Beyond Risk Tolerance:

What Does a Retiree's Funded Ratio Say About Risk Capacity?

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Important information and disclosures

Fund objectives, risks, charges and expenses should be carefully considered before investing. A summary prospectus, if available, or a prospectus containing this and other important information can be obtained by calling 800-787-7354 or by visiting www.Russell.com. Please read a prospectus carefully before investing.

Please remember that all investments carry some level of risk, including the potential loss of principal invested. They do not typically grow at an even rate of return and may experience negative growth. As with any type of portfolio structuring, attempting to reduce risk and increase return could, at certain times, unintentionally reduce returns.

Model Strategies represent target allocations of Russell funds; these models are not managed and cannot be invested in directly. Model Strategies are exposed to the specific risks of the funds directly proportionate to their fund allocation. The funds comprising the strategies and the allocations to those funds have changed over time and may change in the future.

Diversification and strategic asset allocation do not assure profit or protect against loss in declining markets.

Investments that are allocated across multiple types of securities may be exposed to a variety of risks based on the asset classes, investment styles, market sectors, and size of companies preferred by the investment managers. Investors should consider how the combined risks impact their total investment portfolio and understand that different risks can lead to varying financial consequences, including loss of principal. Please see a prospectus for further details.

Real Assets such as real estate, commodities and infrastructure are volatile investments on their own and should form only a small portion of a diversified portfolio to aid in diversification and as a potential hedge against inflation. Real Assets may not be suitable for all investors.

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May Lose Value
No Bank Guarantee

The opportunity?

10,000

baby boomers turn 65 each day

Source: Pew Research Center, The Databank, www.pewresearch.org, 11/25/11

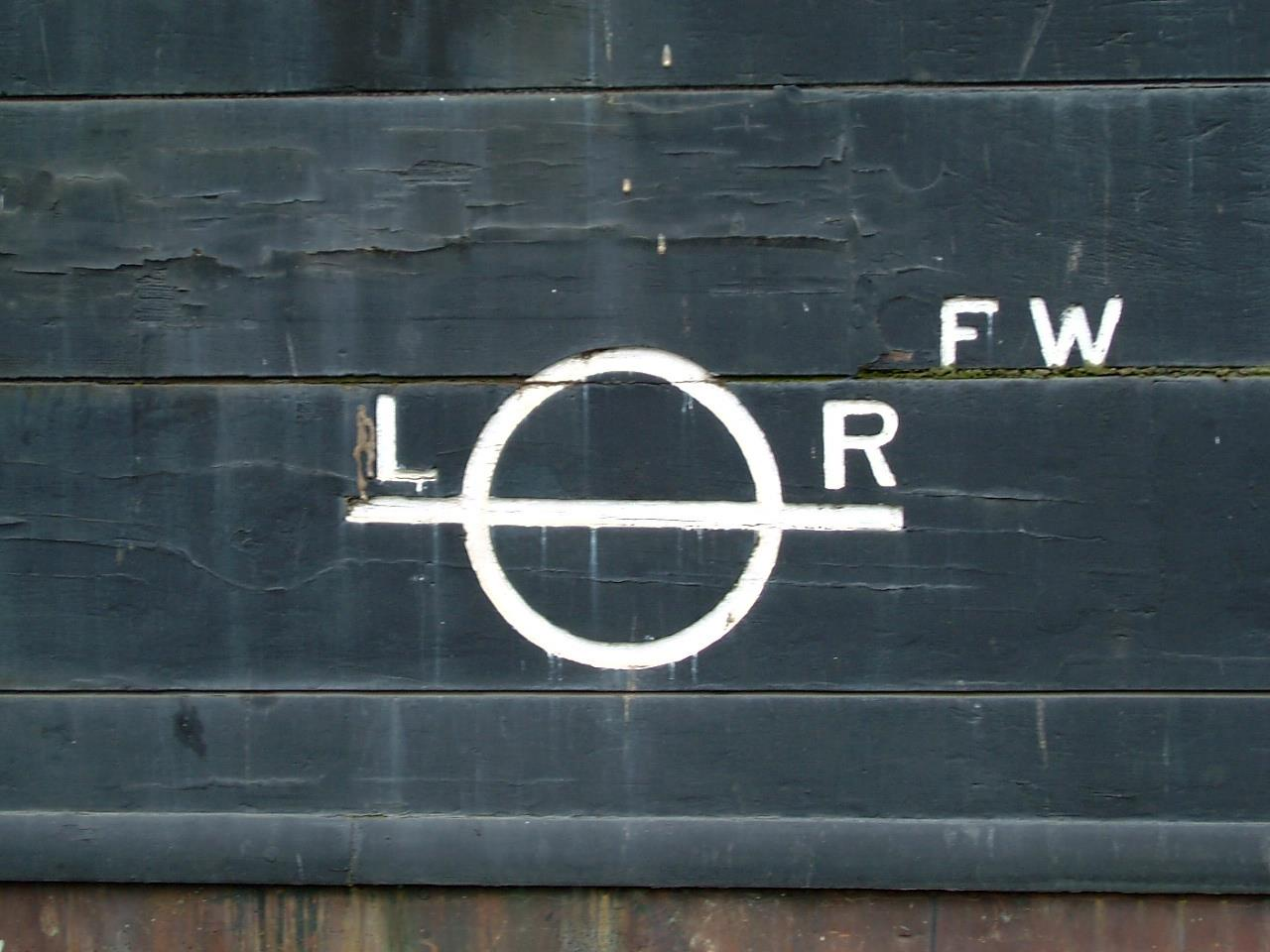
"I'm worried about all those news stories and that our investments lost some money last month. Are we still going to be okay?

61%

of Boomers are **more afraid of running out of money** than they are of **dying.**

[1]Allianz Life Insurance survey cited in Ignites.com article “Boomers Dread Retirement Shortfall: Survey,” June 21, 2010.

“That was a great meeting! I feel so much better than I did going in.”


FW
L R

What is **risk** for an investor living in retirement?

Is risk really about *this*?

$$\delta = \sqrt{\frac{1}{N}\sum_{i=1}^{N}(x_i - \mu)^2}$$

It's about **running out of money** before running out of life.

What do investors want from their retirement income strategies?

Consistency	"Investment income may fluctuate, but my bills don't."
Sustainability	"My money needs to last as long as I do."
Flexibility	"What happens when my situation changes?"

No perfect product solution for retirement

All choices have tradeoffs

	Consistency	Sustainability	Flexibility
Annuity* (fixed or variable)	✓	✓	⊘
Bond ladder	⊘	✓	✓
Dividend paying stocks / yield	⊘	✓	✓
Total return w/ systematic withdrawals	✓	⊘	✓

*Annuity guarantees are subject to the claims-paying ability of the issuing insurance company.


YIELD
CAUTION

Investing in retirement is different

Accumulation Objective

1. Reach a wealth target on a specific date
2. Manage volatility

Retirement Objective

1. Make your money last
2. Allow upside if possible

Investment risk ← Key Risks → Investment risk
+ Longevity risk
+ Inflation risk


TF
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What lessons can we learn from institutional investors?

1 Use the **Funded Ratio** to evaluate, advise, and monitor portfolio and planning decisions

2 More explicitly manages **Assets** (portfolio) to future **Liabilities** (goals)

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How do you calculate a funded ratio?

