Longevity and Retirement Income

- Defined Contribution Plans Experience with dealing with Longevity
  - US - Plan Sponsor Perspective
    - Survey results – WorldatWork, Deloitte
- Perspectives from around the Globe (Australia, UK, US, CA)
- What needs to be done
- What is Retirement Income?
- Tenets of Retirement Income
  - Examples
  - Benchmarking – DCDB Benchmark

Annuity Payout Options

- Various surveys show 5 – 10% DC plans have annuity payout options – see Deloitte 2013/2014 Survey

Exhibit 5.3 Have you considered adding an at-retirement income solution (annuity purchase option and/or annuity selection software) to your current plan?

	2011	2012	2013
Yes, we are looking into it.	17%	17%	12%
Yes, we have added this to the plan.	5%	6%	5%
No, we are not considering at this time.	72%	66%	69%
Unaware of this feature.	6%	11%	14%
			n=174

- Low take-up rate by participants

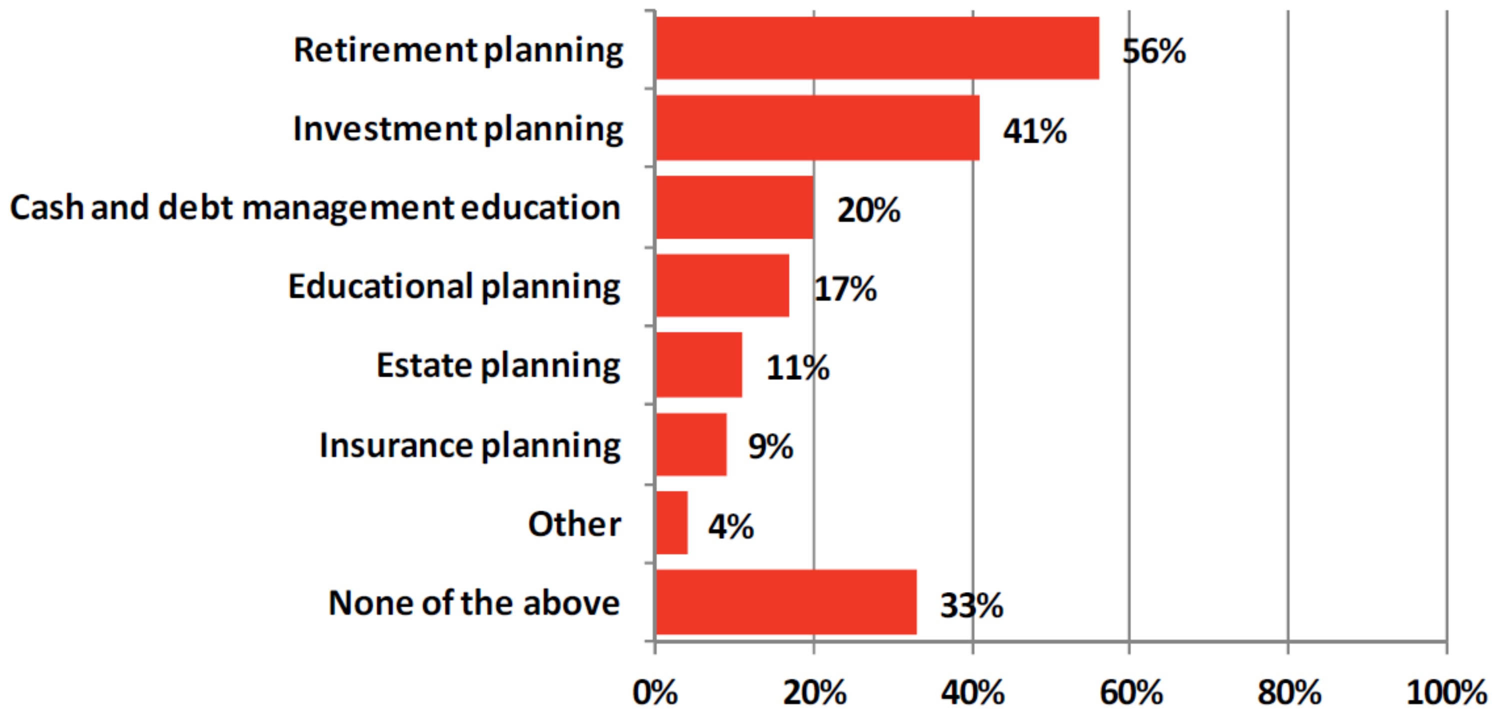
Source: Deloitte Annual Defined Contribution Benchmarking Survey – 2013 – 2014 Edition

