

United Church Funds Northeast Endowment Conference

Getting Real about Spending Goals and Policies: Understanding Sustainable Draw Rates

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First, the Law of Investing: Uniform Management of Institutional Funds Act

- What: From Prudent Man Standard (1830) to Prudent Investor Act (1992).
- Why: Total return concept of Modern Portfolio Theory (1952).
- How: UMIFA (1972); updated UPMIFA (2006). 12 sections of default rules (apply if not covered by governing document, gift condition or organization structure), making it a tool kit to implement total return investing.
- Where: Everywhere in US, including Puerto Rico, with the lone exception of Pennsylvania.

Next, the Default Rules on Spending

- UPMIFA: Provides rules that cover management of funds, from expenses to distributions.
- Who: Charitable organizations and funds held by them.
- N/A: Trusts managed by corporate and individual trustees.
- Excluded: Duty of Impartiality found in UPAIA (but comments encourage state law “bridge”).
- Optional: Automatic finding of imprudent distribution if rate greater than 7% using 3 year smoothing.

Finally, the Default UPMIFA Spending Framework

- Factors: Subject to intent of donor; otherwise, 7 factors:
- (1) the duration and preservation of the endowment fund;
 - (2) the purposes of the institution and the endowment fund;
 - (3) general economic conditions;
 - (4) the possible effect of inflation or deflation;
 - (5) the expected total return from income and the appreciation of investments;
 - (6) other resources of the institution; and
 - (7) the investment policy of the institution.

Invest or Expend: When You Come to a Fork in the Road, Take It!” Yogi Berra



What Does that Mean a Board Should Do?

Comments to UPMIFA, Section 4:

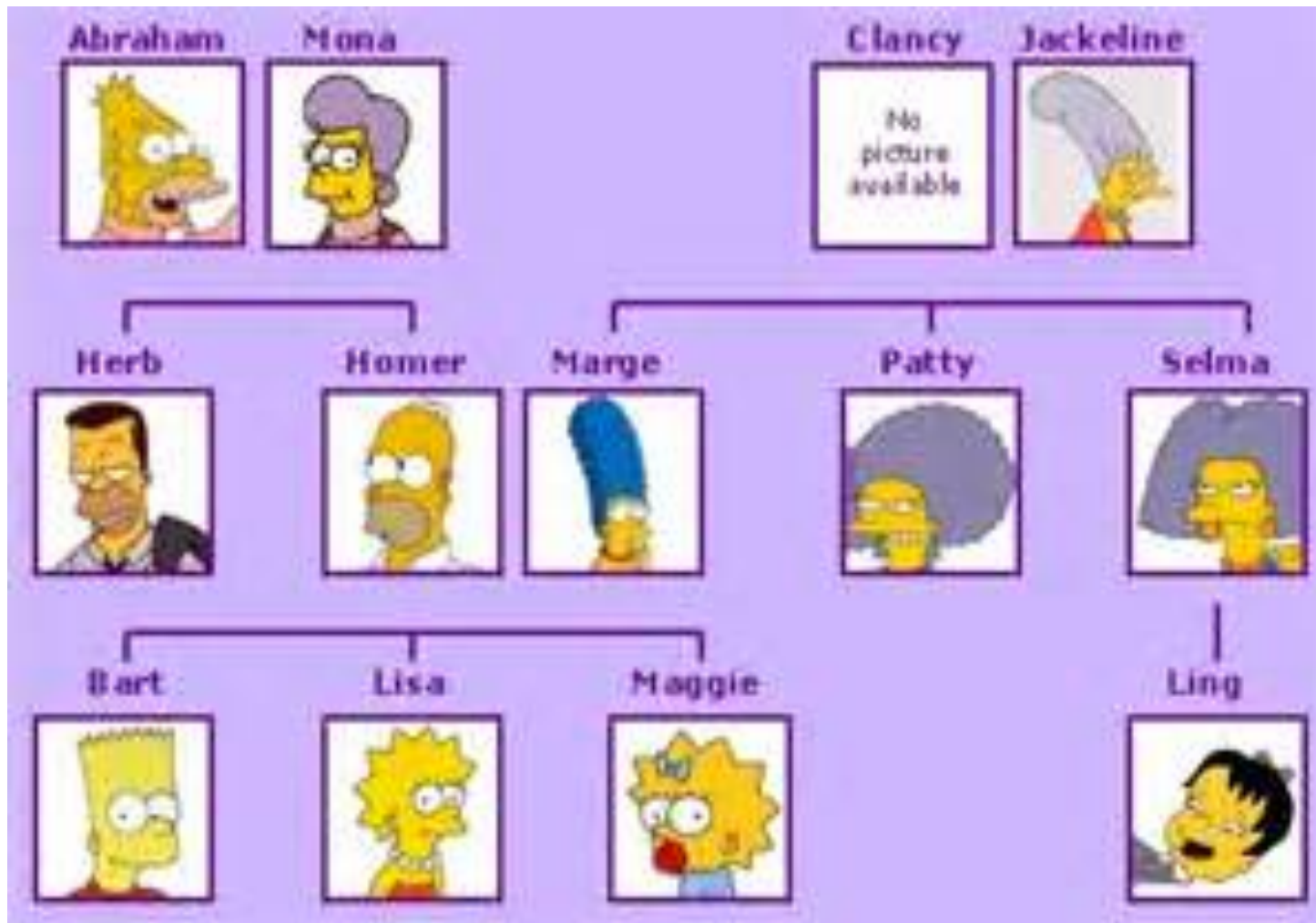
- When considering the purposes and duration of the fund, **give priority** to the donor's **general intent** that the fund be **maintained permanently**.
- Does not require a specific amount be set aside as “principal,” but assumes the charity will act to preserve “principal” (i.e., to **maintain the purchasing power** of the amounts contributed to the fund) while spending “income” (i.e. making a distribution each year that represents a **reasonable spending rate**, given investment performance and general economic conditions).
- Thus, an institution should **monitor** principal in an accounting sense, identifying the **original value** of the fund (the historic dollar value) **and the increases** in value **necessary to maintain the purchasing power** of the fund.

