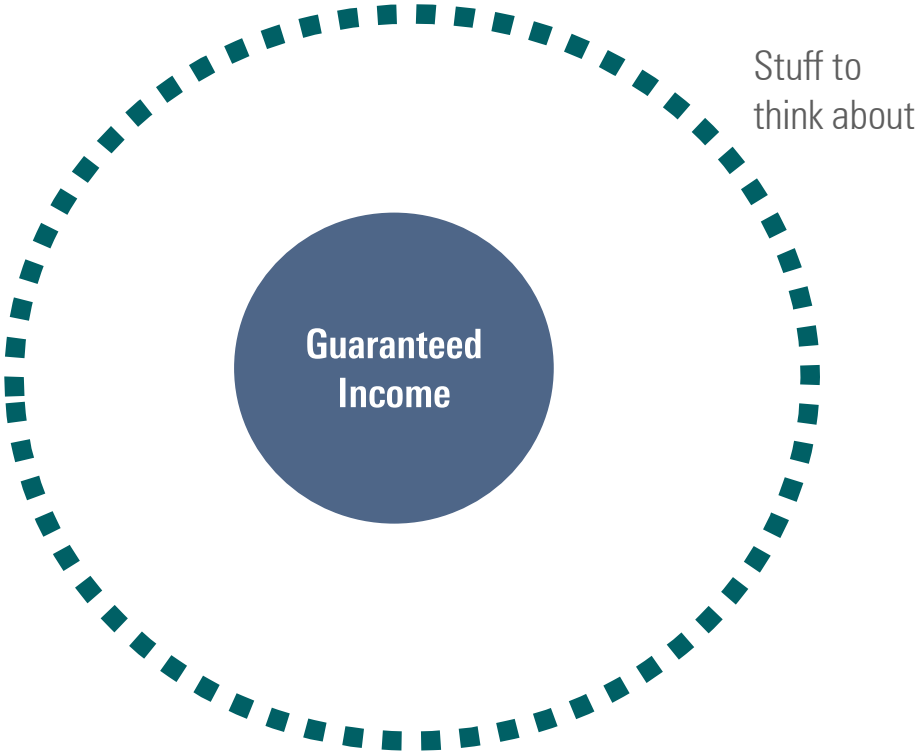
Guaranteed Income: The Forgotten Household Asset

David Blanchett, PhD, CFA, CFP®
Head of Retirement Research
Morningstar Investment Management LLC

Agenda



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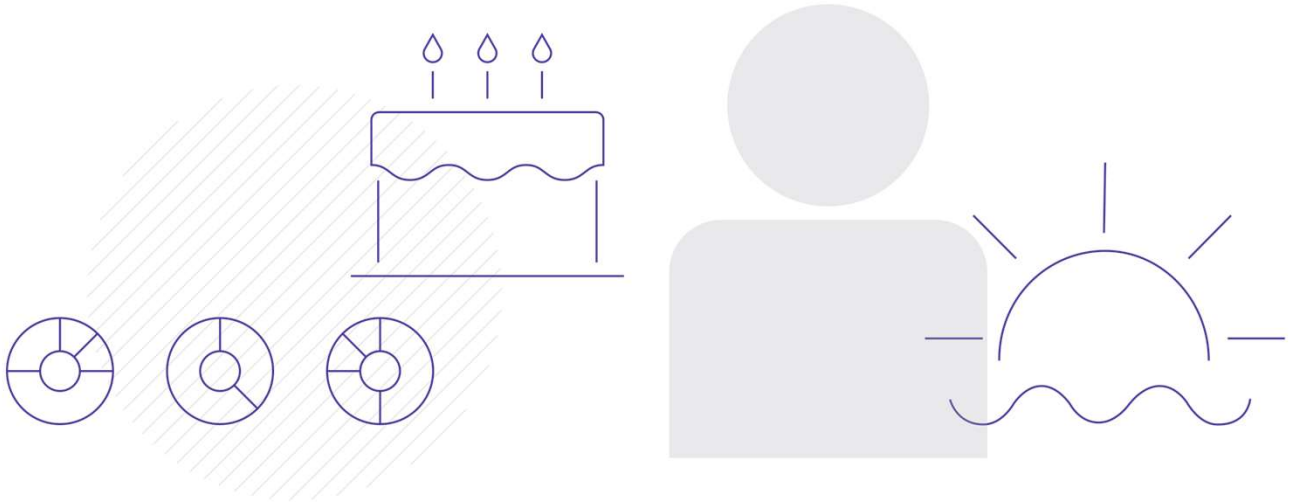
Topics Discussed

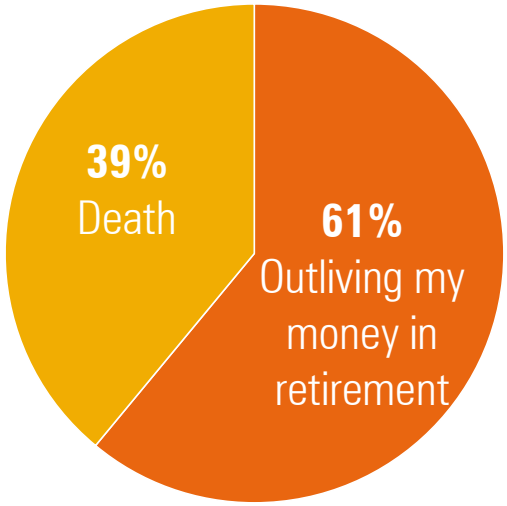
- Longevity risk
- Measuring retirement success
- Guaranteed income and retirement spending
- Guaranteed income and the household balance sheet
- Impact on risk levels
- Who should annuitize?
- Considering product features
- Low bond yields

Longevity Risk

Longevity Risk



What Do Retirees Fear More?



Source: https://www.allianzlife.com/content/public/Literature/Documents/ent-1154.pdf

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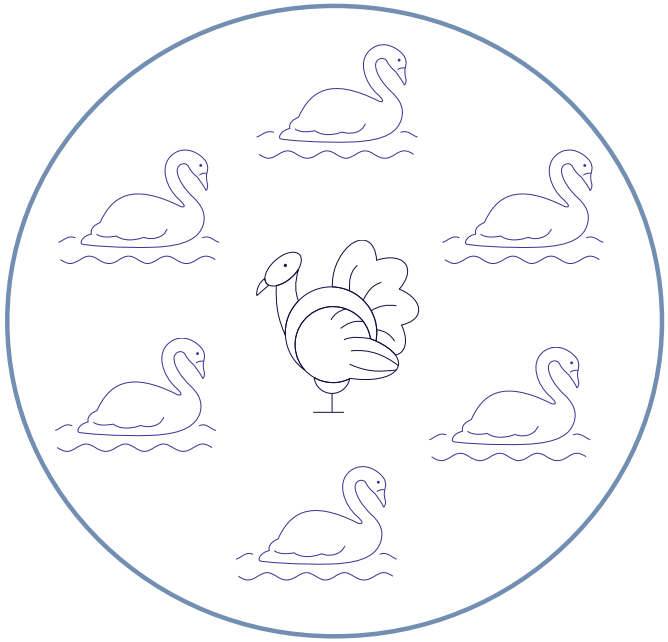
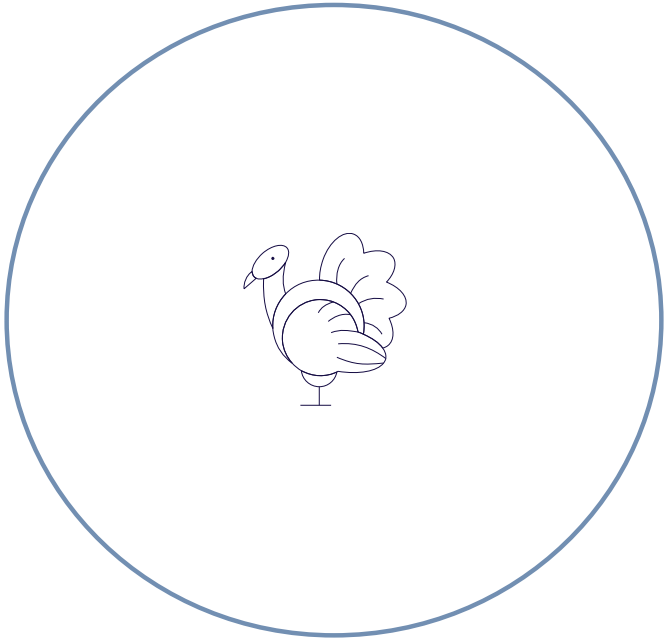
Inefficient Retirement Planning