Funded Ratio = $\dfrac{\textbf{Assets*}}{\textbf{Liabilities*}}$

Liabilities* (Spending Need)

*Actuarial net present value

Example: Samuel and Eliza Plimsoll

Samuel is 70 and Eliza is 68

Income Assets

Social Security = $15K and $10K
COLA = 2.0%

Pension = $17K
COLA = 1.5%
Survivorship = 75%

Portfolio Assets

Taxable $105K
Nontaxable (Roth IRA) $30k
Tax Deferred (IRA) $315K

Spending Goal

$50K each year, after taxes
COLA = 2.0%

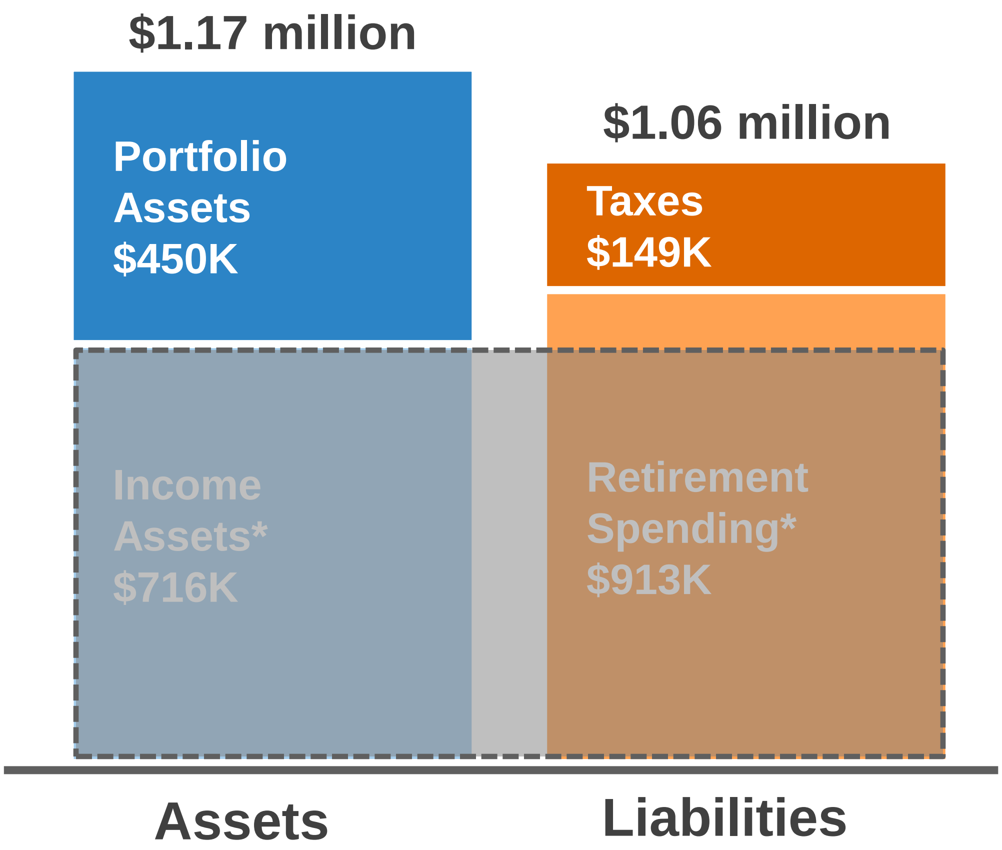
Tax Rates

Effective income tax = 15%
Effective cap gains = 15%

Hypothetical example is for illustration only.

The planning problem

Map assets to liabilities

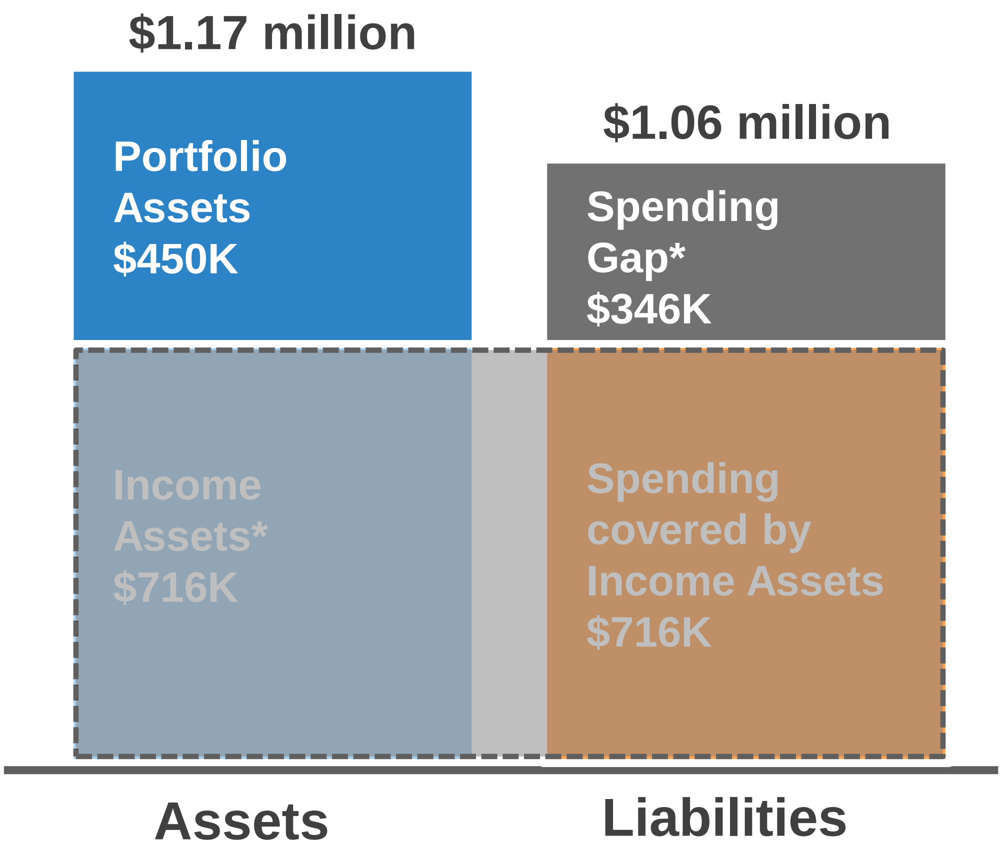


Funded Ratio = $\frac{\$1.17 \text{ million}}{\$1.06 \text{ million}}$

*Actuarial net present value

The planning problem

Map assets to liabilities



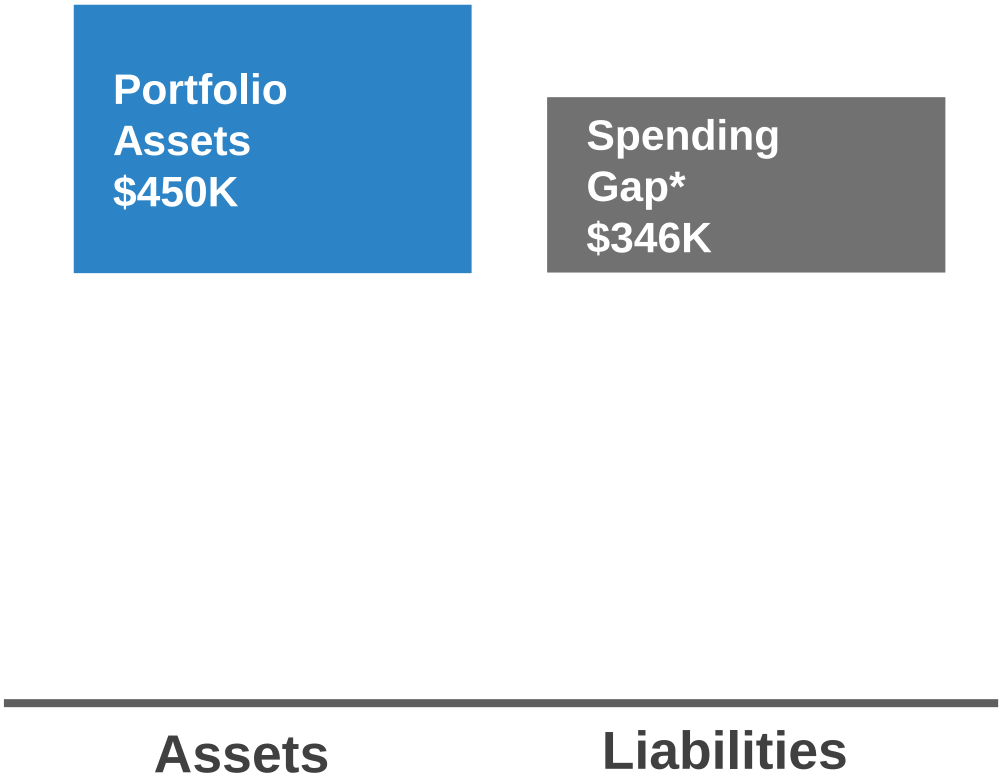
$$\text{Funded Ratio} = \frac{\$1.17 \text{ million}}{\$1.06 \text{ million}}$$