Okay, but how?

Unless a donor provides otherwise, endowment fiduciaries must act in a manner that is **fair** and **reasonable** to balance current distribution and probability of sustaining purchasing power .

“A true conservationist is one who knows that the world is not given by his fathers, but borrowed from his children.” John James Audubon

Its All Relative...



Its All Relative: 2 Levers for Maintaining Purchasing Power

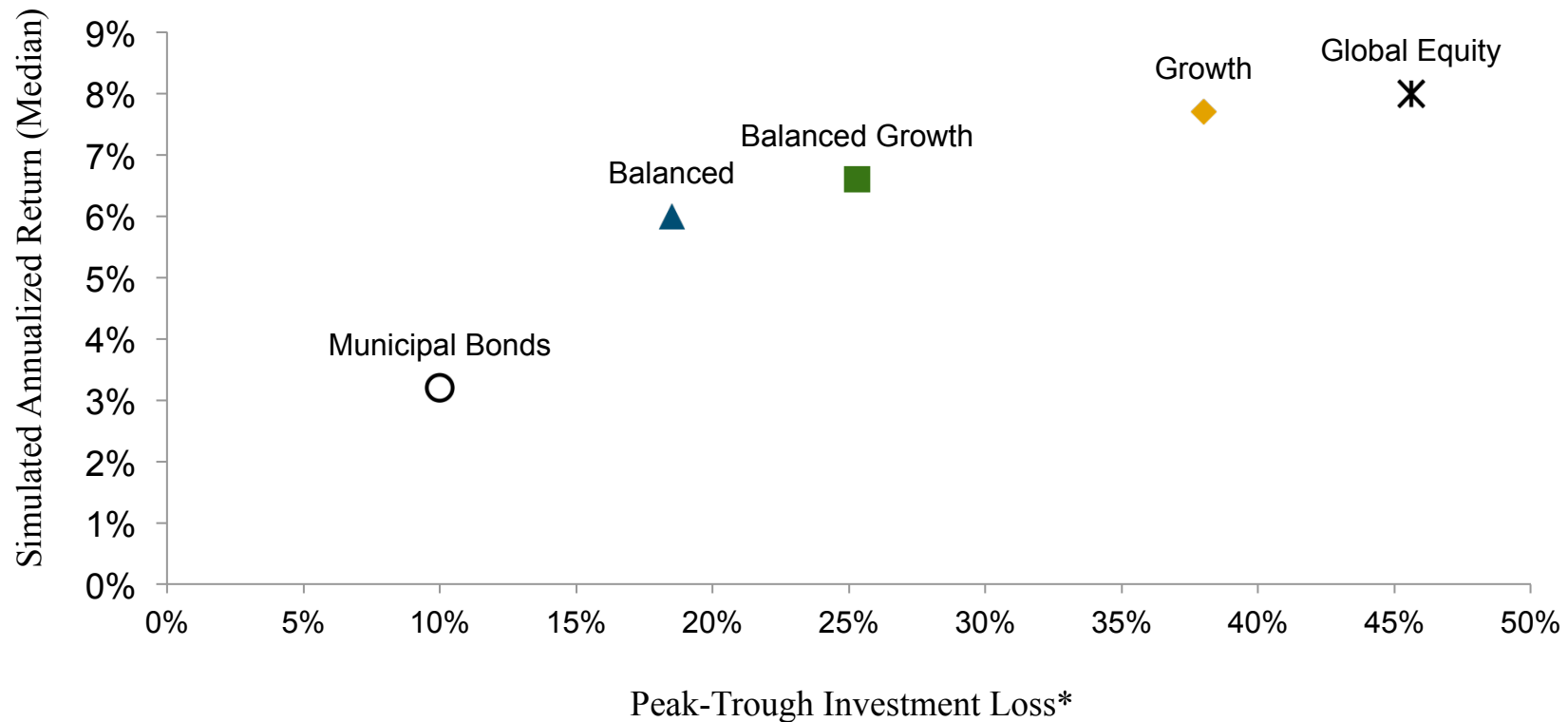
1. Distribution amount.
2. Asset allocation.

Its All Relative...Maintaining Purchasing Power

- Let's use probability and statistics!
- Stochastic analysis, a computational algorithm often referred to as “Monte Carlo” simulation, is effective for modeling.
- Does not provide the “right” answer, but helps analyze the relationship between impact of allocation and spending on values and volatility.
- Goal: Optimal balance in light of Board's understanding of the 7 factors noted earlier.

Implications Model Overview: Risk vs. Return

Implication Model Simulation 20-year period



*The Implication Model shows a 5% probability that the hypothetical portfolio value will fall by the percentage shown, or more, at some point over the simulation.

Let's Apply the Law!

Fiduciaries must adjust the distribution and allocation levers to be:

Fair – balance of beneficial enjoyment given the purpose and assets of the trust.
(Output lines 1, 5, 6 and 7.)

Reasonable – just another work for risk. (Output lines 2, 3 and 4.)

➤ Short cut: Projected performance minus investment fees minus inflation minus operating costs = max. payout.

➤ Example:

Performance			7%
Fees			1%
Inflation			3.50%
Operating Costs			0.50%
Available to distribute			2.00%

Scenario 1

Overview

Implication Model Description

Bessemer Trust's Implication Model is a proprietary tool that is designed to help clients make better informed investment and spending decisions by assessing the inherent trade-offs. Taking into consideration clients' unique circumstances, the analytical model simulates capital market returns, using a technique commonly referred to as "Monte-Carlo Simulation" and realistic assumptions, to compare a range of possible outcomes. The output highlights the implications of asset allocation and spending decisions on the likelihood of achieving wealth goals, such as meeting spending requirements, growing assets, outpacing inflation, and managing portfolio risk. Please see the "Bessemer Implication Model Description" at the end of this presentation for additional information regarding the model and its assumptions.