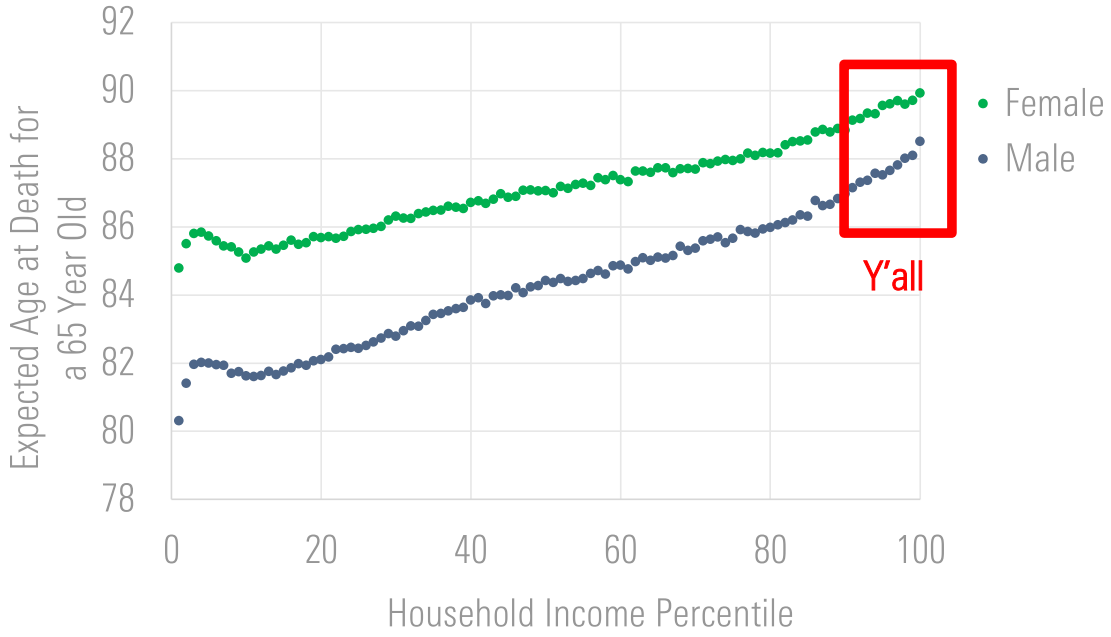
Defined Benefit Plans



Defined Contribution Plans



Life Expectancy by Household Income



Source: The Health Inequality Project

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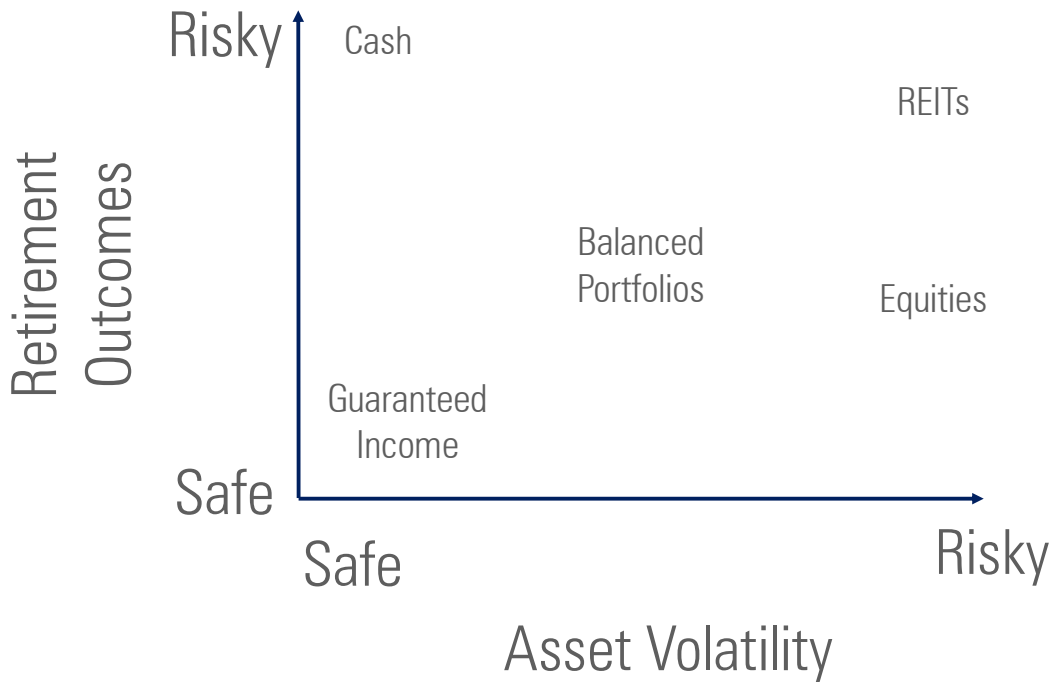
Measuring Retirement Success

What is a Safe Asset?

Probability of Income Failing During a Retiree's Lifetime

Traditional Portfolio	Guaranteed Income
>0%	~0%

Different Dimensions of Risk



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Defining Success

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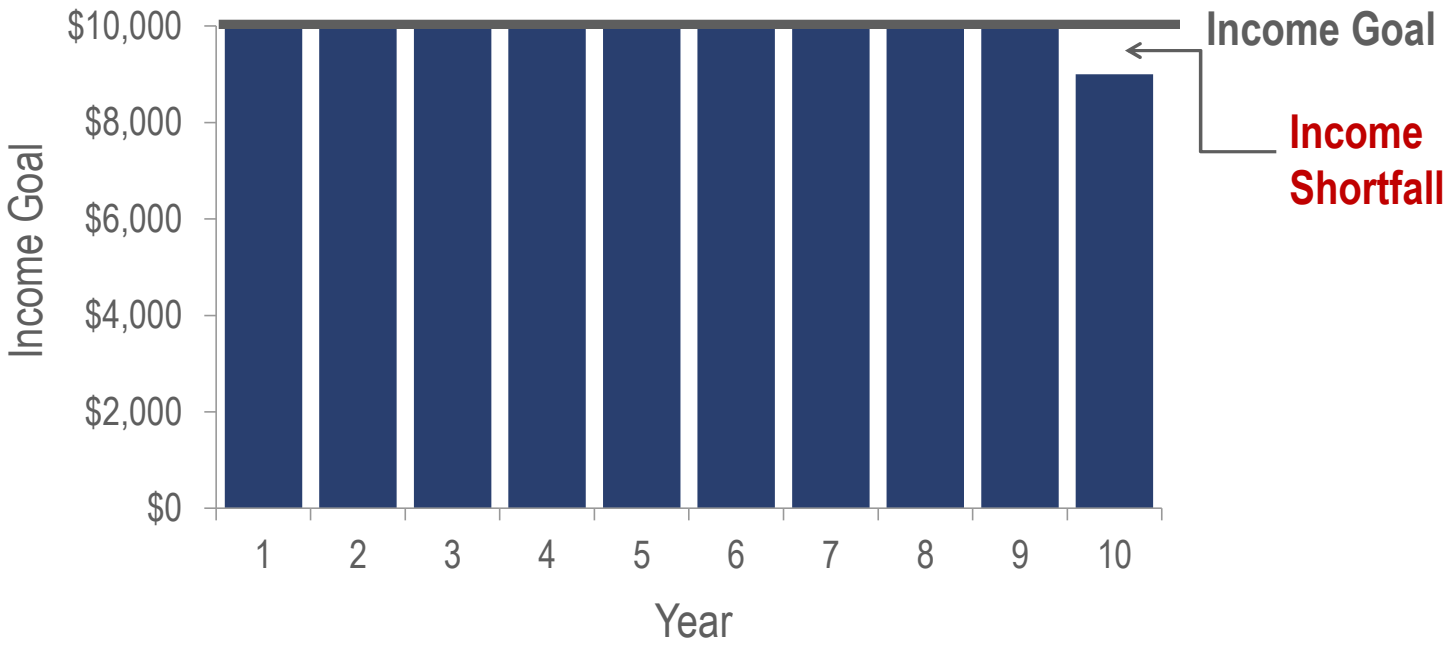
Defining Failure



- You can achieve 99% of your goal and still “fail”

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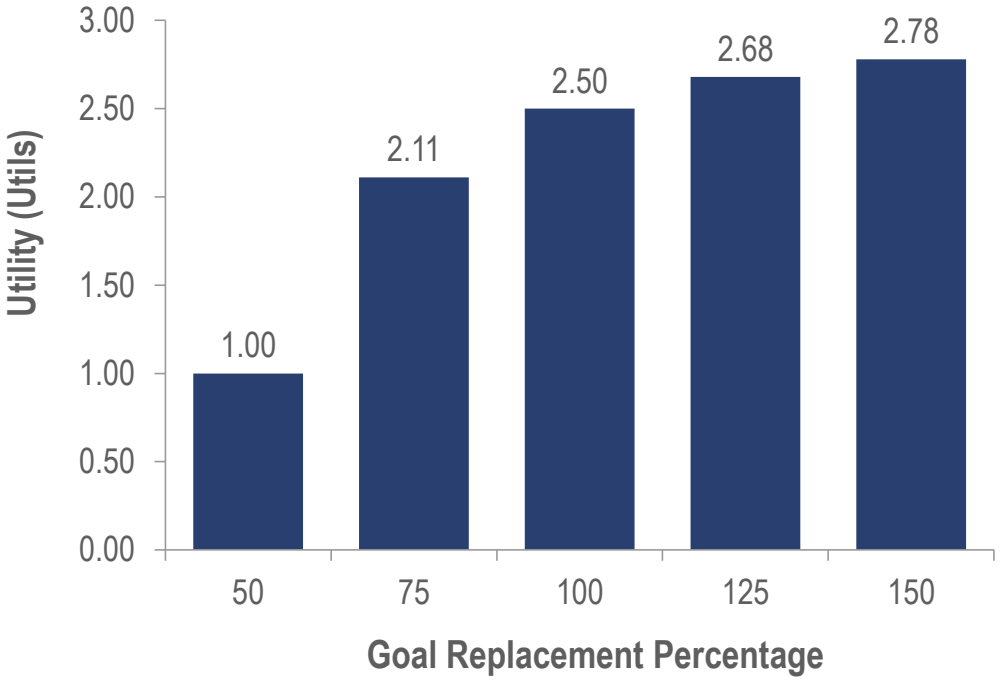
True “Failure”