(Re)Defining Retirement Income

Financial Planning

Figure 16: Financial Planning Offerings

"Which of the following does your organization offer? (Check all that apply.)" (n=334)



Source: WorldatWork – Trends in 401(k) Plans and Retirement Rewards, March 2013

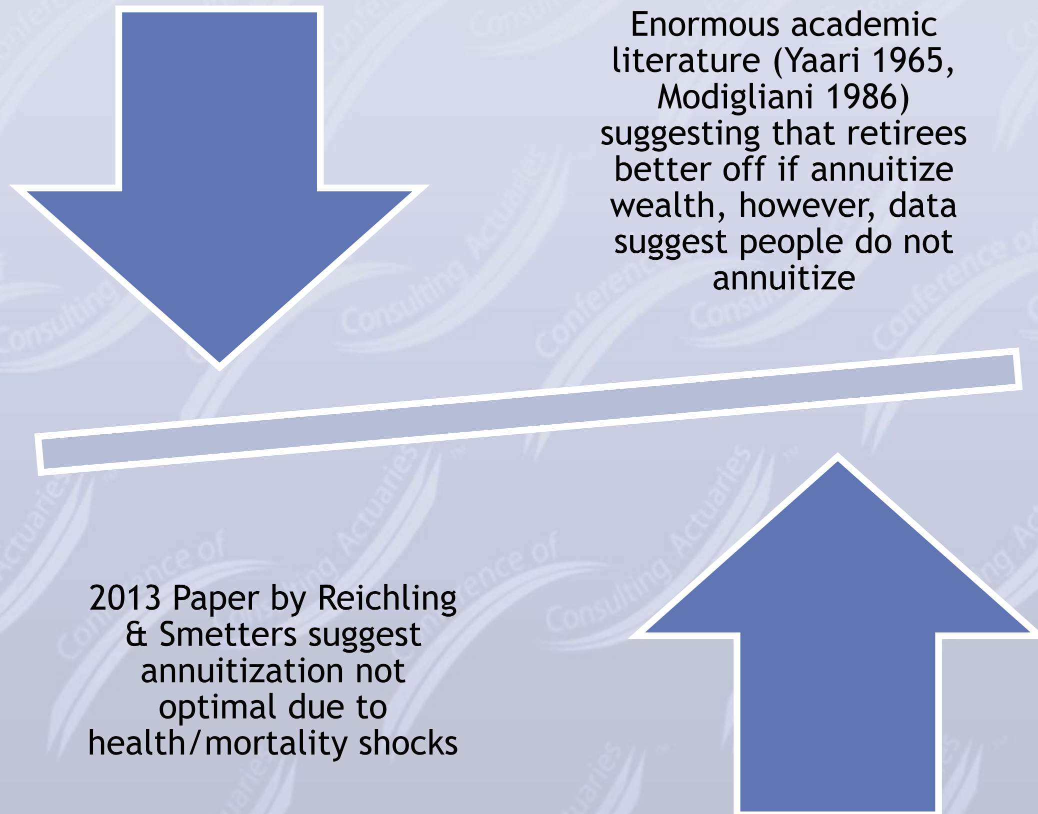
Perspectives from around the world
Moving in different directions
Towards/away from annuities?

Australia

UK

Canada
US

Annuity Puzzle – Why don't people annuitize?



Australia

- Retirement system dominated by superannuation funds – a DC program with no required annuitization

- Australian Government, <u>Review of retirement income stream regulations</u>, Discussion Paper, July 2014

- Why annuities are only a small share of market?
  - Retirees'
    - preference for ready access to capital
    - desire to leave bequest
  - Retirees already receive Age Pension – analogous to our Social Security System
  - Counterparty risk
  - Pricing complexity & viewed as "expensive"

Almost straight out of Reichling & Smetters

Australia – What do people do?