110% Funded

*Actuarial net present value

The investment problem

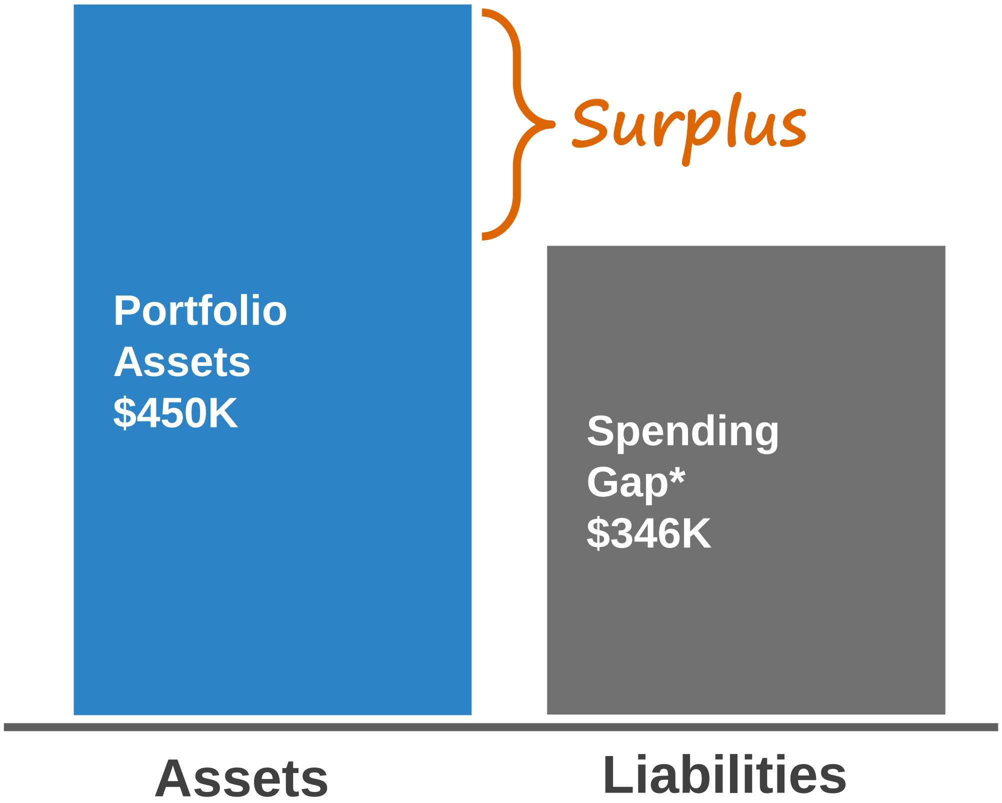
Manage assets to liabilities



*Actuarial net present value

The investment problem

Manage assets to liabilities



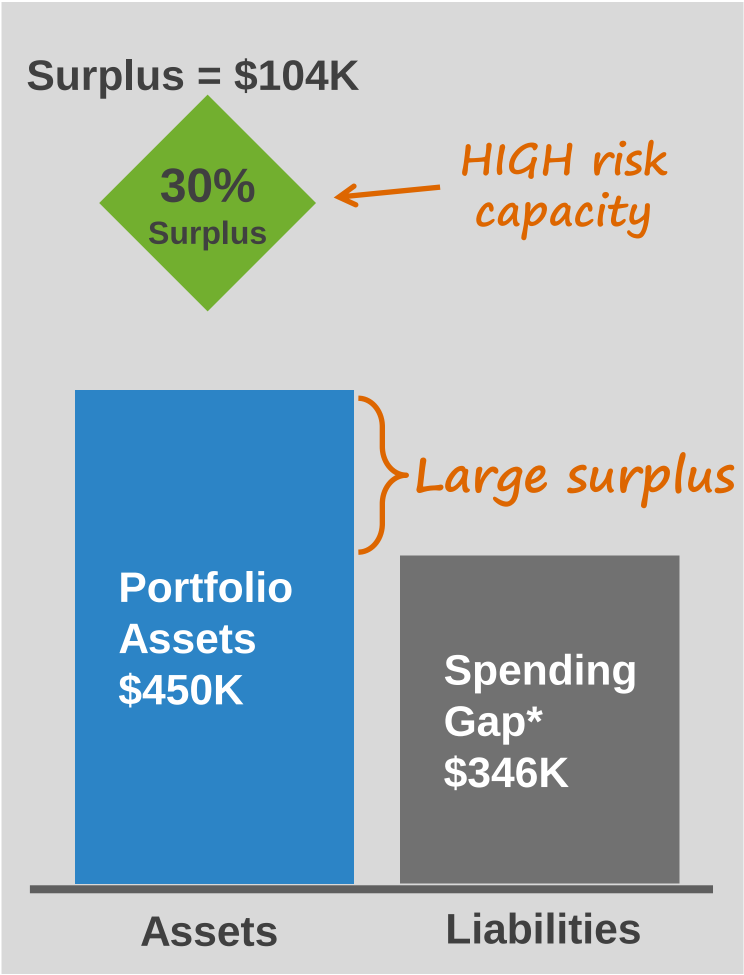
Surplus = $104K

30%
Surplus

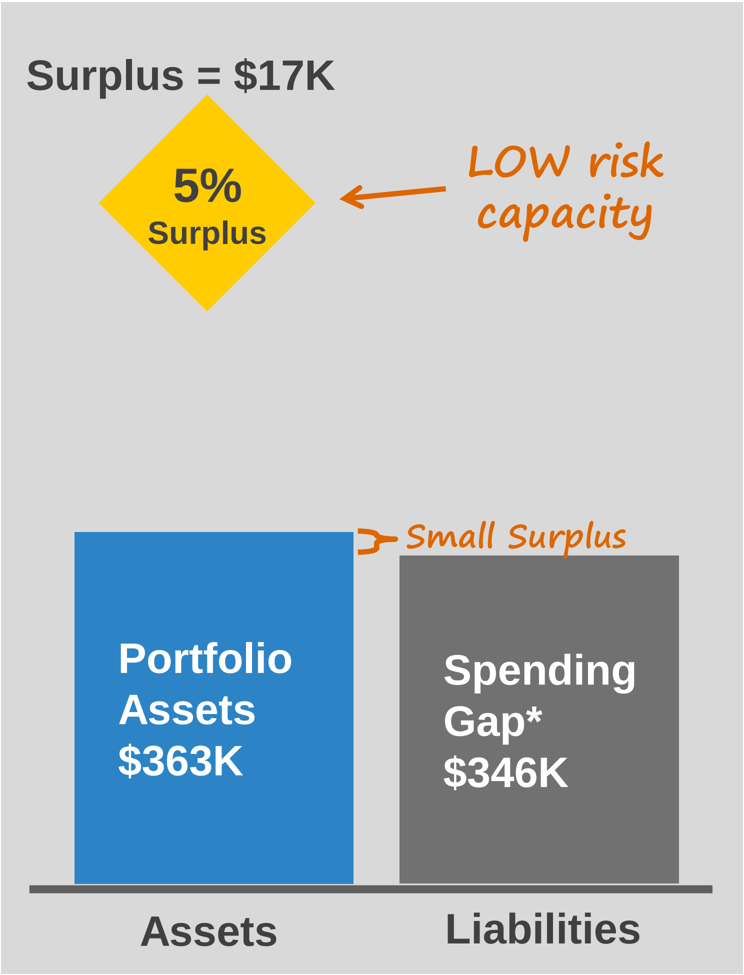
*Actuarial net present value

Should these clients be invested the same?