		Current Living Status	
		Alive	Dead
Portfolio Balance	≥ $0	Not Failure	Not Failure
	< $0	Failure	Not Failure

Using Utility to Quantify Preferences



50% (1.00 utils) and 150% (2.78 utils) results in average utility of 1.89 versus 2.50 for a consistent 100% replacement

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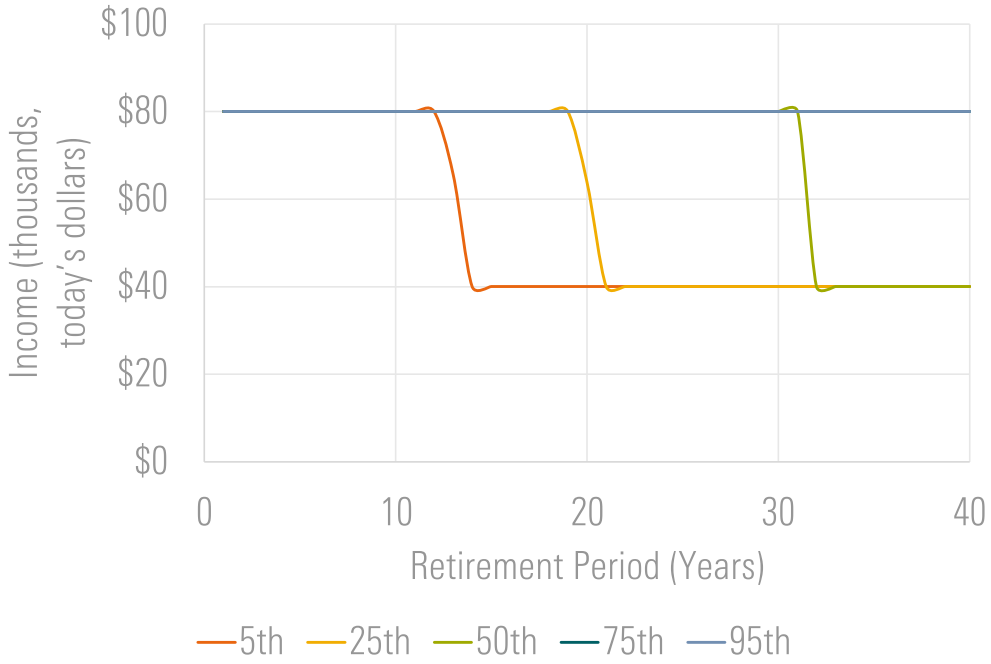
Income Percentiles



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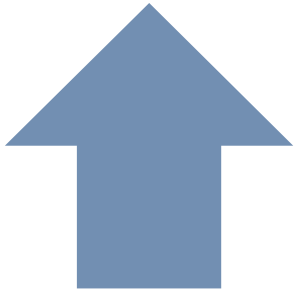
Which is More Useful?

In the worst 1 in 10 projected outcomes, you will have $50,000 in income, in today's dollars

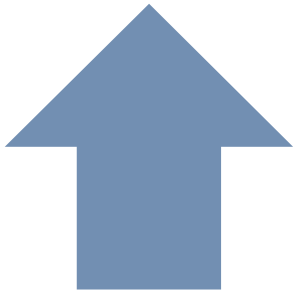
You have a 57.846% probability of success

Guaranteed Income and Retirement Spending

Safe Initial Withdrawal Rates



As the percentage of the retirement income need covered by guaranteed income rises…



The sustainable withdrawal rate rises as well

Safe Initial Withdrawal Rates

% of Income that is Flexible	% of Retirement Need Funded With Guaranteed Income					Avg
	5%	25%	50%	75%	95%	
0%	2.0%	2.9%	3.6%	4.5%	6.3%	***3.9%***
25%	2.2%	3.1%	3.8%	4.7%	6.4%	***4.0%***
50%	2.4%	3.3%	4.0%	4.8%	6.6%	***4.2%***
75%	2.5%	3.5%	4.2%	5.0%	6.8%	***4.4%***
100%	2.4%	3.6%	4.4%	5.1%	6.9%	***4.5%***
Avg	***2.3%***	***3.3%***	***4.0%***	***4.8%***	***6.6%***	

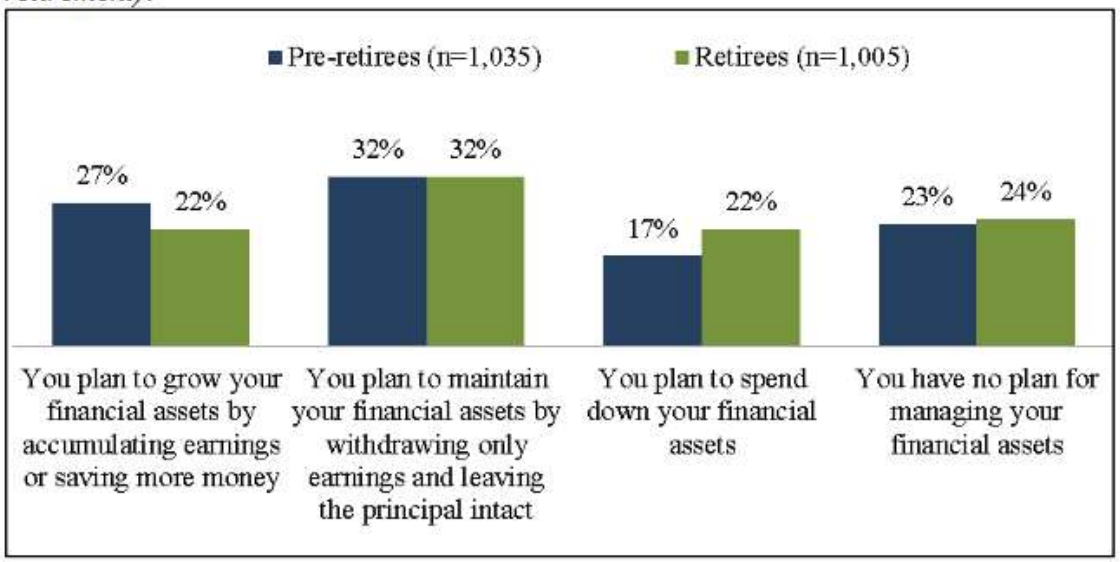
(the more flexible you can be with respect to withdrawals the higher the initial withdrawal rate can be)

(the more of your wealth in guaranteed income the higher the initial withdrawal rate can be)

Source: "The Impact of Guaranteed Income and Dynamic Withdrawals on Safe Initial Withdrawal Rates" by David Blanchett, *Journal of Financial Planning*

Fear of Spending Down Wealth

Which one of the following best describes how you plan to manage your financial assets (in retirement)?



Source: https://www.soa.org/globalassets/assets/Files/Research/Projects/research-2015-full-risk-report-final.pdf

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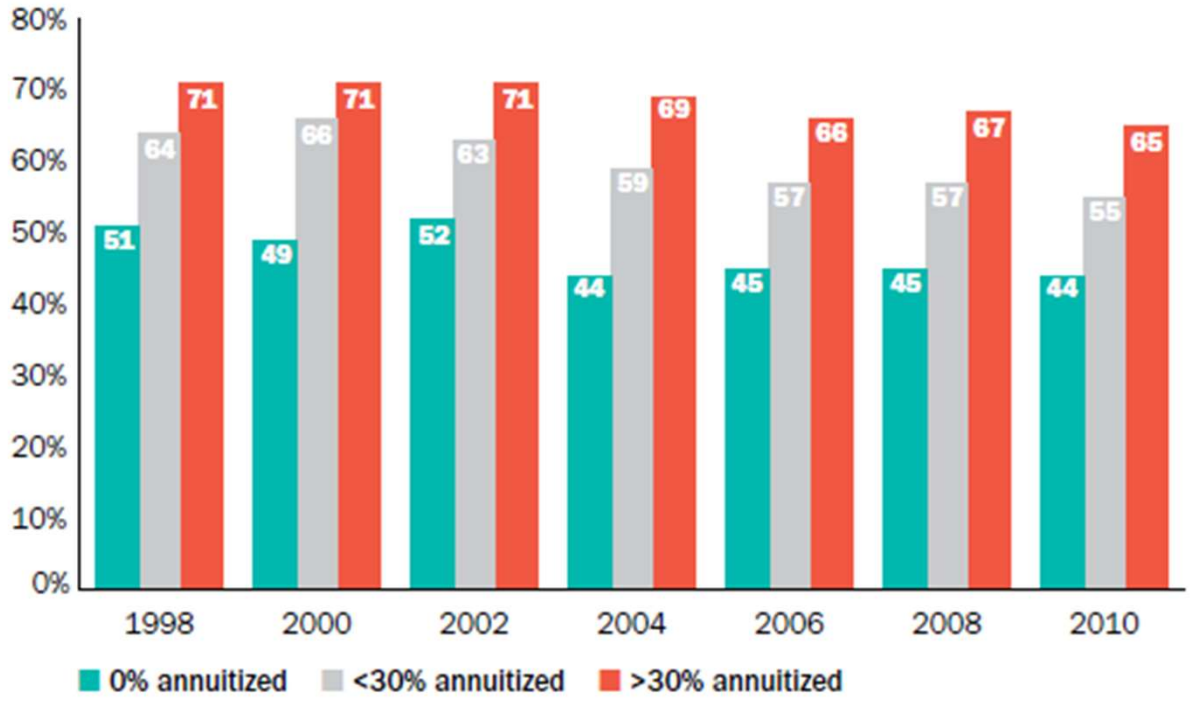
Guaranteed Income and Retirement Satisfaction