- **32%** Buy a home/pay for home improvements/pay off mortgage
- **27%** Invest the money elsewhere or put it in bank account
- **21%** Keep it invested it in a pension scheme
- **19%** Buy or pay off a car
- **14%** Pay for a holiday
- **12%** Clear other debts
- **5%** Help family members
- **4%** Purchase an immediate annuity
- **17%** Other

Source: Challenger Retirement Income Research, Australia, April 2012

Comparison Australia vs. US Required Minimum Payments – tax driven retirement planning

Table 2: Minimum payment percentages

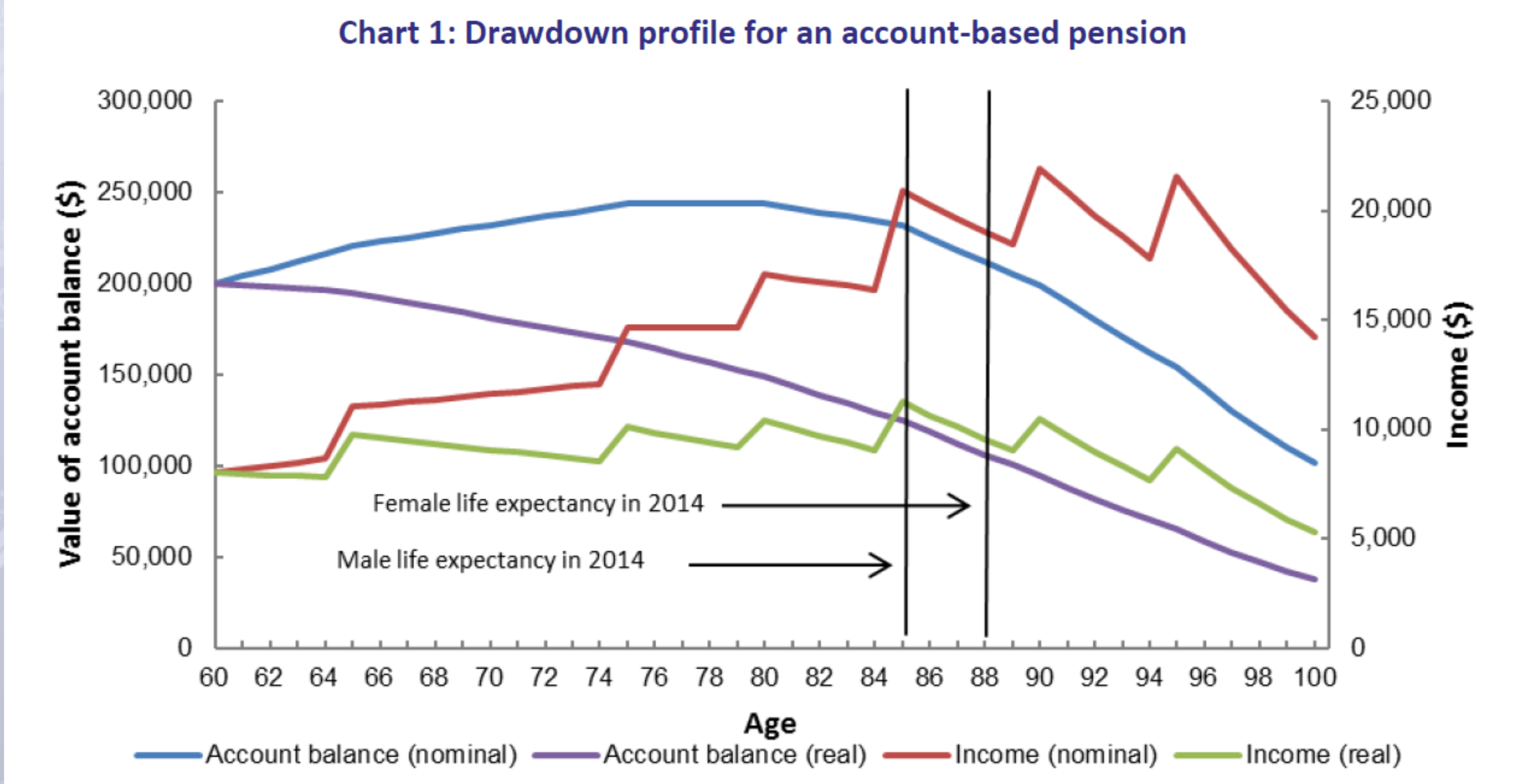
Age	Normal minimum payment percentages (no drawdown reduction)
Under 65	4
65-74	5
75-79	6
80-84	7
85-89	9
90-94	11
95 or more	14

