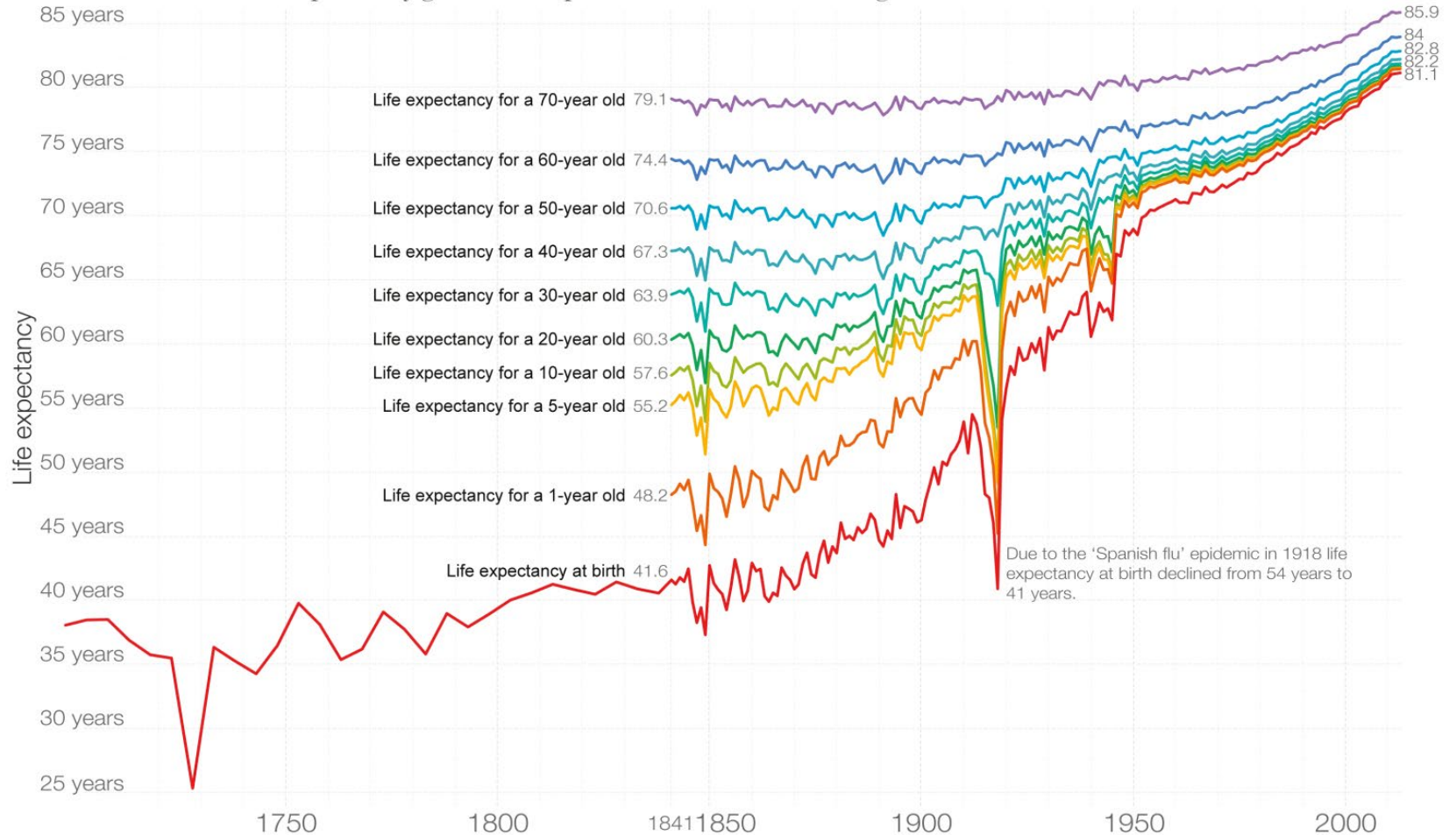
5 trends are shaking these pillars

- 1. Structural increase in longevity**
- 2. Structural decrease in real interest rates**
- 3. Old pension structures accumulate stress**
- 4. Increased levels of supervision and competition**
- 5. Reduced pooling of risks**