Source: Nyce and Quade (2012)

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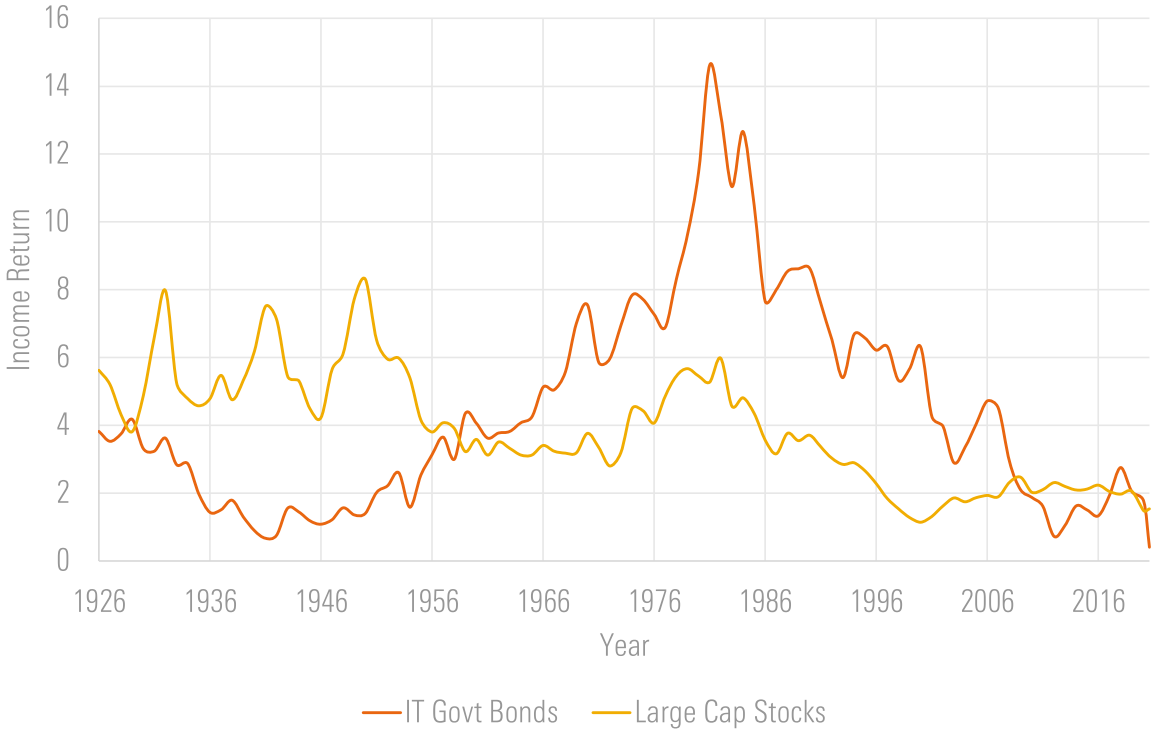
Living off Yields is Likely No Longer an Option



Source: Morningstar Direct, SBBI time series

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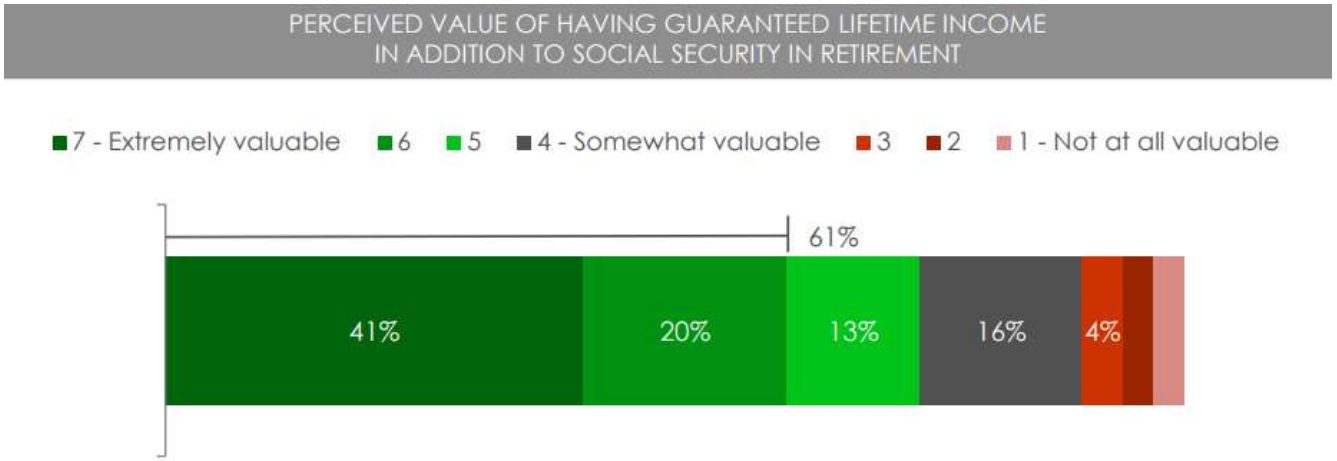
The Perceived Value of Guaranteed Income



Source: Greenwald & Associates with Cannex – 3rd Annual Guaranteed Lifetime Income Study (2017)

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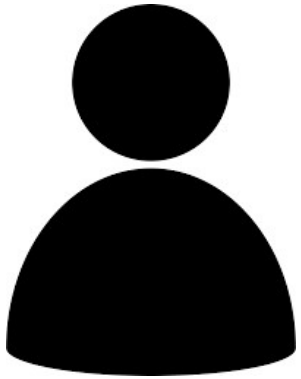
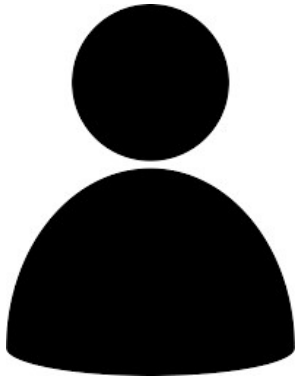
Guaranteed Income and the Household Balance Sheet

Who Would You Rather Be?



Assets = $500,000
Pension Benefits =$100,000



Assets = $750,000
Pension Benefits =$25,000

The Largest Asset of Many Retirees

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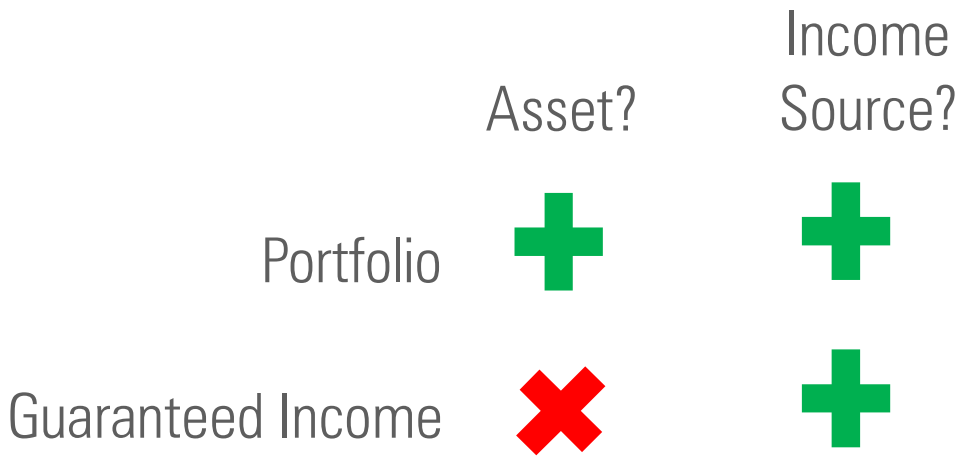
Financial Statement Consideration