Balanced: [Current]	
Client Name:	Smith Irrevocable Trust
Initial Portfolio Value:	\$10,000,000
Spending:	Net Income
Tax Treatment:	Taxable Trust
ST Gains & Interest Inc:	Trust: 44.6% Beneficiary: 44.6%
LT Gains & Dividends:	Trust: 25.0% Beneficiary: 25.0%
Ordinary Income:	Trust: 40.8% Beneficiary: 40.8%

Balanced: [Proposed]	
Client Name:	Smith Irrevocable Trust
Initial Portfolio Value:	\$10,000,000
Spending:	3.00% (% Nominal Value)
Tax Treatment:	Taxable Trust
ST Gains & Interest Inc:	Trust: 44.6% Beneficiary: 44.6%
LT Gains & Dividends:	Trust: 25.0% Beneficiary: 25.0%
Ordinary Income:	Trust: 40.8% Beneficiary: 40.8%

Balanced Growth: [Current]	
Client Name:	Smith Irrevocable Trust
Initial Portfolio Value:	\$10,000,000
Spending:	Net Income
Tax Treatment:	Taxable Trust
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Balanced Growth: [Proposed]	
Client Name:	Smith Irrevocable Trust
Initial Portfolio Value:	\$10,000,000
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Scenario 1

SIDD Analysis

Initial Portfolio Value: \$10,000		Current Spending Rule			Proposed Spending Rule		
		Upside	Median	Downside	Upside	Median	Downside
\$ in thousands (Nominal)		Balanced: [Current]			Balanced: [Proposed]		
Primary Comparison		Net Income			3.00% (% Nom. Value)		
1	Ending Trust Value (Real)	\$15,419	\$9,157	\$5,497	\$15,942	\$9,640	\$5,890
2	Probability Trust Maintains Value (Real)		41.5%			46.4%	
3	Probability of Depletion in 20 Years		< 2%			< 2%	
4	Trust Distributions in Year 5 (Nominal)	\$427	\$332	\$260	\$455	\$345	\$266
5	Cumulative After-Tax Distributions (Real)	\$4,122	\$2,946	\$2,165	\$3,925	\$2,722	\$1,935
6	Total Wealth Created by Trust (1 + 5)	\$21,664	\$13,782	\$9,000	\$22,102	\$14,094	\$9,191
7	Income Beneficiary's Share (5 / 6)	27.9%	33.4%	40.0%	26.8%	31.5%	37.0%

Secondary Comparison		Current Spending Rule			Proposed Spending Rule		
		Upside	Median	Downside	Upside	Median	Downside
		Balanced Growth: [Current]			Balanced Growth: [Proposed]		
		Net Income			3.00% (% Nom. Value)		
1	Ending Trust Value (Real)	\$19,367	\$10,344	\$5,604	\$18,715	\$10,204	\$5,633
2	Probability Trust Maintains Value (Real)		52.8%			51.5%	
3	Probability of Depletion in 20 Years		< 2%			< 2%	
4	Trust Distributions in Year 5 (Nominal)	\$397	\$295	\$220	\$488	\$352	\$257
5	Cumulative After-Tax Distributions (Real)	\$4,333	\$2,899	\$2,007	\$4,816	\$3,116	\$2,062

Scenario 2

SIDD Analysis

Initial Portfolio Value:	\$10,000	Current Spending Rule			Proposed Spending Rule		
		Upside	Median	Downside	Upside	Median	Downside
		Balanced Growth: [Current]			Balanced Growth: [Proposed]		
\$ in thousands (Nominal)		3.50% (% Nom. Value)			4.00% (% Nom. Value)		
Primary Comparison							
1	Ending Trust Value (Real)	\$16,863	\$9,197	\$5,078	\$15,186	\$8,284	\$4,575
2	Probability Trust Maintains Value (Real)		43.0%			34.6%	
3	Probability of Depletion in 20 Years		< 2%			< 2%	
4	Trust Distributions in Year 5 (Nominal)	\$558	\$402	\$293	\$624	\$450	\$328
5	Cumulative After-Tax Distributions (Real)	\$5,642	\$3,679	\$2,454	\$6,362	\$4,176	\$2,800
6	Total Wealth Created by Trust (1 + 5)	\$24,450	\$14,341	\$8,666	\$23,310	\$13,876	\$8,478
7	Income Beneficiary's Share (5 / 6)	29.5%	35.6%	42.9%	33.3%	40.0%	47.6%