Samuel & Eliza Plimsoll

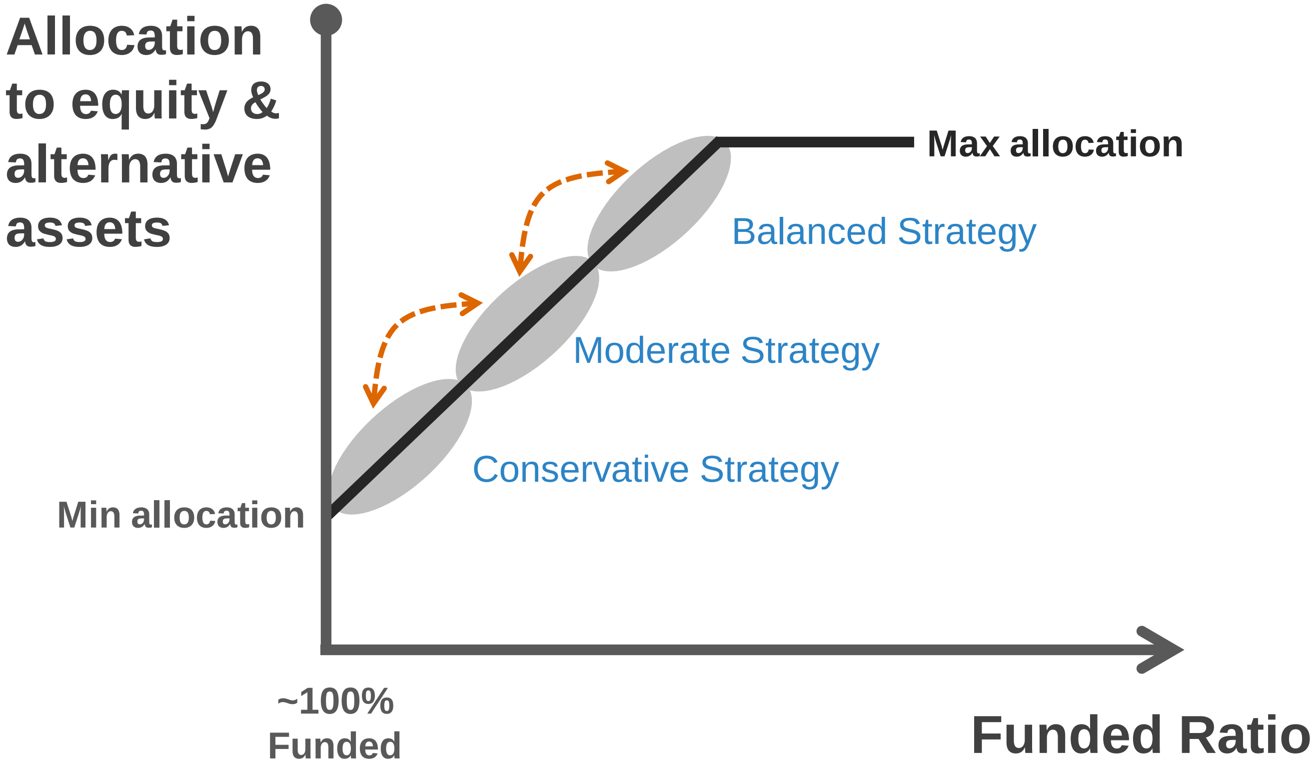


Edward & Sarah Smith



*Actuarial net present value

Base investors' asset allocation on their capacity to experience investment volatility



Hypothetical example is for illustration only.

Accumulation | **Retirement**

Risk

Standard Deviation → **Shortfall**

How often?
How much?

vs.