1. Structural increase in longevity

Life Expectancy by Age in England and Wales, 1700–2013

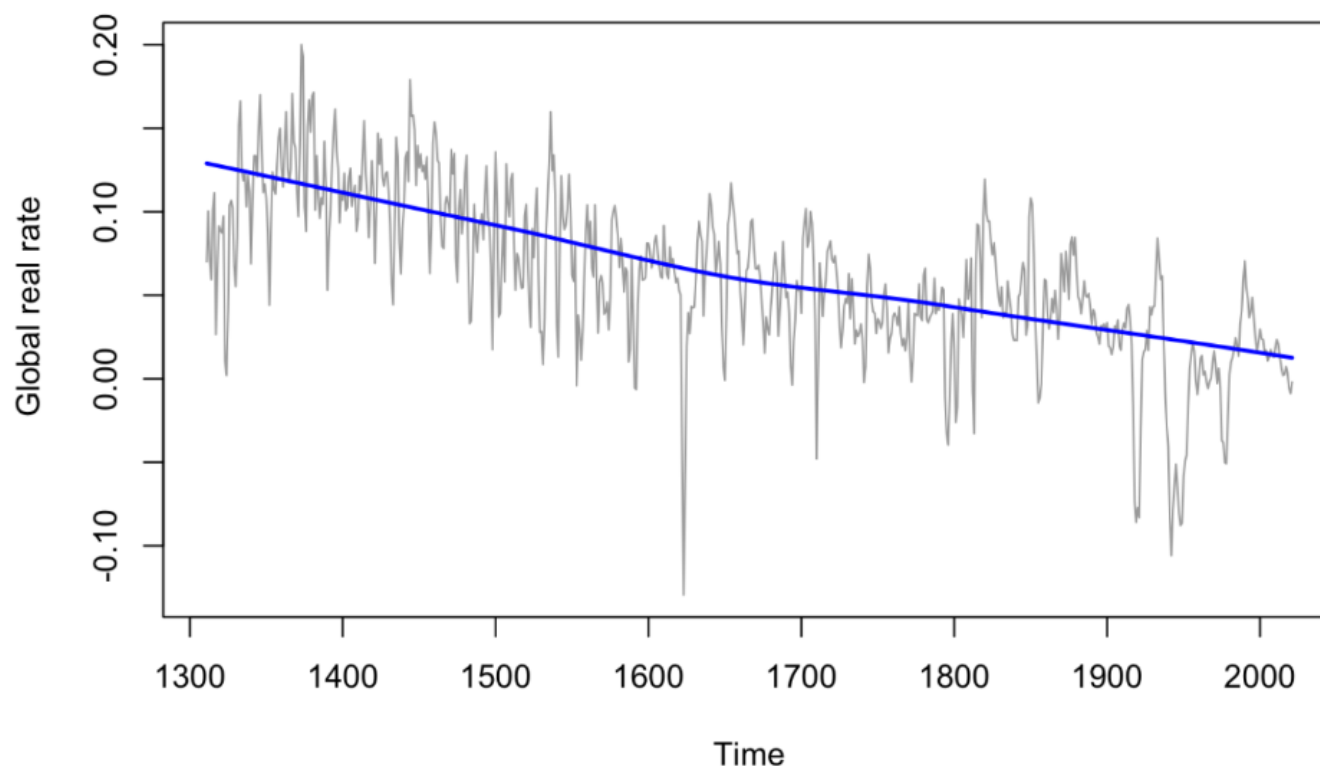
Shown is the total life expectancy given that a person reached a certain age.