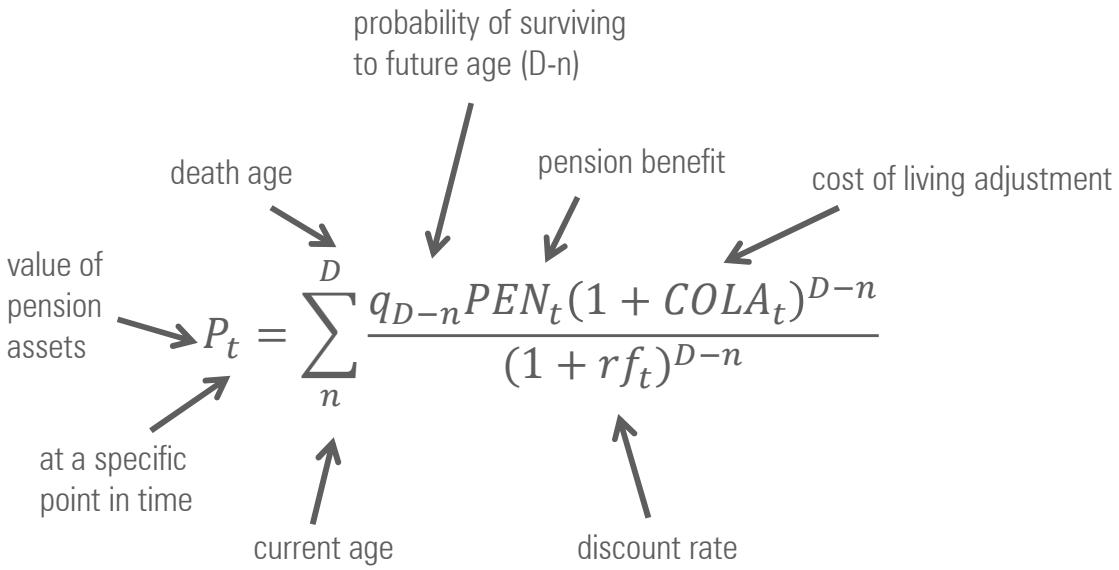
A Better Balance Sheet

Exhibit 2 Economic (Holistic) Balance Sheet as of 31 December 2014

Assets		Liabilities	
Financial capital	€4,020,000	Debts	€640,000
Liquid assets		Credit card debt	
Investment assets		Car loan	
Personal property		Home mortgage	
		Home equity loan	
Human capital	€1,400,000	Lifetime consumption needs (present value)	€4,200,000
Pension value	€500,000		
		Bequests	€400,000
Total Assets	€5,920,000	Total Liabilities	€5,240,000
		Net Wealth	€680,000

Source: Private Wealth Management: Risk Management for Individuals. CFA Curriculum by David Blanchett, David Cordell, Michael Finke and Tom Idzorek.

Quantifying the Value of Guaranteed Income



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The “Value” of an Immediate Annuity

Age	Payment	Probability of Survival	Discount Rate	Factor	Cost
65	$1,000	100.00%	2.26	1.000	$1,000
…	…	…	…	…	…
70	$1,000	99.83%	2.86	0.870	$870
…	…	…	…	…	…
75	$1,000	99.01%	3.06	0.734	$734
…	…	…	…	…	…
80	$1,000	96.38%	3.06	0.612	$612
…	…	…	…	…	…
85	$1,000	88.74%	2.99	0.491	$491
…	…	…	…	…	…
90	$1,000	70.02%	2.99	0.336	$336
…	…	…	…	…	…
95	$1,000	39.91%	3.14	0.158	$158
…	…	…	…	…	…
100	$1,000	13.19%	3.14	0.045	$45
…	…	…	…	…	…
105	$1,000	2.04%	3.14	0.006	$6
…	…	…	…	…	…
110	$1,000	0.17%	3.14	0.000	$0
				Sum	**$19,223**
				Payout%	**5.20%**

The Value of $1 of Guaranteed Income

Female, Real Benefit

Current Age	Years Until Start: 30	25	20	15	10	5	0
40	8.3	11.0	14.2	17.7	21.6	25.9	30.7
45	6.5	9.2	12.2	15.7	19.6	23.9	28.7
50	4.8	7.3	10.2	13.6	17.4	21.7	26.5
55	3.1	5.3	8.1	11.3	15.1	19.4	24.2
60	1.6	3.4	5.9	9.0	12.7	16.9	21.7
65	0.7	1.9	3.9	6.7	10.2	14.3	19.1

Joint Couple Same Age, Real Benefit

Current Age	Years Until Start: 30	25	20	15	10	5	0
40	10.1	13.0	16.3	19.8	23.8	28.1	32.9
45	8.3	11.2	14.4	18.0	21.9	26.3	31.1
50	6.3	9.2	12.4	15.9	19.9	24.2	29.0
55	4.3	7.0	10.2	13.7	17.7	22.0	26.8
60	2.4	4.8	7.8	11.3	15.2	19.6	24.4
65	1.0	2.7	5.4	8.8	12.7	17.0	21.8

Female, Nominal Benefit

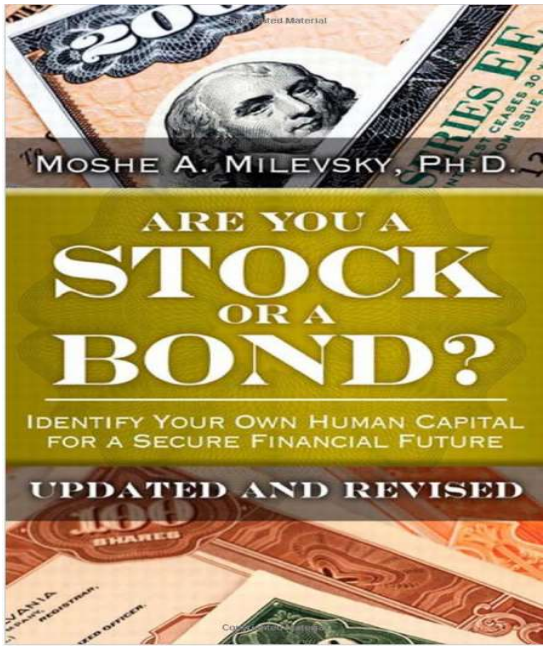
Current Age	Years Until Start: 30	25	20	15	10	5	0
40	3.9	5.5	7.5	10.0	13.1	16.9	21.5
45	3.1	4.7	6.7	9.2	12.3	16.0	20.7
50	2.4	3.8	5.7	8.2	11.2	15.0	19.6
55	1.6	2.9	4.7	7.0	10.0	13.8	18.4
60	0.9	1.9	3.6	5.8	8.7	12.3	16.9
65	0.3	1.1	2.4	4.4	7.2	10.8	15.4

Joint Couple Same Age, Nominal Benefit

Current Age	Years Until Start: 30	25	20	15	10	5	0
40	4.6	6.4	8.5	11.0	14.2	18.0	22.6
45	3.9	5.6	7.7	10.3	13.4	17.2	21.9
50	3.1	4.8	6.9	9.4	12.6	16.4	21.0
55	2.2	3.8	5.8	8.4	11.5	15.3	19.9
60	1.3	2.7	4.7	7.2	10.3	14.1	18.7
65	0.5	1.6	3.3	5.7	8.8	12.6	17.2

Impact on Risk Levels

The Risk of Household Assets



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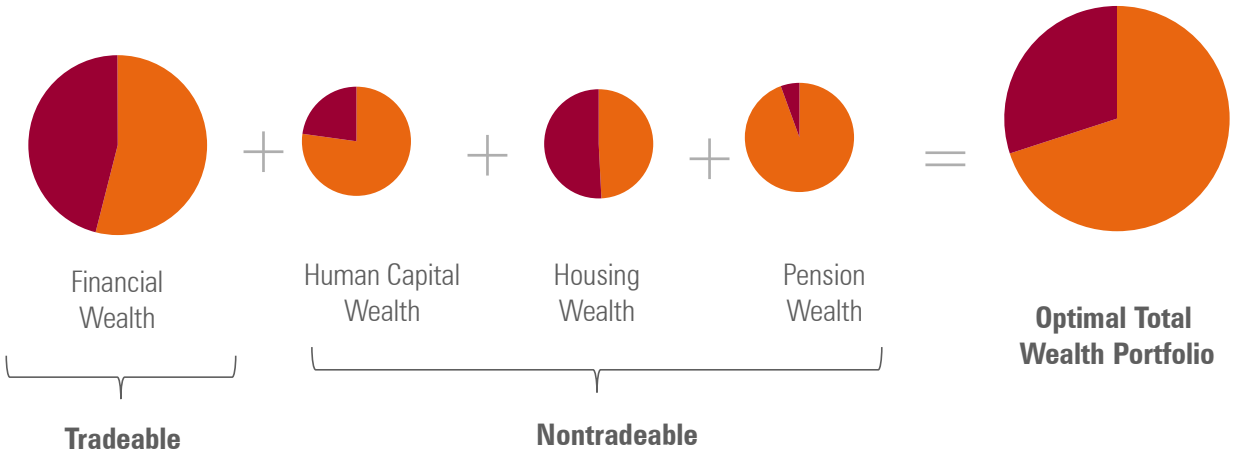
Using Financial Wealth as a Completion Portfolio