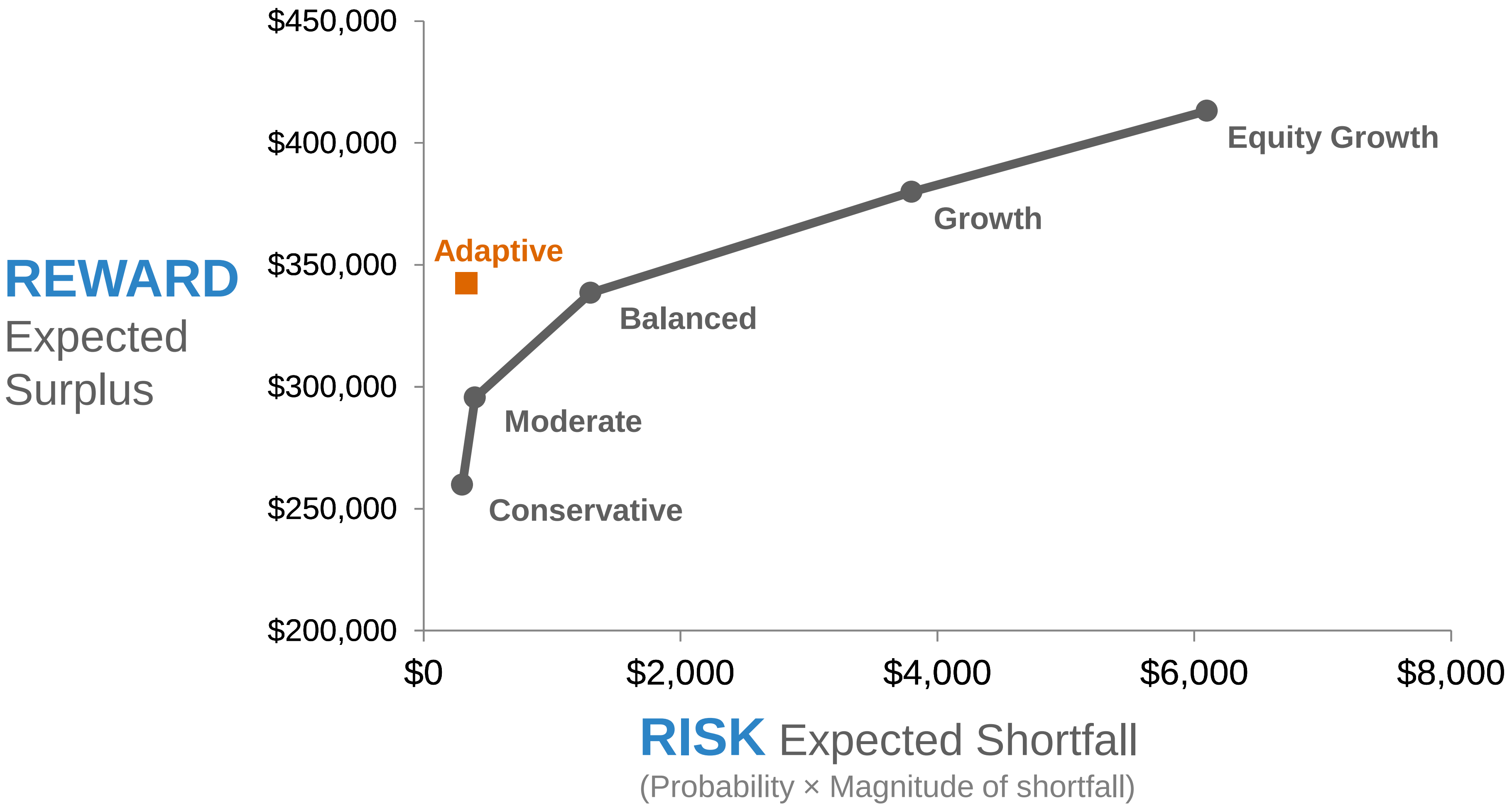
Reward

Expected Return → **Surplus**

Bequests
Unplanned expenses
Improved lifestyle

Adapting the portfolio can improve results

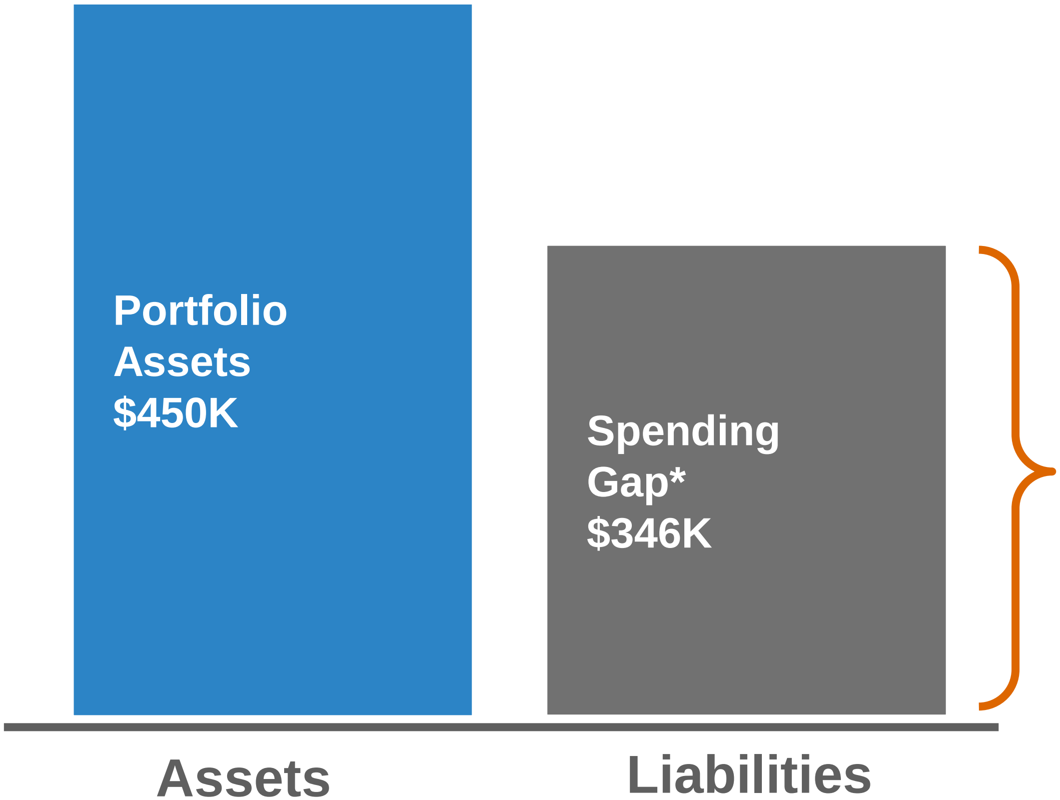
Efficient frontier chart for Plimsoll example



This hypothetical example is for illustration only and is not intended to reflect the return of any actual investment. Investments do not typically grow at an even rate of return and may experience negative growth.

Here's another way to think about an investor's liability

It approximates the cost of an **immediate lifetime annuity**

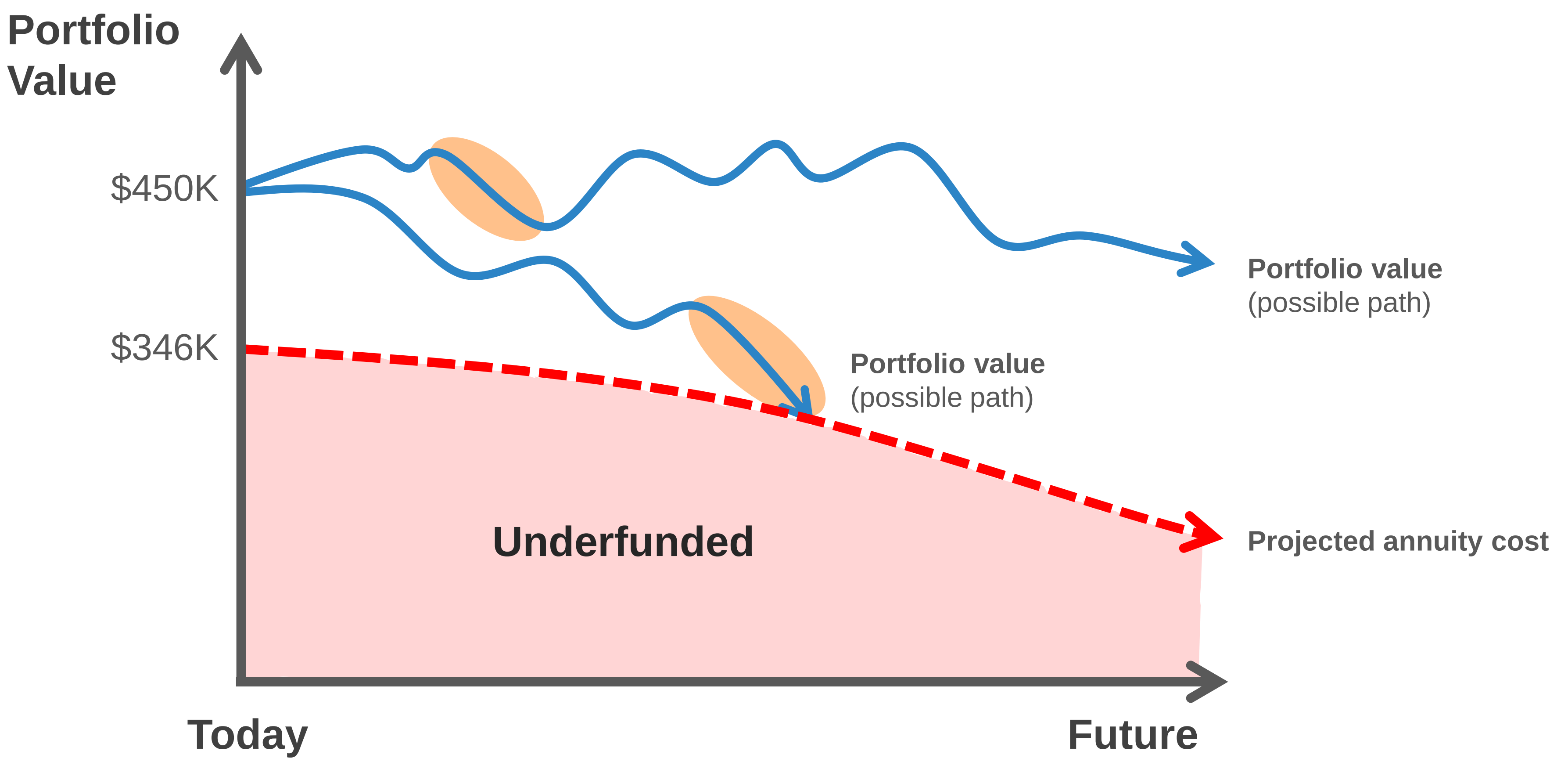


Cost is determined by

- **Age(s)**
- **Gender(s)**
- **Single/joint status**
- **Mortality data**
- **Yield curves**
(discount rate)