Source: The Australian Government The Treasury – Discussion Paper, July 2014, p. 18

Required Minimum Distribution (RMD) US Approximately equivalent
N/A
4%
5
6
8
10
11+

Source: IRS – Required Minimum Distribution Worksheets – converted to percentage by author

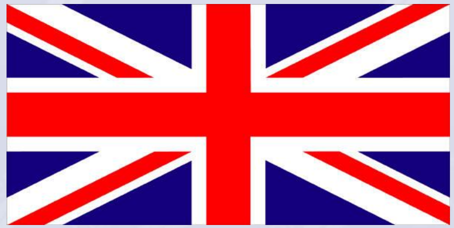
Drawdown using required minimums



Note: The analysis assumes an average nominal investment return of 6 per cent and inflation of 2.5 per cent.

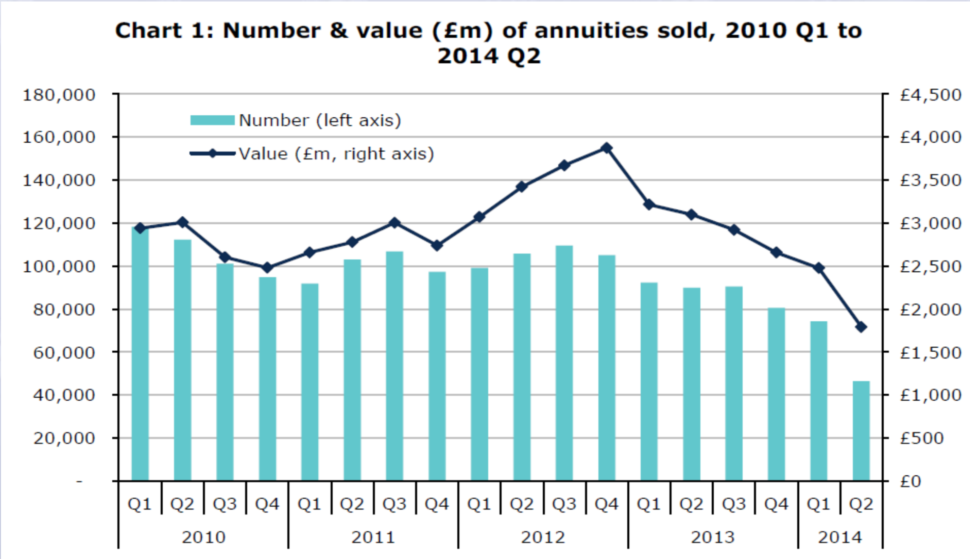
Source: The Australian Government The Treasury – Discussion Paper, July 2014, p. 19