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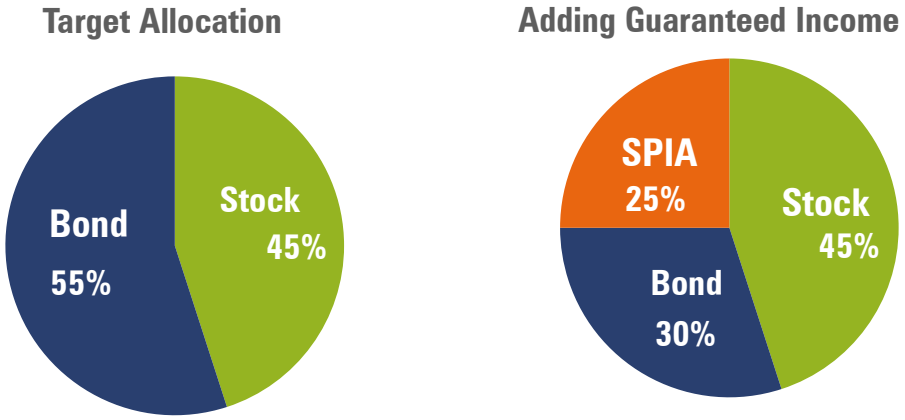
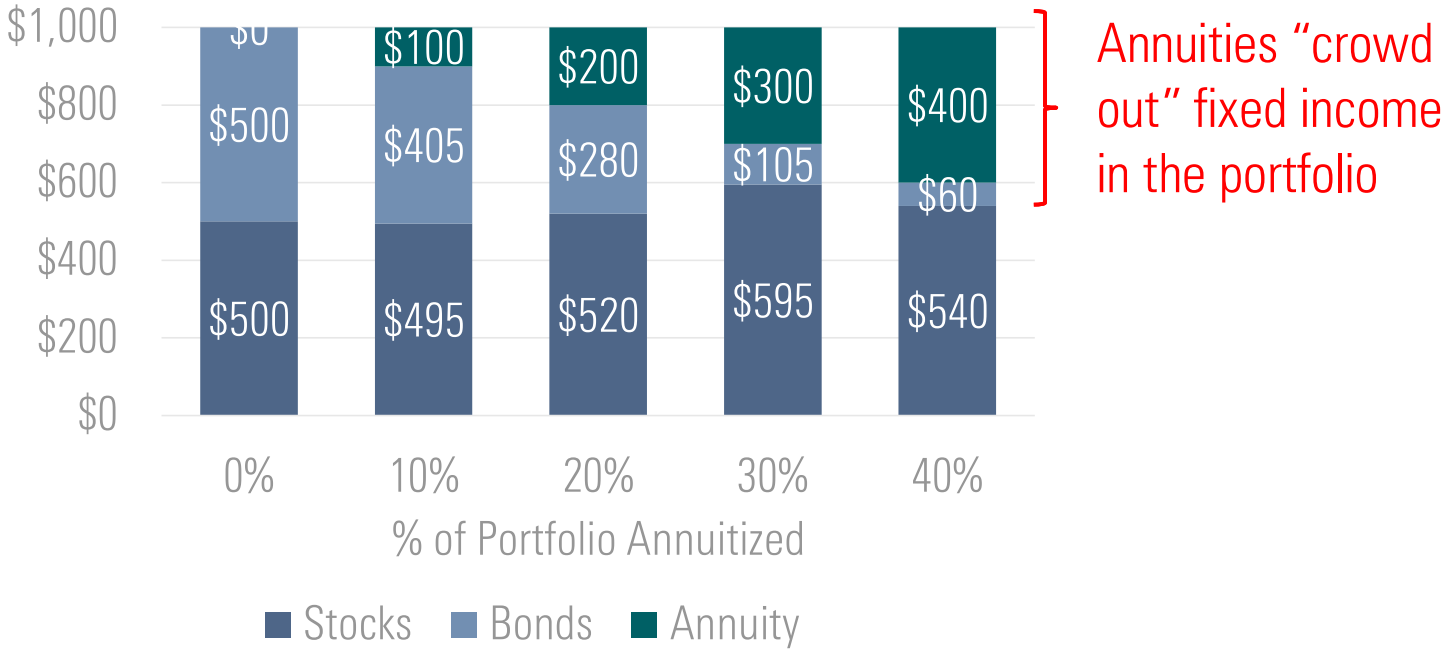
Guaranteed Income and Optimal Risk Levels (In Theory)



- The remaining non-annuity portfolio now has a 60% equity allocation; however, the total wealth allocation from an income perspective, after considering the Single Premium Immediate Annuity (SPIA), is still 45% equities.

Annuities "Crowd Out" Fixed Income



Source: "Asset Location with Annuities" by David Blanchett and Michael Finke. White Paper

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Who Benefits Most from Guaranteed Income?

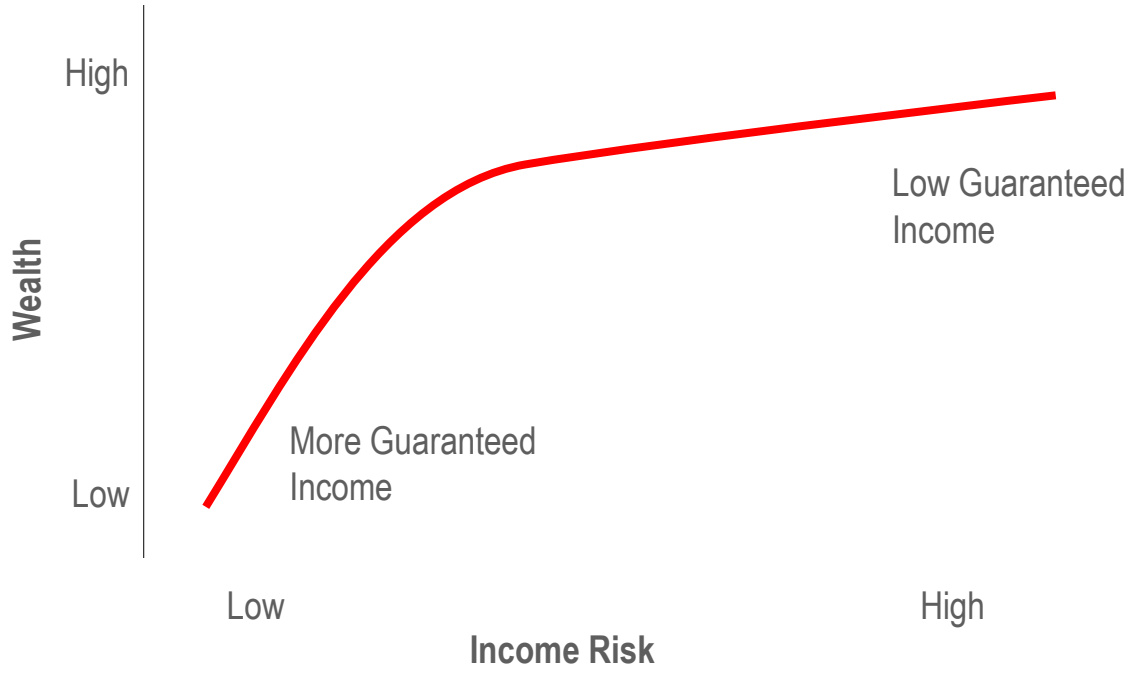
Managing Household Risks

Exhibit 10 Risk Management Techniques

Loss characteristics	High frequency	Low frequency
High severity	Risk avoidance	Risk transfer
Low severity	Risk reduction	Risk retention

Source: Private Wealth Management: Risk Management for Individuals. CFA Curriculum by David Blanchett, David Cordell, Michael Finke and Tom Idzorek.

An Efficient Frontier Perspective



Source: Private Wealth Management: Risk Management for Individuals. CFA Curriculum by David Blanchett, David Cordell, Michael Finke and Tom Idzorek.

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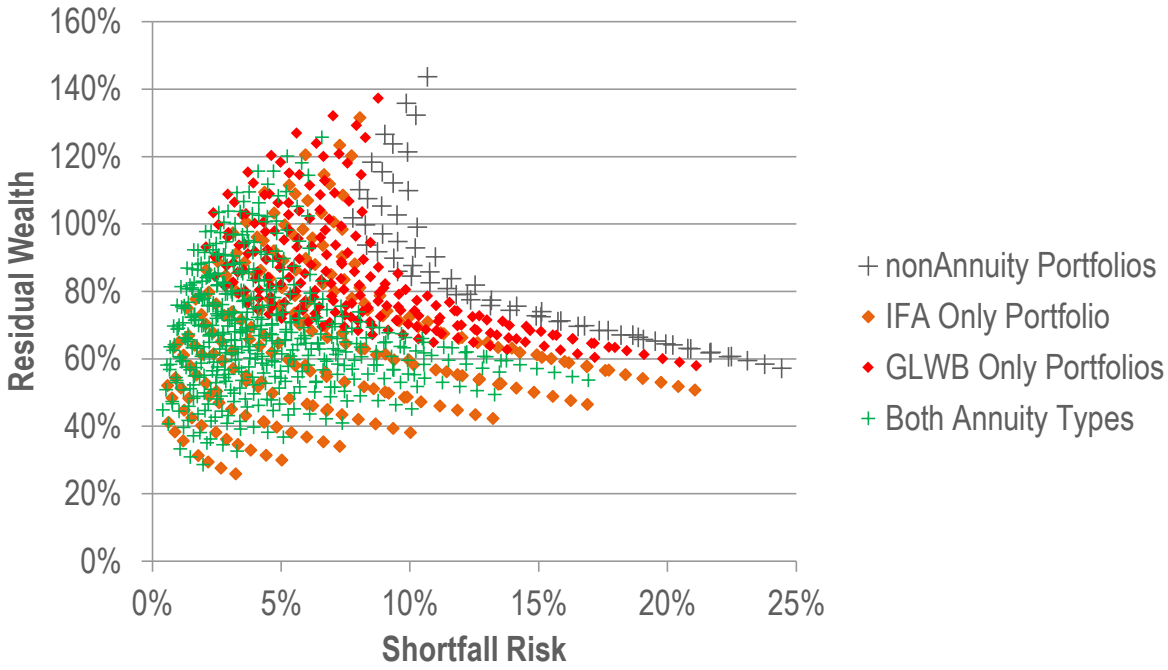
Efficient Frontier Combinations



Source: "Low Bond Yields and Efficient Retirement Income Portfolios" by David Blanchett, *Journal of Retirement*

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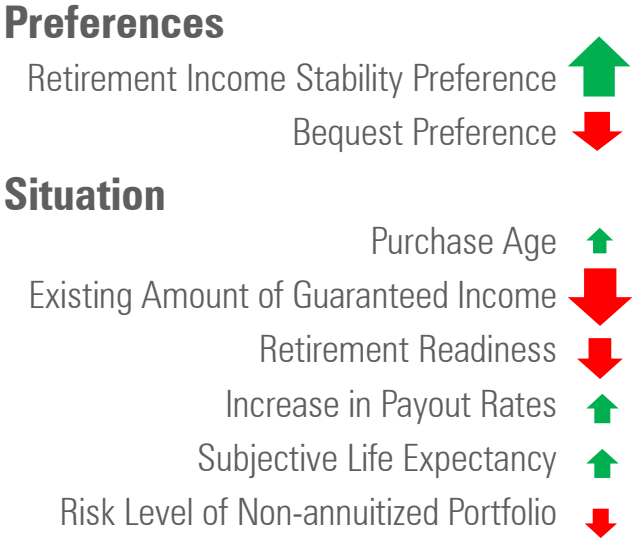
Who Could Potentially Benefit from (More) Guaranteed Income?