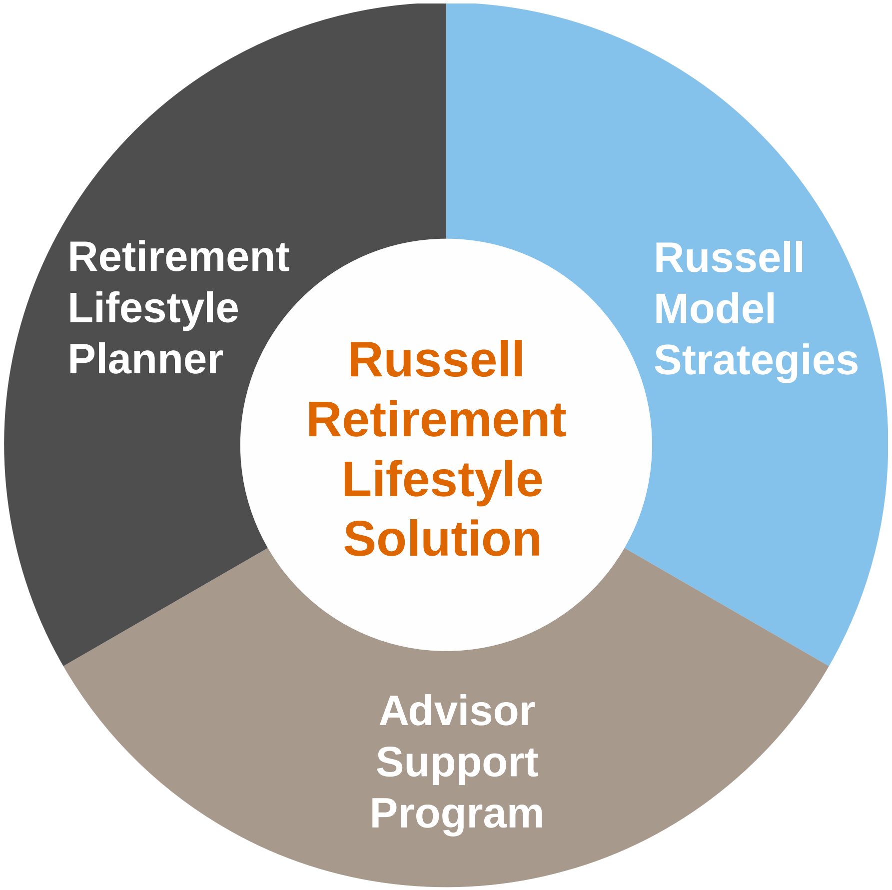
*Actuarial net present value

Adapt the Plimsolls' portfolio through time to stay funded



IMPORTANT: This chart is for illustrative purposes only. The projections or other information generated by Russell regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results and are not guarantees of future results. Source: Russell Investments

What does the program offer?



Retirement Lifestyle Planner

- Easy to use web-based tool

Russell Model Strategies

- Globally diversified portfolios

Advisor Support Program

- Education for you and your clients

Russell Retirement Lifestyle Solution refers to Russell Investments' planning tool, model strategies and advisor support program. Although designed to do so, the Russell Retirement Lifestyle Solution may not adequately address a retiree's lifestyle needs in retirement. Investments and strategies are not guaranteed by Russell Investments.

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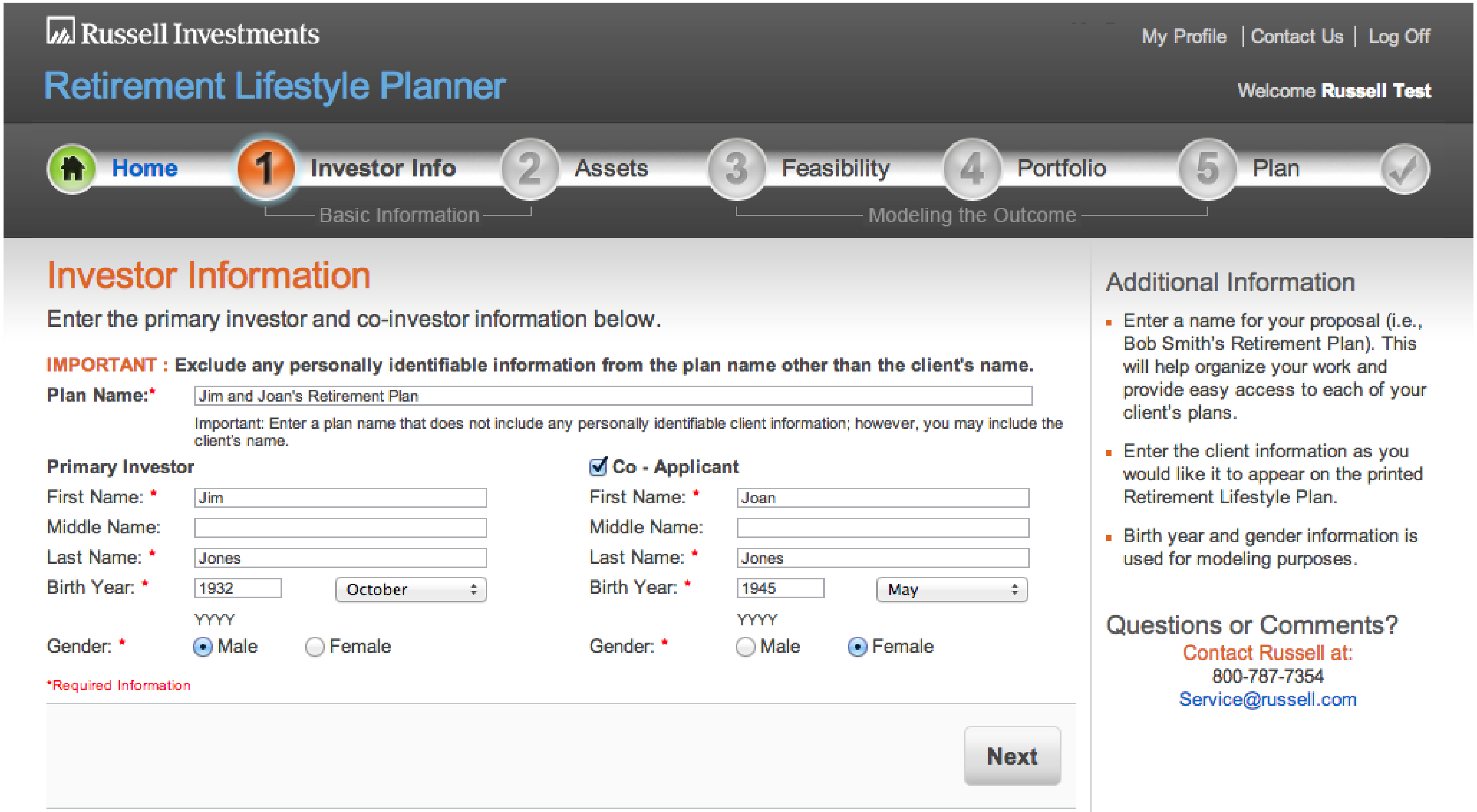
Use the Retirement Lifestyle Planner



Determine a feasible spending plan

Map client to model strategy based on risk capacity

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Retirement Lifestyle Planner

Welcome **Austin Dienst**

Home | 1 Investor Info | 2 Assets | 3 Feasibility | 4 **Portfolio** | 5 Plan

Basic Information — Modeling the Outcome

Investor(s): Jim and Joan Jones **Plan Name:** Jim and Joan's Retirement Plan

Portfolio Implementation

Evaluate the portfolio options available to your client using the diagnostics charts below and select an investment approach that will best meet your clients unique needs.