Our World
in Data

2. Structural decrease in real interest rates

Figure 1: Headline global real rates, and trend, 1311-2021



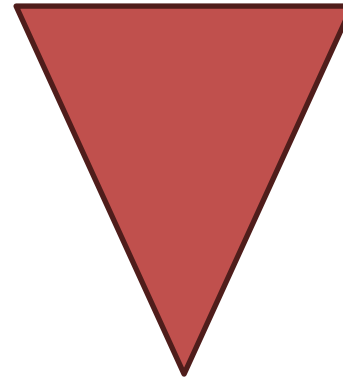
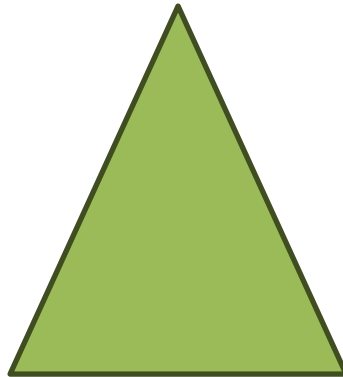
Rogoff et al 2022

Notes: Data based on [Schmelzing \(2022\)](#)'s GDP-weighted global real rate data. Long-maturity ex ante basis, deflated by using seven-year progressively-lagged inflation, excluding current year t . Structural trend (in blue) displayed as lowess function: the lowess (locally weighted average) function fits a non-parametric model, which is the "best fit" given the time series data.

3. Old pension structures accumulate stress

Pay-as-you-go plans used to be inexpensive

USA:
42 workers
per retiree
in 1940



USA:
2 workers
per retiree
in 2050

They have become expensive as longevity increased and fertility rates decreased

Reforms are hard to implement

3. Old pension structures accumulate stress

Many DB plans accumulate deficits

- Increase in liability due to longevity
- Hard to cut promised benefits
- Hard to raise contributions


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US Retirement Savings Shortfall Will Cost \$1.3 Trillion

A new analysis says states and the federal government will be on the hook for a massive bill as more Americans age out of the workforce.



Photographer: Sean Gallup/Getty Images

By [Suzanne Woolley](#) and [Steven Crabill](#)
May 12, 2023 at 10:45 AM EDT



4. Increased levels of supervision and competition

Switch to marked-to-market valuation of pension liabilities

- IFRS 13 (2011)

Requirement for pension plans to stay solvent

- EU Solvency II (2016)

Increased competition among pension plans

- Australia: Your Fund Your Super (2021)

5. Reduced pooling of risks

In DB schemes, risk is pooled and born by sponsors

- Promised benefits to pensioners

Most Pillar II pension plans have switched from DB to DC schemes

- Individuals now bear the market and longevity risks

Additional risk-transfer to young tax-payers

- If Pillar II investments fail, then Pillar I pay-as-you-go picks up the tab

These five trends are inter-related

High longevity and low yields add stress to a rigid system

Fear of system failure leads to increased need for protection

- Greater supervision and greater transparency of pension plans

Reduced trust in the system also leads to greater demand for liquid savings

Increased cost of pension provision reduces the sponsor's willingness to bear risks

- Transfer of risk and responsibility to individuals through new DC funds

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Well-designed pension plans create efficiencies

1. Provide a disciplined way to save from an early age

- Huge gains resulting from compound interest

2. Provide a disciplined way to invest the capital

- Professional asset management teams

3. Provide a disciplined way to withdraw the capital

- Help pensioners smooth the stream of retirement income

Well-designed pension plans create efficiencies

4. Provide opportunity to invest patiently over the long-term

- Pension liabilities are predictable and very long-term

5. Generate economies of scale

- Pooled assets reduce costs

6. Provide opportunities to pool and share risks

- Unsystematic longevity risk can be eliminated via pooling
- Risk sharing between pension plan sponsors and members

But these efficiencies can be challenging to achieve

Members need to trust their pension plan and institutional system

- Will the fund do what it says it will do?
- Will the fund still be there in 50 years when I'm elderly and vulnerable?
- If assets are pooled, will I get my fair share of the proceeds?

Trust is also hard to maintain

- Why are my pension fund managers paid high salaries?
- Why did my pension fund lose 30% in one year?
- Is my pension fund using my retirement money to save climate?