Secondary Comparison		Current Spending Rule			Proposed Spending Rule		
		Upside	Median	Downside	Upside	Median	Downside
		Growth: [Current]			Growth: [Proposed]		
		3.50% (% Nom. Value)			4.00% (% Nom. Value)		
1	Ending Trust Value (Real)	\$21,342	\$9,868	\$4,560	\$19,215	\$8,888	\$4,108
2	Probability Trust Maintains Value (Real)		49.2%			42.4%	
3	Probability of Depletion in 20 Years		< 2%			< 2%	
4	Trust Distributions in Year 5 (Nominal)	\$618	\$413	\$278	\$692	\$462	\$311
5	Cumulative After-Tax Distributions (Real)	\$7,422	\$4,310	\$2,570	\$8,206	\$4,805	\$2,889

Simulated Risk and Return Comparison

	Balanced	Balanced Growth	Growth
\$ in thousands (Nominal)			
Portfolio Information			
Initial Portfolio Value	\$10,000	\$10,000	\$10,000
Time Period	20	20	20
Annual Spending	5.00% (% 1Y Avg. NAV)	5.00% (% 1Y Avg. NAV)	5.00% (% 1Y Avg. NAV)
Median Cumulative Withdrawal over 20 Years	\$12,075	\$12,689	\$13,522
Asset Growth			
Probability of Depletion in 5 Years	Less than 2%	Less than 2%	Less than 2%
Probability of Depletion in 10 Years	Less than 2%	Less than 2%	Less than 2%
Probability of Depletion in 20 Years	Less than 2%	Less than 2%	Less than 2%
Median \$ Value in 20 Years	\$14,211	\$15,415	\$17,045
Upside \$ Value in 20 Years (10% probability)	\$25,027	\$30,491	\$40,533
Downside \$ Value in 20 Years (10% probability)	\$8,233	\$7,912	\$7,200
Risk Metrics			
Probability of Investment Loss in a Given Year	23.7%	26.7%	30.0%
Probability of Investment Loss Greater Than 10% in a Given Year	2.9%	5.7%	10.6%
Peak-to-Trough Investment Loss*	-23.4%	-30.6%	-42.8%
Probability of Maintaining Nominal Value in 20 Years	79.3%	79.5%	78.6%
Probability of Maintaining Inflation Adjusted Value in 20 Years	24.3%	33.0%	42.1%
Investment Returns			
Total Return	7.0%	7.4%	8.0%
Volatility	10.0%	12.2%	15.8%
Yield	3.2%	2.8%	2.2%

*There is a 5% probability the portfolio value will fall by the stated percentage, or more, at some point over the simulated time period.

7 Steps: Making the Complex...Simple?

Goal: More impact for longer!

1. More impact requires larger payout.
2. Larger payout requires equity allocation.
3. Equity allocation results in greater volatility - sans alternatives.
4. Greater volatility expands the income payout range.
5. Expanded income range makes budgeting unpredictable.
6. Unpredictable budgets create need for more...
7. Pause...sigh...return to #1.

Oliver Wendell Holmes, Jr.

I would not give a fig for the simplicity this side of complexity, but I would give my life for the simplicity on the other side of complexity.

A mind stretched by a new idea can never go back to its original dimensions.

Ernst F. Schumacher

Any intelligent fool can make things bigger, more complex, and more violent. It takes a touch of genius — and a lot of courage to move in the opposite direction.

“If our brains were simple enough for us to understand them, we'd be so simple that we couldn't.” Ian Stewart

“Simplicities are enormously complex. Consider the sentence “I love you”.” Richard O. Moore

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