Spending Plan Summary

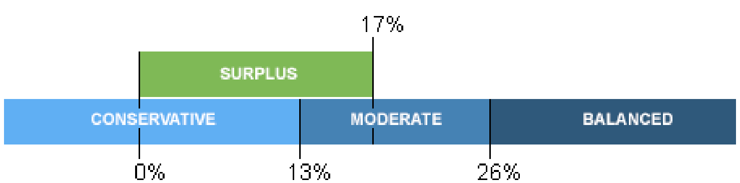
Annual Spending Goal:	$50,900
Funded Ratio:	112%

View Spending Plan Details

Asset Allocation Mapping

Portfolio Assets:	$1,000,000	
Spending Gap (In today's dollars):	- $853,173	
Portfolio Surplus:	$146,827	(17% Surplus)

Asset Allocation Alignment:



Based on your Portfolio Surplus and your capacity for portfolio risk, we have mapped you to a diversified portfolio that will help you meet your goals when used in an Adaptive Investing Strategy.

Benefits of Adaptive Investing

Russell's Adaptive Investing™ approach helps you **balance risk and reward** in your client's portfolio based on their unique situation.

Russell's Adaptive Investing approach **offers a different approach to managing risk in retirement based on the potential surplus or deficit of the portfolio** compared to the spending gap and can help suggest an asset allocation to consider based on these factors.

Both your client's funded ratio and the size of their portfolio surplus or deficit will change through time as investment values and circumstances change. Russell Adaptive Investing assumes that you will **conduct a periodic re-evaluation of your client's plan and change their asset allocation through time, as their unique situation changes.**

Learn more about Adaptive Investing

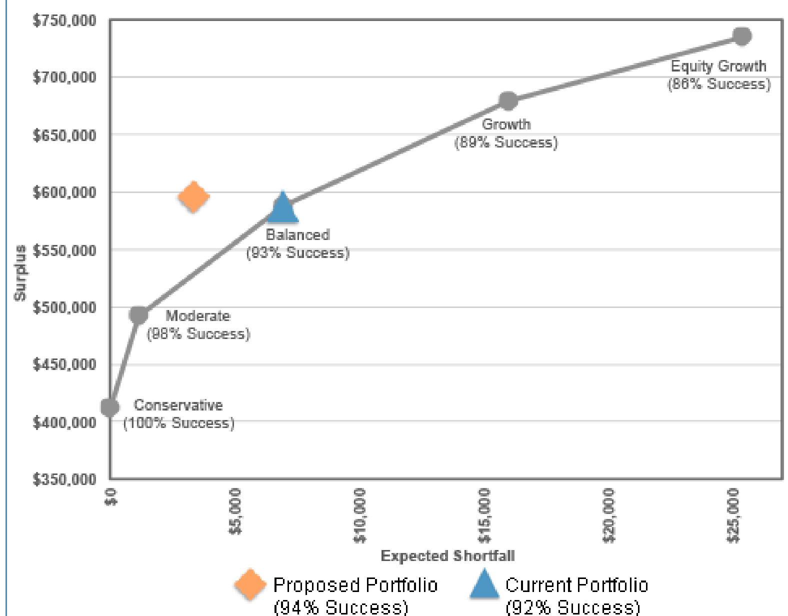
Compare efficiency of portfolio choices

Investment Allocation

Total Investment Withdrawal Needed $48,998	Proposed Portfolio	Current Portfolio ☐ Show
Portfolio Assets		
Asset Allocated Portfolio	100.0 %	
Investment Amount:	$1,000,000	
Portfolio Surplus:	$103,880	
Surplus Percentage:	12%	
Adaptive?	☑	
Initial Allocation:	Adaptive	
Initial Withdrawal Amount	$26,350	
Initial Withdrawal Rate:	2.6%	
Income Assets		
Simulated Bond Ladder	0.0 %	
Simulated Immediate Lifetime Annuity	0.0 %	

Efficient Frontier | **Projected Wealth**

Taking a different approach to risk and reward, we've plotted our 5 core model strategies along an efficient frontier that balances expected surplus vs expected shortfall. You can use this chart to help see how the current and proposed portfolios compare to these static models. Learn more



Explain this chart to me

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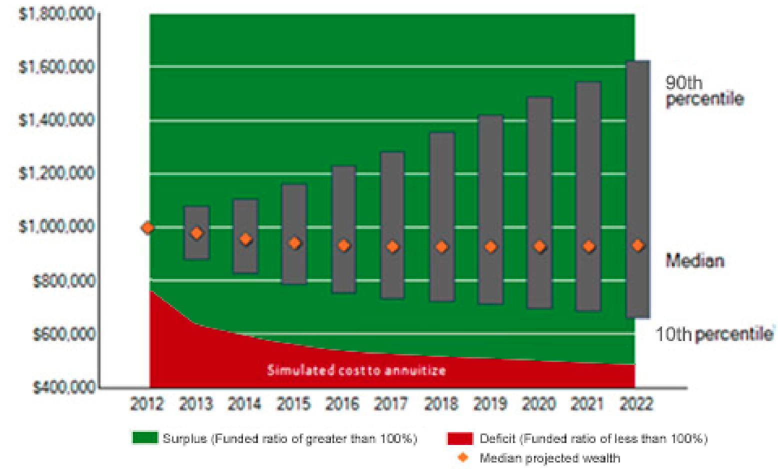
Stress test potential portfolios

Investment Allocation

Total Investment Withdrawal Needed **$48,998**	Proposed Portfolio	Current Portfolio ☐ Show
Portfolio Assets		
Asset Allocated Portfolio	100.0 %	
Investment Amount:	$1,000,000	
Portfolio Surplus:	$103,880	
Surplus Percentage:	12%	
Adaptive?	☑	
Initial Allocation:	Adaptive	
Initial Withdrawal Amount	$26,350	
Initial Withdrawal Rate:	2.6%	
Income Assets		
Simulated Bond Ladder	0.0 %	
Simulated Immediate Lifetime Annuity	0.0 %	

Efficient Frontier | Projected Wealth

View results for: ◉ Proposed Portfolio ○ Current Portfolio



Year	Projected wealth 10th percentile	Median	90th percentile	Simulated annuity cost
2013	$1,500,000	$1,500,000	$1,500,000	862,978
2014	$1,295,734	$1,472,307	$1,639,744	798,761
2015	$1,199,952	$1,431,661	$1,742,472	736,387
2016	$1,129,334	$1,391,796	$1,839,201	681,454
2017	$1,076,732	$1,363,595	$1,966,190	637,236
2018	$1,034,452	$1,339,586	$2,077,072	603,935
2019	$1,014,068	$1,328,525	$2,171,405	578,543
2020	$1,016,935	$1,339,131	$2,312,529	572,226
2021	$1,003,712	$1,360,965	$2,456,465	566,208