Are Canada's large pension funds wrecking the planet and losing billions. It's quite a trick

The Observer
Pensions industry

Los Angeles Times

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By Chris

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Opinion: California's pension funds are wrecking the planet and losing billions. It's quite a trick



An oil pump in L.A.'s Wilmington neighborhood. There's every reason for public pension funds to pull investments from fossil fuels. (Jay L. Clendenin / Los Angeles Times)

Canada's pension funds are wrecking the planet and losing billions. But v Ramon Ferrei



A new report ranks the CEO it deems to be "most overpaid" – then looks at how rarely big mutual fund managers and state pension plans voted against their pay package. (Xaume Olleros/Bloomberg)

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Without trust, efficiencies disappear...

Individuals save, invest, and withdraw on their own

Individuals demand transparency and ability to liquidate plan assets anytime

Individuals pay high fees

Individuals no longer pool risks

... and pension funds become mutual funds

Pension funds lose their ability to invest patiently over the long-term

- They are subject to strict annual benchmarking evaluations
- They face the risk of sudden investor withdrawals

Pension funds lose their ability to invest efficiently

- Funds have few incentives to deviate from other funds
- They hold large cash amounts
- They invest primarily in liquid markets (e.g. publically traded stocks)

July 04, 2022 12:00 AM

Active managers face headwind in Oz test

Tracking error now a big factor in superannuation fund performance reviews

By DOUGLAS APPELL  

Implications for the future of pension management

Successful and long-lasting pension schemes are those who are able to capture these efficiencies and build trust with members

Two examples of successful pension systems:

- The more DB-like Canadian model
- The more DC-like Australian model

Example 1: Canadian Model

Public-sector Canadian schemes are “modern DB” schemes:

- Members receive steady pension (approx. 1.5-2% of salary per year of service)
- Members and employers both contribute (approx. 10% of salary each)
- Indexation is conditional on funding status

Distinct features:

- First Canadian-Model funds established in 1980s
- Strong and independent governance system
- No possibility to switch plans for members (i.e. captive audience)
- No regulation to maintain solvency surplus based on MtM liabilities
- Risk-sharing between employers and employees (cond. indexation)
- Funds are fully funded

Efficiencies of the Canadian Model

- **Disciplined saving:** mandatory contributions
- **Disciplined investing:** professional teams that invest in wide portfolio of asset classes
- **Disciplined withdrawing:** automatic withdrawals as part of DB plan design
- **Patient capital:** funds have long-term horizon and captive audience
- **Economies of scale:** large Canadian funds manage CAD 100 billion+
- **Risk pooling:** longevity and market risk pooling, conditional indexation

Example 2: Australian Model

Australian Supers are “managed DC” schemes:

- Members accumulate savings inside the plans
- Capital is pooled and managed by professional teams
- Members bear the risks

Distinct features:

- Mandatory savings system (11% contributions)
- Members have default sector-wide plans but can switch to other plans
- Many plans are “profit for members” to align incentives
- On-going consolidation of Super industry
- Capital is locked until retirement

Efficiencies of the Australian Model

- **Disciplined saving:** mandatory contributions
- **Disciplined investing:** professional teams that invest in wide portfolio of asset classes
- **Disciplined withdrawing:** current efforts to provide decumulation options
- **Patient capital:** capital locked in until retirement age, cost to switching funds
- **Economies of scale:** large funds, pooled investments in infrastructure (IFM)
- **Risk pooling:** some decumulation initiatives provide longevity insurance

Takeaways

“DB model” is not dead

- Modern structures are hybrid versions that involve both DB and DC features

Optimal pension design highly depends on local environment

- Path-dependency
- Ability to build trust is highly context-dependent (institutions, inequality, etc...)