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The Mutual Fund Puzzle

Let's Talk ~~Annuities~~ Personal Pensions

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The Mutual Fund Puzzle

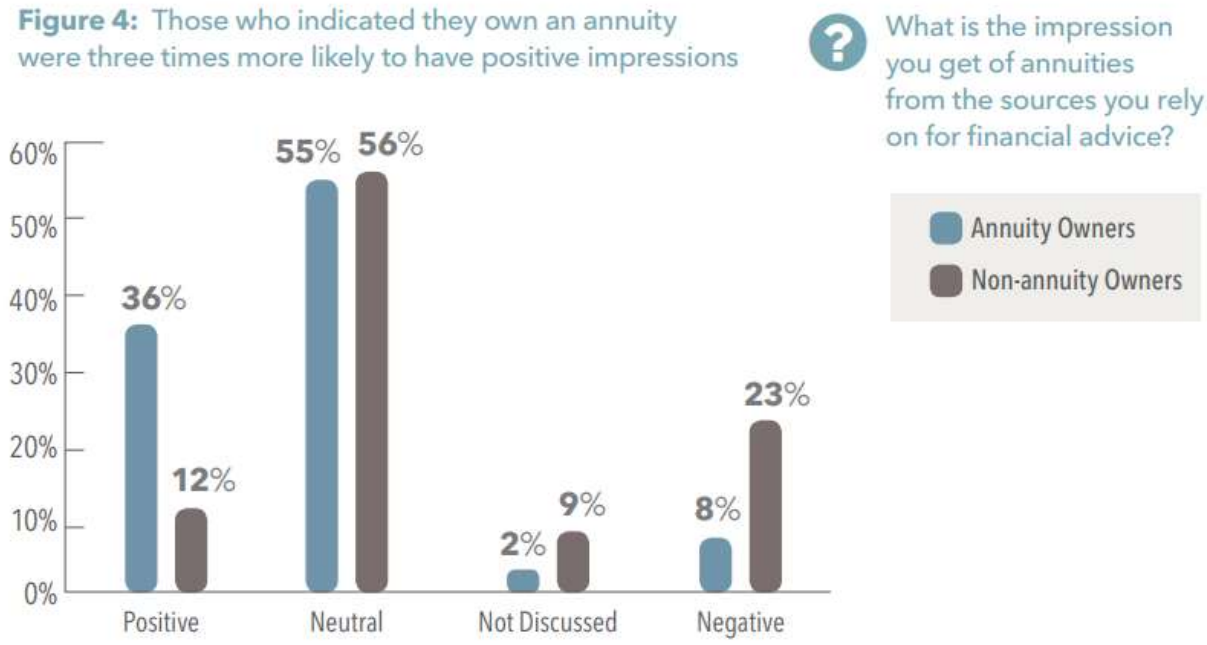
Mutual funds…

- can have incredibly high fees with expense ratios that exceed 4% per year, and that doesn't include sales commissions
- most underperform their benchmarks
- many financial advisors who recommend or sell them aren't fiduciaries

The Expected Value of an Annuity

Ownership and Annuity Impressions

Figure 4: Those who indicated they own an annuity were three times more likely to have positive impressions



Source: Genworth 2012 Future of Retirement Income Study

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Comparing Portfolios and Annuities

Portfolios

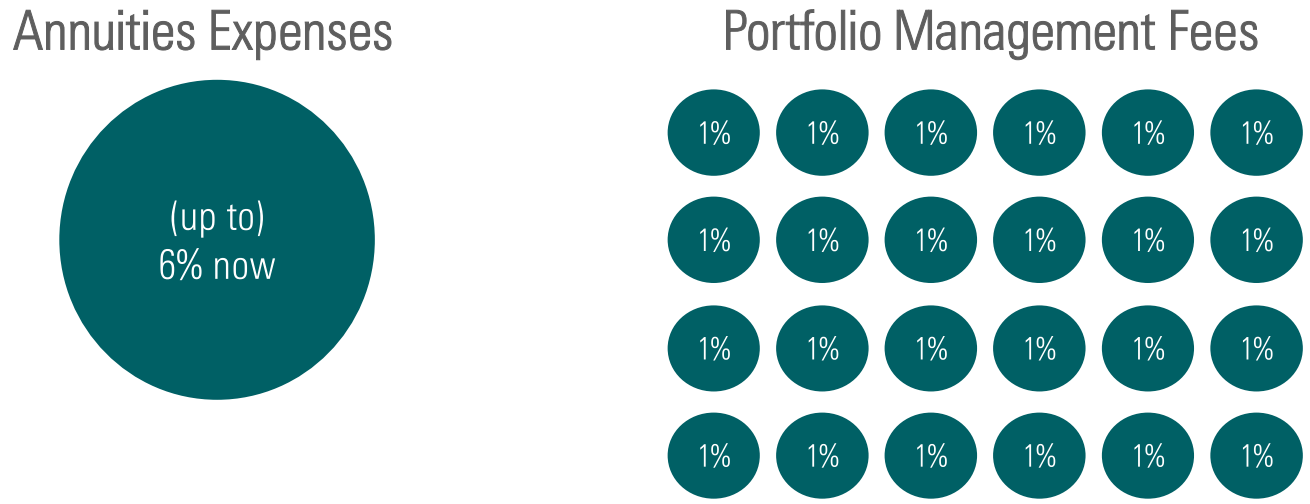
Annuities

Fees and Annuity Allocations

		Scenarios with:	
Annuity Fee	Portfolio Fee	No Annuity Allocation	Maximum Annuity Allocation
Low	Low	42%	56%
Mid	Low	52%	34%
High	Low	70%	24%
Low	Mid	17%	80%
Mid	Mid	36%	58%
High	Mid	44%	48%
Low	High	0%	100%
Mid	High	12%	83%
High	High	24%	67%

Source: "The Value of Allocating to Annuities" by David Blanchett, *Journal of Retirement*

Annuities are Expensive?



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Guaranteed Income and Low Interest Rates

10 Year Government Bonds Yields (as of 12/15/20)

Government Bonds 9:07 PM EST 12/15/20

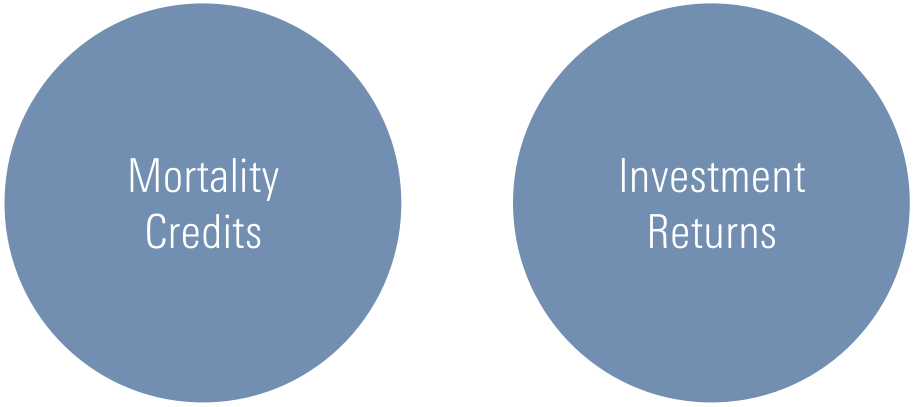
10-year bonds.