UK

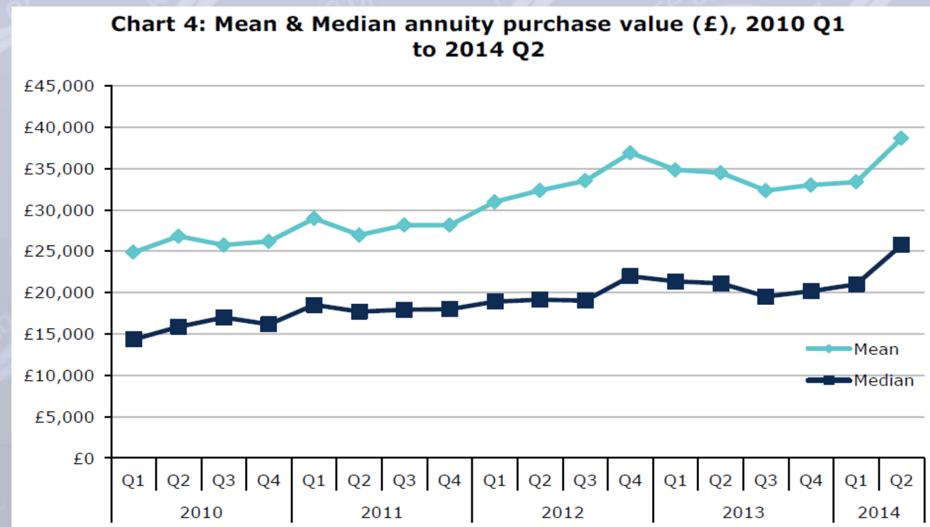


- In Budget 2014 announced March 2014, government removed requirement for mandatory annuitisation at age 75 effective in 2015
  - providing greater flexibility to participants at distribution
- Question for UK DC Plan Trustees?
  - Impact on default investment option for the plan
    - Should trustees select default investment to target annuitisation or simply accumulation of account balance?
      - Financial Economics view says annuitisation
      - Total Return View says account balance

Market reaction to Budget 2014



Sales of annuities have fallen by over a third between the first and second quarter of 2014



The average balance of an annuity is bigger, as more people with smaller balances are taking cash following the increased limits announced in the Budget

Source: Association of British Insurers

UK moving away from annuities?

So, which way is it? – Prime Minister moving away from annuities, but House of Commons highlights positive attributes

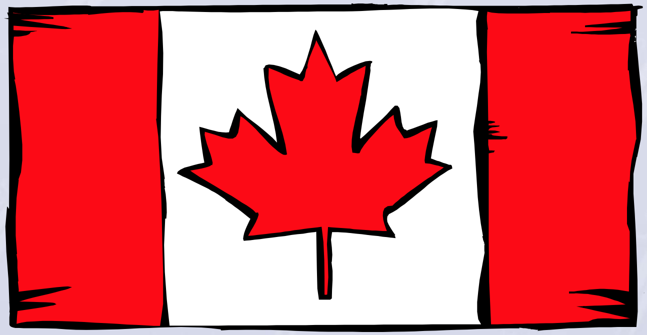
From "Pensions: income drawdown" – SN 712 – House of Commons Library
May 2014

Annuities remain an **effective** way of insuring against the risk of exhausting savings prematurely and are **good value** in comparison with other similar products.

Research shows that **individuals often underestimate their own longevity** and the risk of individuals running out of retirement savings increases as **longevity continues to increase**.

Individuals who wish to benefit from greater flexibility will therefore be able to do so provided they **do not fall back on the state**.

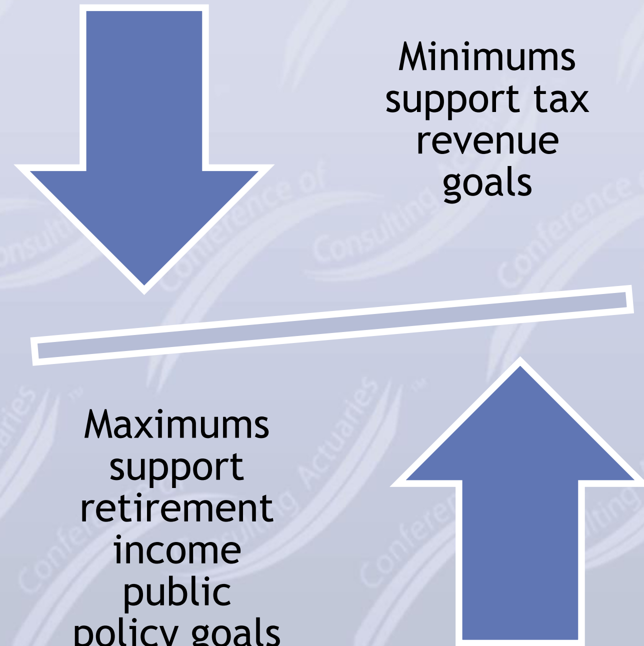
Canada



- Framework
  - DC plans required to offer
    - annuity option
    - Transfer to Locked In Retirement Account (LIRA)
  - LIRA hold assets until distribution
  - At retirement, person choices
    - Buy annuity
    - Transfer to a various income funds – provincial rules apply (Life Income Fund (LIF), Locked-In Retirement Income Fund (LRIF), Prescribed Retirement Income Fund)
  - Various income funds have **minimum / maximum** requirement payments, a couple of provinces require annuitization at advanced ages (e.g. Newfoundland – age 80)