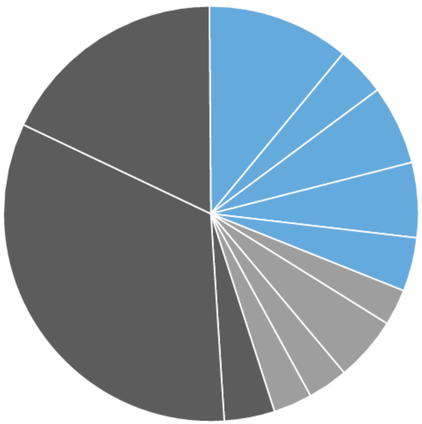
Three diversified model strategies

CONSERVATIVE	MODERATE	BALANCED

CONSERVATIVE	MODERATE	BALANCED
18%	31%	54%
10%	14%	14%
72%	55%	32%

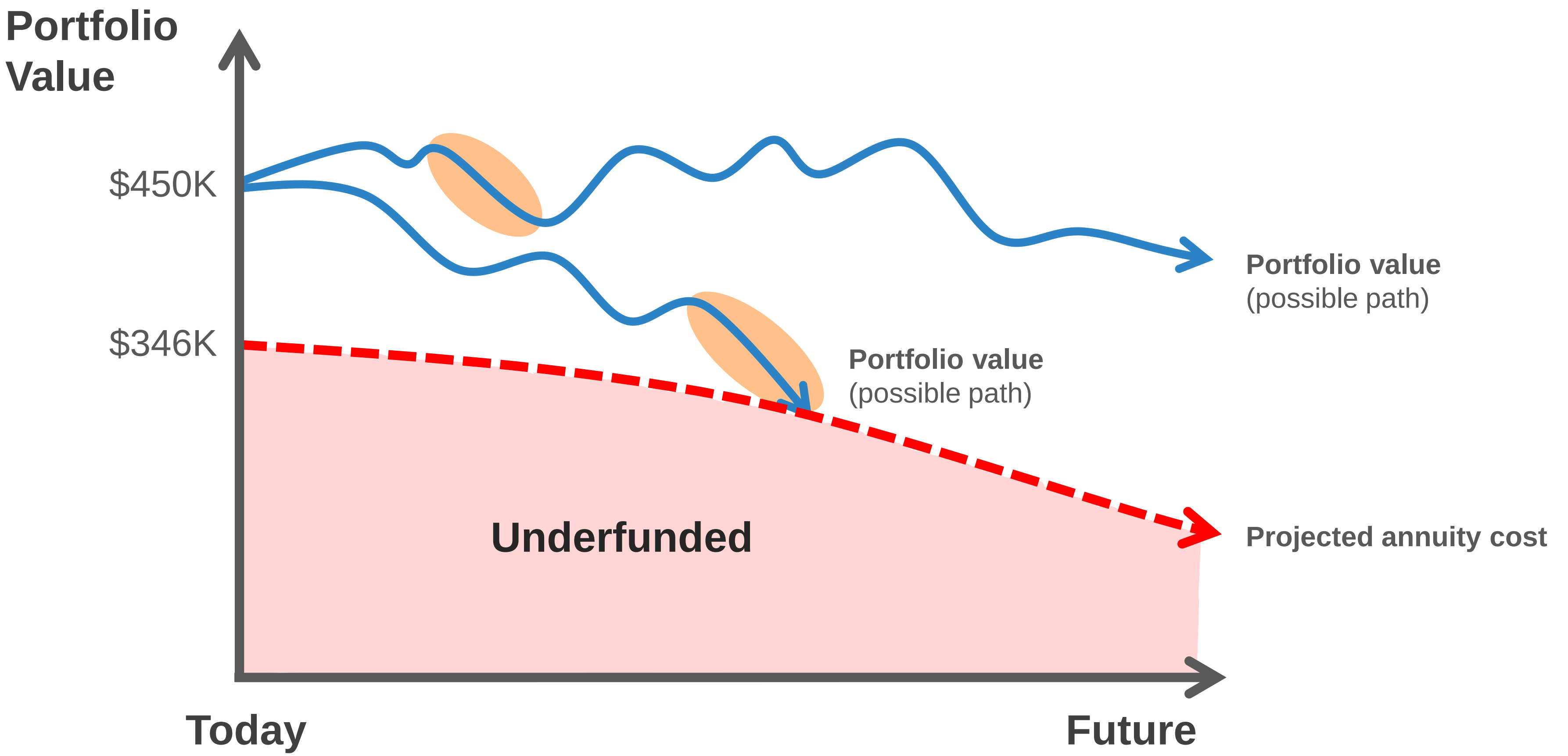
EQUITY FUNDS　ALTERNATIVE FUNDS　FIXED INCOME FUNDS

Moderate Example



- U.S. Strategic Equity 11%
- U.S. Small Cap Equity 4%
- Int'l Developed Markets 6%
- Global Equity 6%
- Emerging Markets 4%
- Commodity Strategies 3%
- Global Infrastructure 5%
- Global Real Estate Securities 3%
- Multi-Strategy Alternative 3%
- Global Opportunistic Credit 4%
- Strategic Bond 33%
- Investment Grade Bond 18%

Change the conversation



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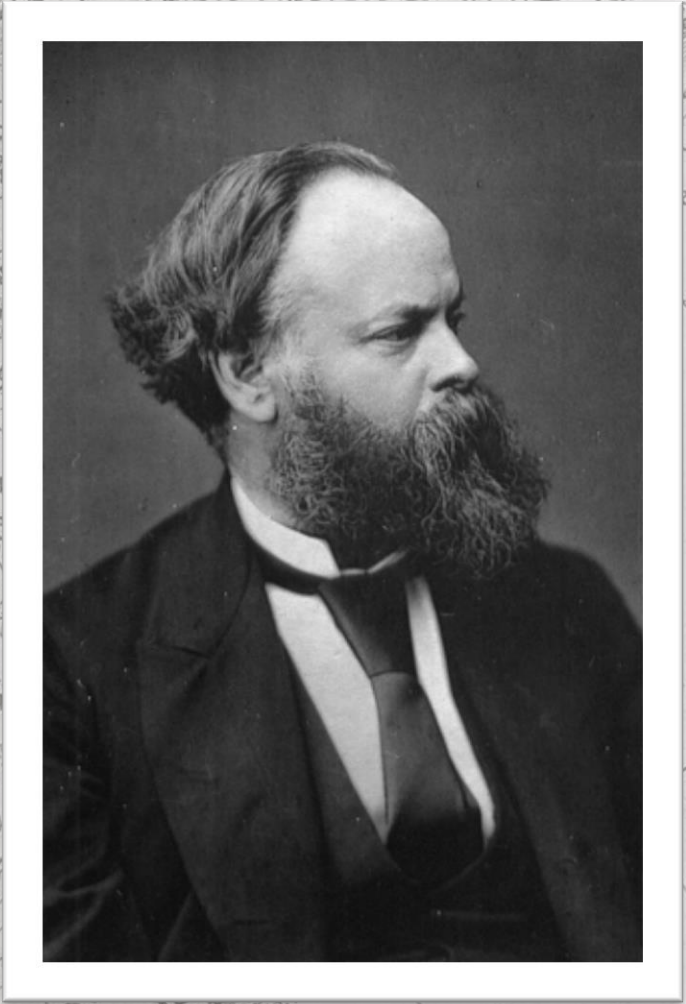

Samuel Plimsoll
1824 – 1898

"A great number of ships are regularly sent to sea in such a rotten and otherwise ill-provided state that they can only reach their destination through fine weather, and a large number are so overloaded that it is nearly impossible for them to reach their destination if the voyage is at all rough."

"The storms of winter may come, but with good tight ships under them…they reach their desired haven, weary and worn it may be, but still safe."

Our Seamen, 1872

http://www.nationalmediamuseum.org.uk

Your clients are worried about staying afloat in retirement

1. **Think of <u>three clients</u> you need to engage with a different conversation**

2. **Contact your dedicated Russell Regional Team (or the Russell Service Team) for help**

800-787-7354

service@russell.com

Methodology

The value of a spending liability is calculated by actuarially discounting future liabilities back to the present using mortality data and an appropriate risk free rate (often based on the Treasury yield curve).

The Funded Ratio (FR) is this liability value divided by the current portfolio balance. FRs of 100% mean that the discounted liability exactly matches the current assets. Less than 100% means that a plan is underfunded.

Mortality data comes from the Society of Actuaries, U.S. Annuitant 2000 Table.

Discount rate assumptions					
Year	1	5	10	20	30
Rate	0.17%	0.75%	1.98%	3.58%	3.86%

The asset allocations modeled in this presentation rely on the following broad asset assumptions:

			Correlations		
	Annual Expected Returns*	Volatility	Equity	Bonds	Cash
Equity	0.072	0.165	1		
Bonds	0.040	0.027	0.204	1	
Cash	0.022	0.038	0.049	0.504	1

*Assuming Continuous Compounding