COUNTRY	YIELD(%)	COUPON(%)
U.S.	0.909	0.875
Germany	-0.609	0.000
U.K.	0.262	4.750
Japan	0.004	0.100
Australia	0.986	1.000
China	3.309	2.680
New Zealand	0.890	1.500
France	-0.373	0.000
Italy	0.523	0.900
Spain	-0.017	1.250

*in basis points

Source: https://www.wsj.com/market-data/quotes/bond/BX/TMUBMUSD10Y

Annuity Payout Components (Normally)



(only annuitants get this)

(everyone gets this)

Annuity Payout Components (Today)

(only annuitants get this)

(everyone gets this)

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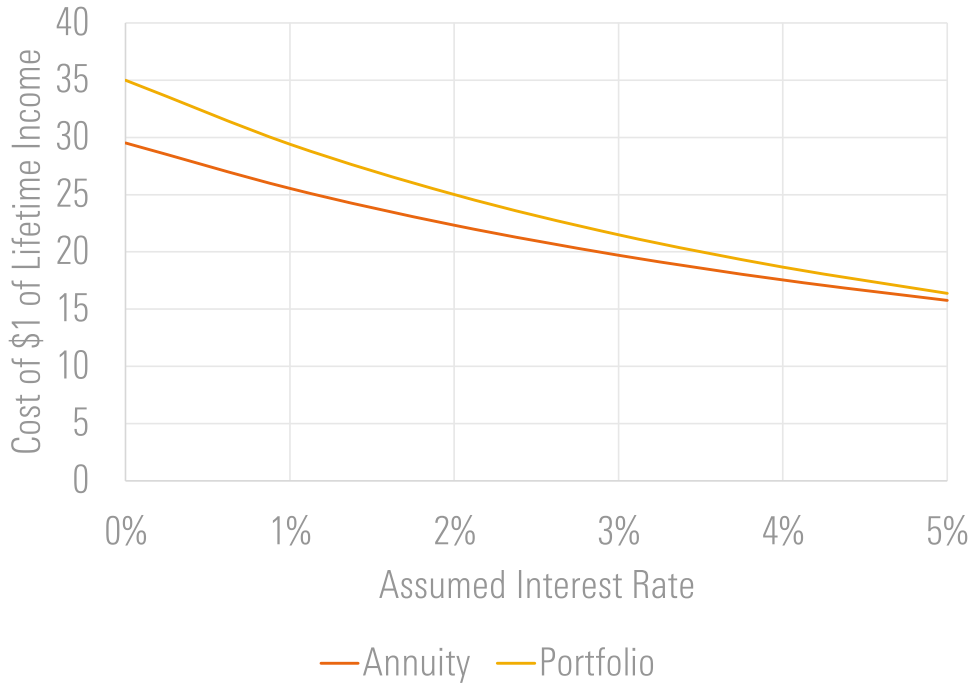
Annuities are on Sale… (Relatively Speaking)



Source: Author's Calculations

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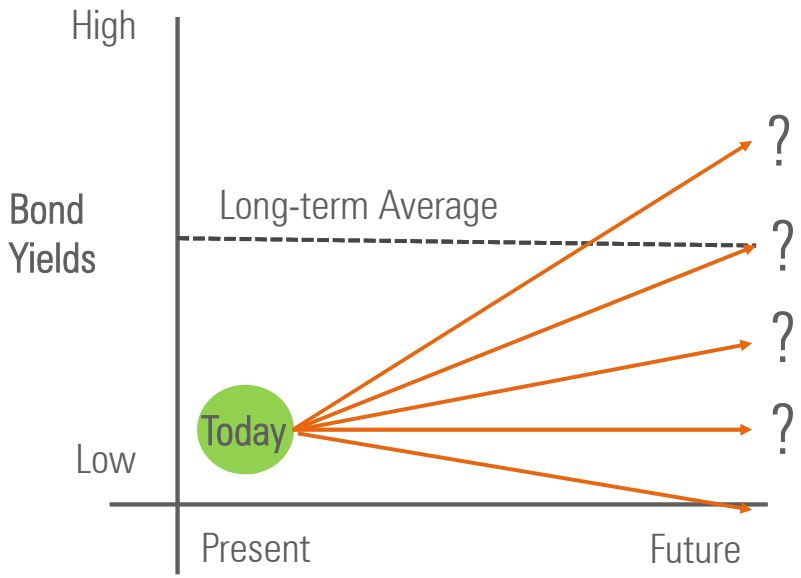
Where are Interest Rates Headed?



Source: Author's Calculations

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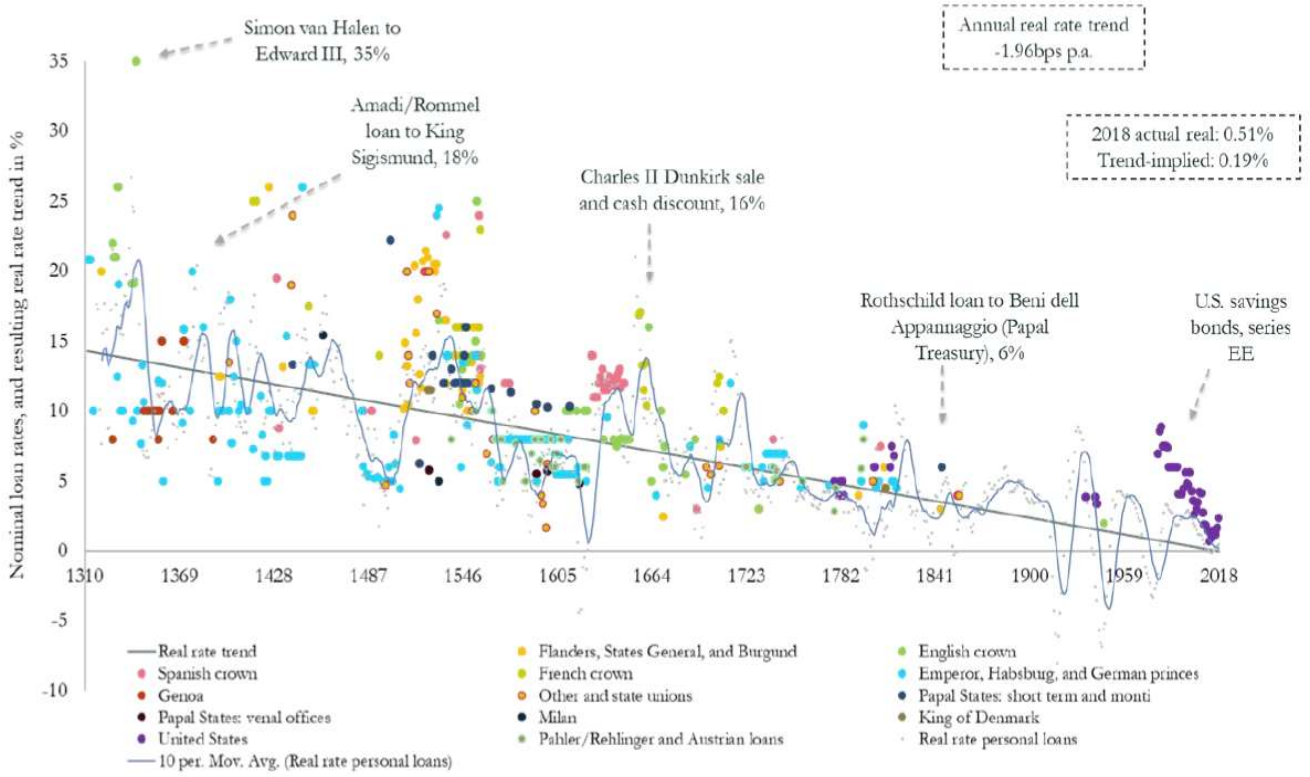
The Looooooooooong Term Trend



Source: https://www.bankofengland.co.uk/working-paper/2020/eight-centuries-of-global-real-interest-rates-r-g-and-the-suprasecular-decline-1311-2018

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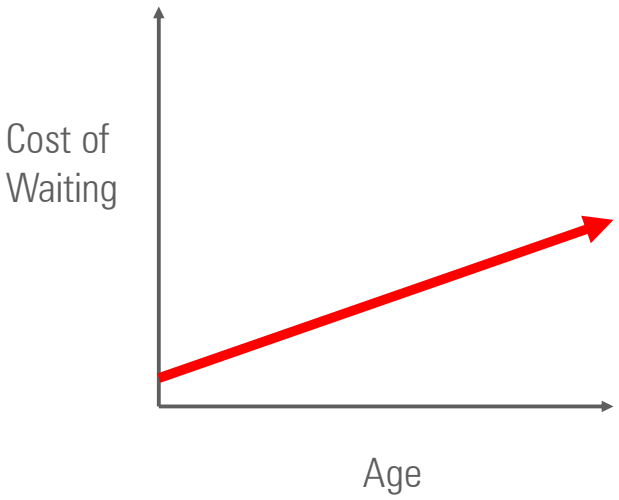
The Cost of Waiting for Rates to Rise

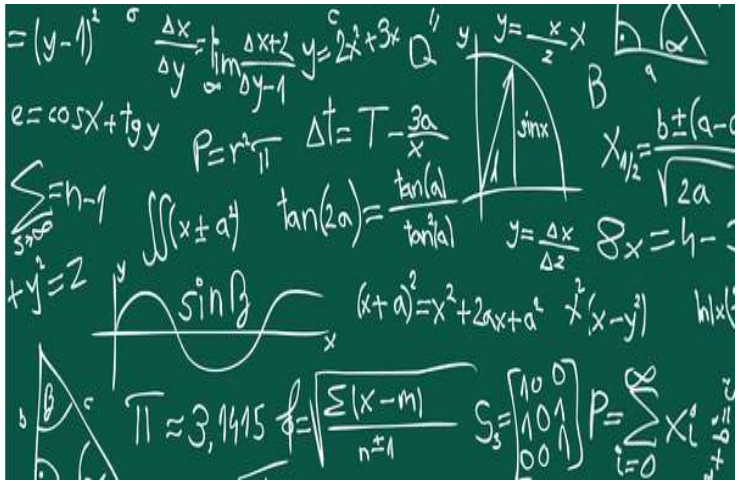


Conclusions

How Do You Think About Allocating to Guaranteed Income?

Guaranteed Income as Part of a Retirement Strategy

Determining the Right Strategy



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Questions

Research: www.davidmblanchett.com