Canada LIF Min/Max

Age	Minimum	Maximum
55	2.9%	5.0%
60	3.3%	5.2%
65	4.0%	5.8%
70	5.0%	6.6%
75	7.9%	8.1%
80	8.8%	11.4%



US – Promoting Annuities

- Issued July 1, 2014 by the U.S. Department of the Treasury and the Internal Revenue Service – working on for 3 + years
- Longevity annuities commence income at a deferred point in time (i.e., age 80 or 85)
- Qualified Longevity Annuity Contracts (QLAC)
  - Provides an exception to the Required Minimum Distribution rules for funds within individual account plans (Defined Contribution Plans or IRAs)
  - $125,000 or 25% of the total account balance
  - Must be deferred to an advanced age
  - Must be a fixed income annuity
  - May be offered with or without a return of premium feature

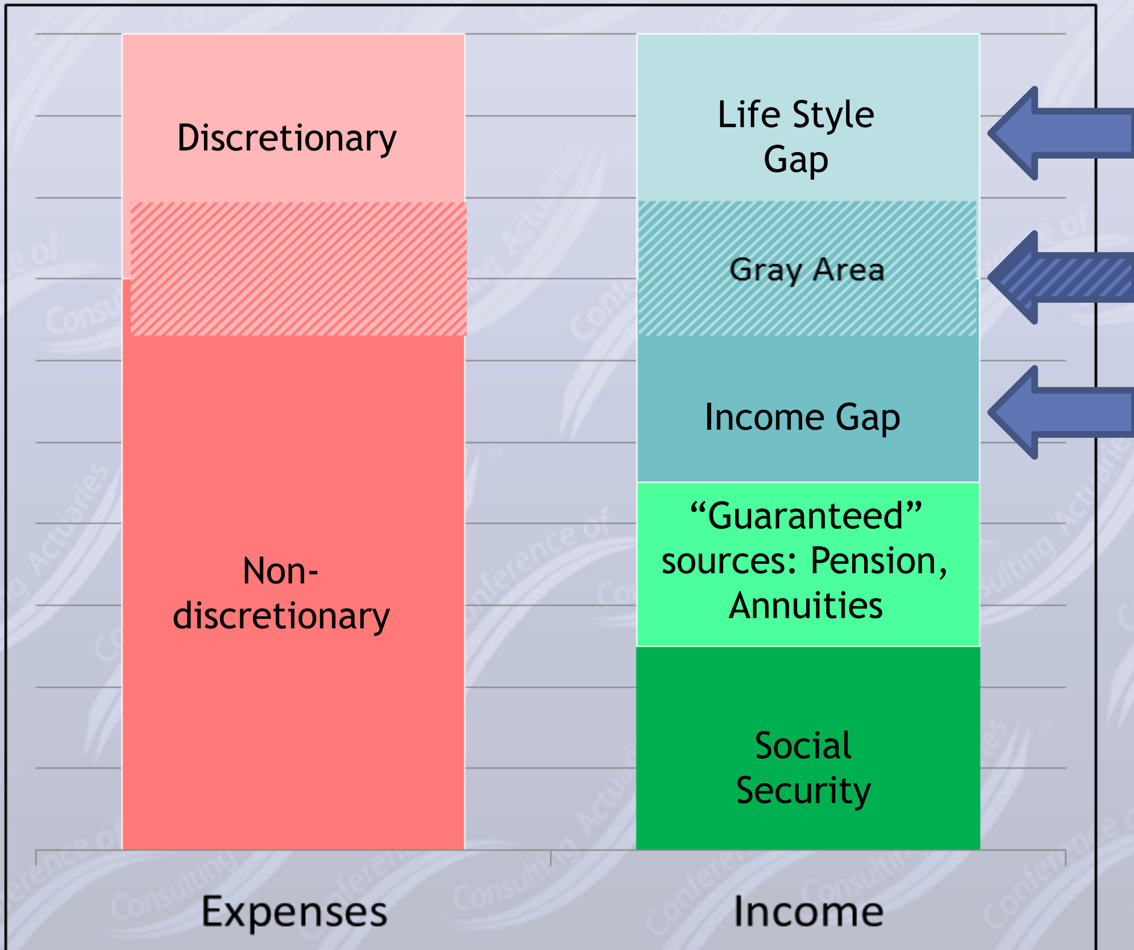
What needs to be done