Trade-off between efficiency and trust

- Implies that not every source of efficiency may be feasible in a specific context
- Example: locked-up capital vs early retirement withdrawals

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Early withdrawals

Locked-up capital leads to profitable long-term investing

- Allows funds to take on illiquid investments with long-term profitability

But locked-up capital may create lack of trust in the system

- Creates a feeling of being captive and powerless
- Capital loses its tangibility
- Causes frustration when an individual is pension-rich but cash-poor and faces stress

There is value in learning from the covid experience

- Countries such as Australia, Chile, USA allowed members to dip into their pension savings early

The case of Chile

Covid relief in 2020

- 3 opportunities for Chileans to withdraw up to 10% of pension each time, with lower and upper bounds
- Lowest tranches could withdraw up to 100% of savings

REBOOT-LIVE JULY 27, 2020 / 7:08 AM / UPDATED 3 YEARS AGO

'We're going for more' say Chileans after pensions reform crosses free market Rubicon

By Aislinn Laing, Fabian Cambero

5 MIN READ



SANTIAGO (Reuters) - Within minutes of Chilean lawmakers approving a bill that allows citizens to draw down 10% of their pensions to help make ends meet during the coronavirus pandemic, a phrase started trending on Twitter: "We're going for more."



Juana Baez, 64, prepares toast bread on a wood stove next to her husband Mario Munoz, 57, in her home in a slum, during the outbreak of the coronavirus disease (COVID-19), in Vina del Mar, Chile July 24, 2020. Picture taken July 24, 2020. REUTERS/Rodrigo Garrido

Impact of early withdrawals (Mitchell et al 2023)

Most people withdrew capital at least once

- Only 3% did not withdraw

Individuals who withdrew the most tend to be:

- Lower-income and female
- In areas with lower education and less favorable views of the Chilean system

Capital was moved to liquid accounts with no restrictions

- Capital still remained on individual savings accounts at end of 2021

Withdrawals led to significant pension shortfalls

- 11 (8.5) years of additional work for 55-yr old men (women)

Pros and cons of early withdrawals

Individuals tend to under-save and over-spend

- Under-estimate their longevity
- Effects most pronounced for individuals with low financial literacy

Individuals value liquidity

- Rainy day pot in bad times

Early withdrawals reduce efficiency but increase trust in pension system

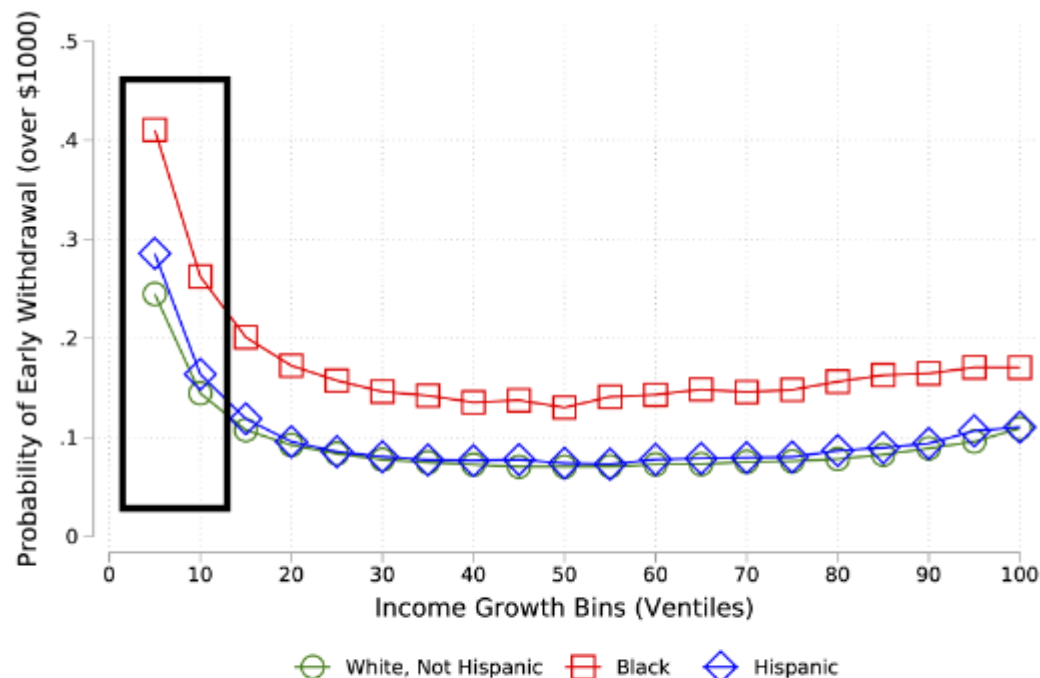
The case of the U.S. (Choukhmane et al 2023)