1. (Re)Define Retirement Income – spending both principal and interest

2. Change the Conversation between participants, plan sponsors, financial services industry

3. Design/Reposition products and solutions both within and outside plan

Defining Retirement Income



Levels 1 - 3

3. Financial Advisor advice (tax harvesting, required minimum payments, etc.) and "riskier" products

2. Gray area - with significant lifestyle impact if expectations not met

1. Retirement income product designed for this income gap

Tenets of Retirement Income

1. Execution is personal

2. Retirement income = spending principal and interest
    - Not the "Endowment 4% Model"

3. Deal directly with inflation and longevity

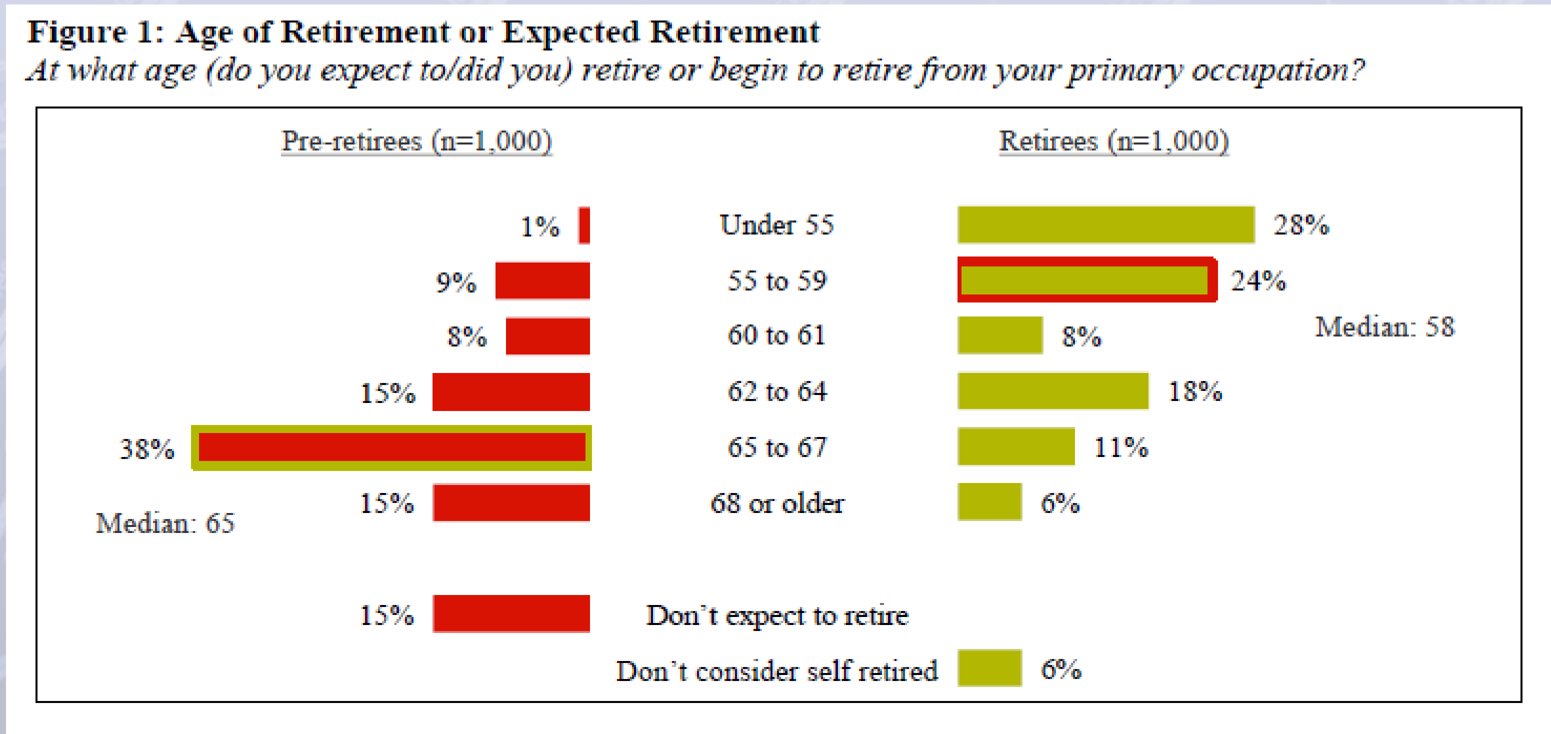
4. Know where you are taking risks – benchmark

5. Flexibility is key

Flexibility – Planning only gets you so far

Expected vs. Actual Retirement

People expect to work longer than actually what happens



Source: Society of Actuaries, 2013 Risks and Process Retirement Survey

Benchmarking

Three Major Stages for Account Management

Accumulation

Stabilization/ Pre-Retirement

Distribution

This third and final stage is focus of article published in CFA Institute's FAJ Winter 2012 co-authored by Cassidy, Peskin and Sexauer titled "Making Retirement Income Last a Lifetime"

Distribution Phase

- Key question
  - How should participants convert defined contribution account balances to real, inflation protected income?
- Current Options – both in-plan and out-of-plan solutions
  - Direct from insurers
    - MetLife, Pru, Genworth, others
  - Partnerships with investment/platform providers
    - Fidelity, Vanguard, BlackRock, AllianceBernstein, Hueler
- Major Limitation - capital markets are incomplete
  - Can not transfer retirement income in riskless manner
    - Inflation
    - Longevity
    - Counterparty
  - Forces trade-off between risk and utility
- Plan Sponsor Question
  - How best to help participants weigh these tradeoffs?

Risk/Utility Tradeoff

- Current shortcomings
  - Participants have little/no context to evaluate alternatives
  - Platform providers' modeling tools over-reliant on mean/variance optimization using diversification as key method of risk management ("4% withdrawal rule")
- Need
  - A benchmark from which participants can make utility-enhancing decisions
- Requirements
  - Doable – in today's marketplace
  - Executable – by individual participants
  - Measurable – can be benchmarked, replicable

DCDB™ Benchmark

- Introduced in paper in Financial Analysts Journal
- www.DCDBBenchmark.com
- Lowest-risk income stream minimizing the following risks:
  - Inflation
  - Longevity
  - Counterparty

"Lowest risk yardstick" – compared to Blackrock's CORI Index

- Therefore, benchmark has two components
  - Self-liquidating, laddered portfolio of TIPS with maturities up to 20 years, providing retirement income from ages 65 to 85
  - Deferred, inflation-adjusted (real) life annuity, with payments starting at age 85
    - Scaled so that the first deferred annuity payment is expected to be the same, in real terms, as the last cash flow from the TIPS portfolio using current breakeven inflation

DCDB™ Benchmark – Index Feb 2014

Hypothetical $100,000 Account

Calculation		Portfolio Allocation		Annual Income Payment Streams			Deferred Annuity: Nominal Payment
Month	*Age*	*TIPS %*	*Annuity %*	*Payment in Yr 1*	*Inflation*	*Payment in Yr 20*	*Payments in Yr 21 +*
Feb-14	65	85%	15%	$4,568	2.0% ☆	$6,784	$6,784

85% of balance allocated to self-depleting TIPS portfolio

Produces payment in year 1

15% of balance allocated to 20 year deferred annuity

☆ Using Fed Reserve breakeven inflation

Calculation		Portfolio Allocation		Annual Income Payment Streams			Deferred Annuity: Nominal Payment
Month	*Age*	*TIPS %*	*Annuity %*	*Payment in Yr 1*	*Inflation*	*Payment in Yr 20*	*Payments in Yr 21 +*
July-14	65	86%	14%	$4,497	2.1%	$6,747	$6,747
June-14	65	86%	14%	$4,506	2.1%	$6,758	$6,758
May-14	65	86%	14%	$4,596	2.0%	$6,866	$6,866
Apr-14	65	86%	14%	$4,639	2.0%	$6,895	$6,895
Mar-14	65	86%	14%	$4,611	2.0%	$6,842	$6,842
Feb-14	65	85%	15%	$4,568	2.0%	$6,784	$6,784
Jan-14	65	86%	14%	$4,725	2.0%	$6,989	$6,989