5,000 US DC plans between 2003-2018

- Great investment due to employer matching

Early withdrawals are penalized and often signal a liquidity need

Black workers are much more likely to withdraw early



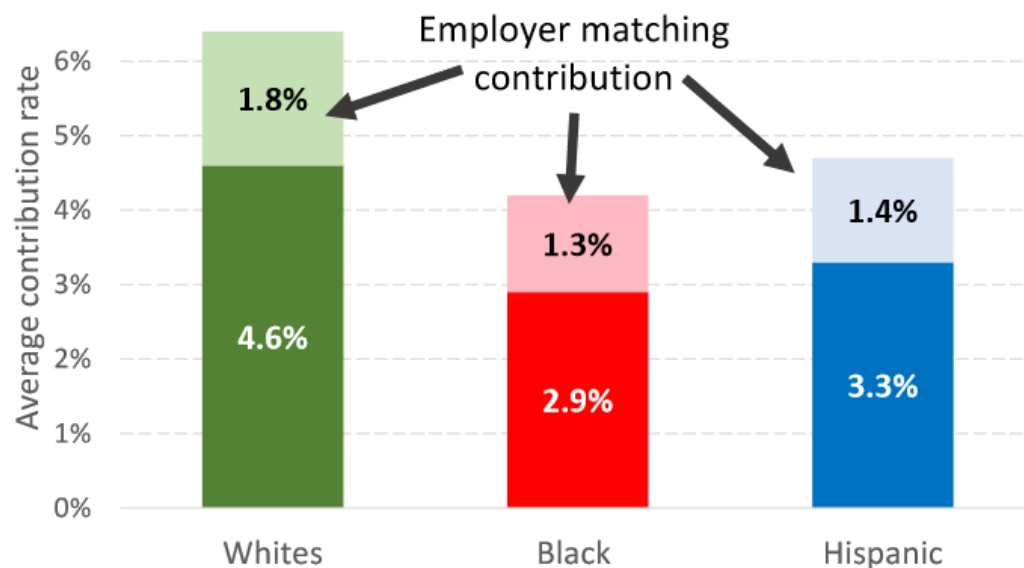
Notes: Figure plots the fraction of workers, by race and 20 ventile bins formed on contemporaneous arc W2 income growth rates from year $t - 1$ to t . Sample is restricted to subset of individuals who contributed at least \$1,000 to DC accounts prior to year t .

The case of the U.S. (Choukhmane et al 2023)

**Contributions to DC schemes
are voluntary**

**Black workers contribute
significantly less**

- Gap remains after
controlling for large number
of individual characteristics
- Consistent again with need
for liquidity



Takeaways

Providing some liquid capital brings value to individuals

- Addresses the need for liquidity by households in bad times
- Builds trust in the system that the money is there

But liquid capital comes at the expense of pension capital efficiency

- Inefficient withdrawals and inefficient investments

“Sweet spot” in allocating a proportion of pension accounts for emergency use

- Rainy day fund or sidecar savings where the proportion of liquid savings goes down with every additional contribution
- Liquid capital remains contained and available for those who need it the most
- Access to part of the capital may encourage individuals to save more

Final takeaways

There is a lot to learn from the aging demographics of developed economies

- Stress imposed on pre-existing pension structures
- Reactive move away from pension fund efficiency

Some pension structures are resilient to structural changes in longevity

- Key is to channel the various forms of pension efficiencies

Challenge is to develop efficient pension structures people can trust

- The more you lock up capital, the more you run into possible trust issues

We should expect different pension structures to thrive around the World

- What works well in one environment may not work in another

Thank you
