LION STREET™

Integrating Life Insurance into Wealth Transfer Plans

An asset class approach

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Modern Portfolio Theory

Portfolio of individual assets with varying risk-return profiles can be constructed to optimize overall portfolio risk and return

An efficient frontier of optimal portfolios can be created that maximize return for a given risk or minimize risk for a given return

Individual asset risk and return should be measured in the context of how it impacts and behaves within the overall portfolio

Modern Portfolio Theory

Measuring and valuing assets in the portfolio management context, requires the following data:

- Asset-specific expected return (mean) AND expected risk (standard deviation)
- Asset-specific Sharpe Ratio (risk-adjusted return)
- Covariance of portfolio assets
- Portfolio risk, return and Sharpe Ratio

Life Insurance as a Contingent Asset Class

Expected Return = Pre-Tax Equiv. Return on Investment at Life Expectancy

Joint Insured Issue Ages	Joint LE (age)	Pre-Tax ROI at LE*
35/35	92/92	6.60%
45/45	92/92	6.59%
55/55	92/92	7.15%
65/65	93/93	7.37%
75/75	94/94	7.76%

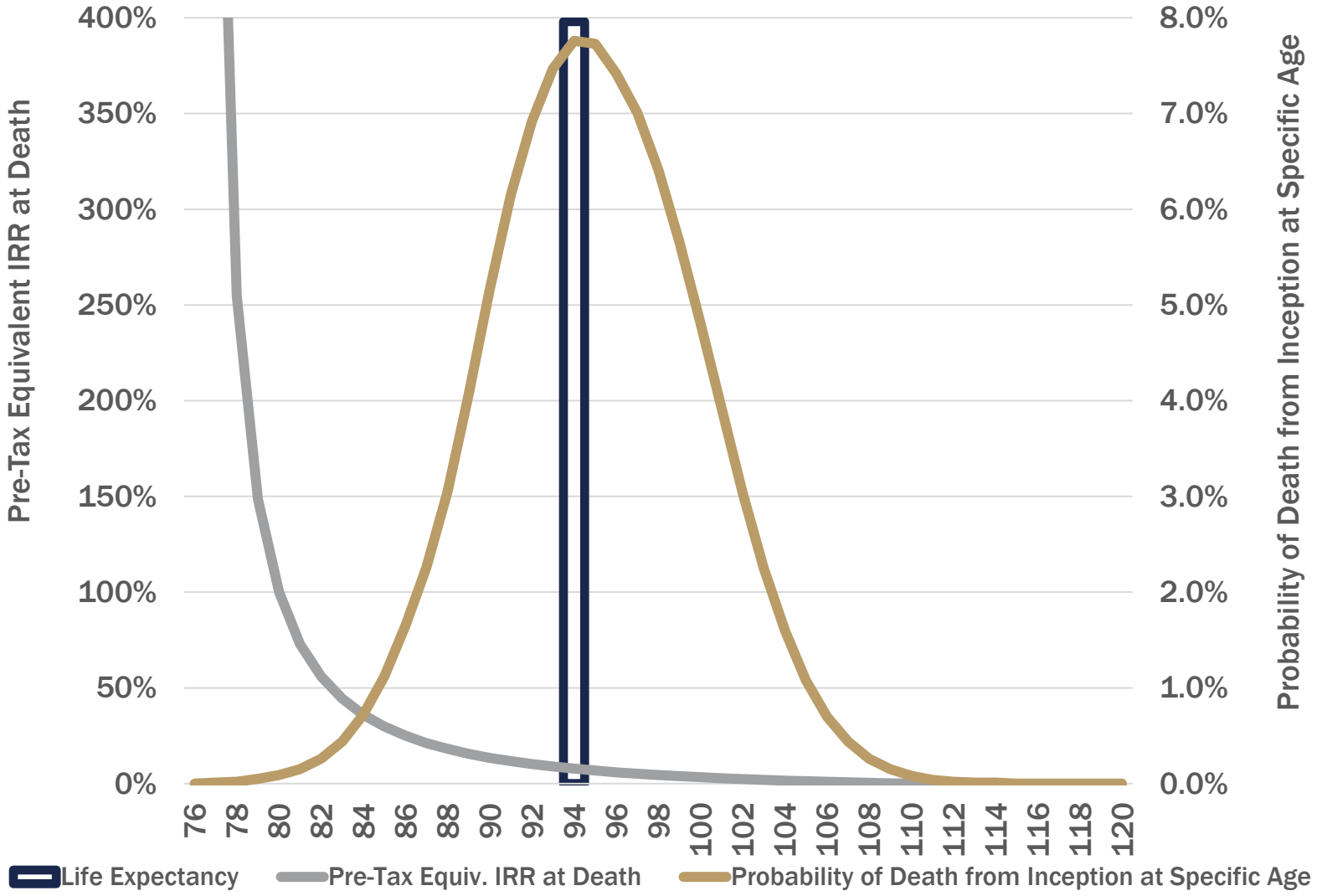
Life expectancy is used as the age at which to reference the expected return because it represents the average (mean) age of death as determined by a current mortality table for a pool of insureds with the same age, gender and underwriting risk classification.

*Nationwide YourLife NLG SUL II, $10,000,000 face amount, male/female, both standard nonsmoker, level pay solving for no-lapse guarantee to age 120, 26.86% blended tax rate. Hypothetical example for illustrative purposes only.

Expected risk (standard deviation) is a necessary data point for a complete asset class analysis, which is the average amount by which returns over a specific time period vary from the mean.

Death benefit standard deviation is the average amount by which projected IRRs (adjusted for their probability of occurring) vary assuming death occurred in any given year.

Since the benefit is mortality-based, the annual probability of surviving to and dying at each specific age is multiplied by the corresponding IRR; a standard deviation is calculated on these probability-weighted IRRs.



Nationwide YourLife NLG SUL II, $10,000,000 face amount, male/female, both standard nonsmoker, level pay solving for no-lapse guarantee to age 120, 26.86% blended tax rate. Hypothetical example for illustrative purposes only. Note: The sum of the individual probabilities represented by the purple line adds up to 100% and encompasses all deaths expected to occur over time from an initial pool of lives comprised of 75 year old male/female joint insureds of a standard nonsmoker risk. Mortality rates are based on the 2015 Valuation Basic Table.

Life Insurance as a Contingent Asset Class

Expected Risk = Standard Deviation of Probability-Weighted ROIs

Issue Age	LE (age)	Pre-Tax ROI at LE*	Standard Deviation
35/35	92/92	6.60%	0.12%
45/45	92/92	6.59%	0.13%
55/55	92/92	7.15%	0.15%
65/65	93/93	7.37%	0.18%
75/75	94/94	7.76%	0.24%

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Asset Class Analysis Quantifying the Risk and Return Characteristics of the Death Benefit

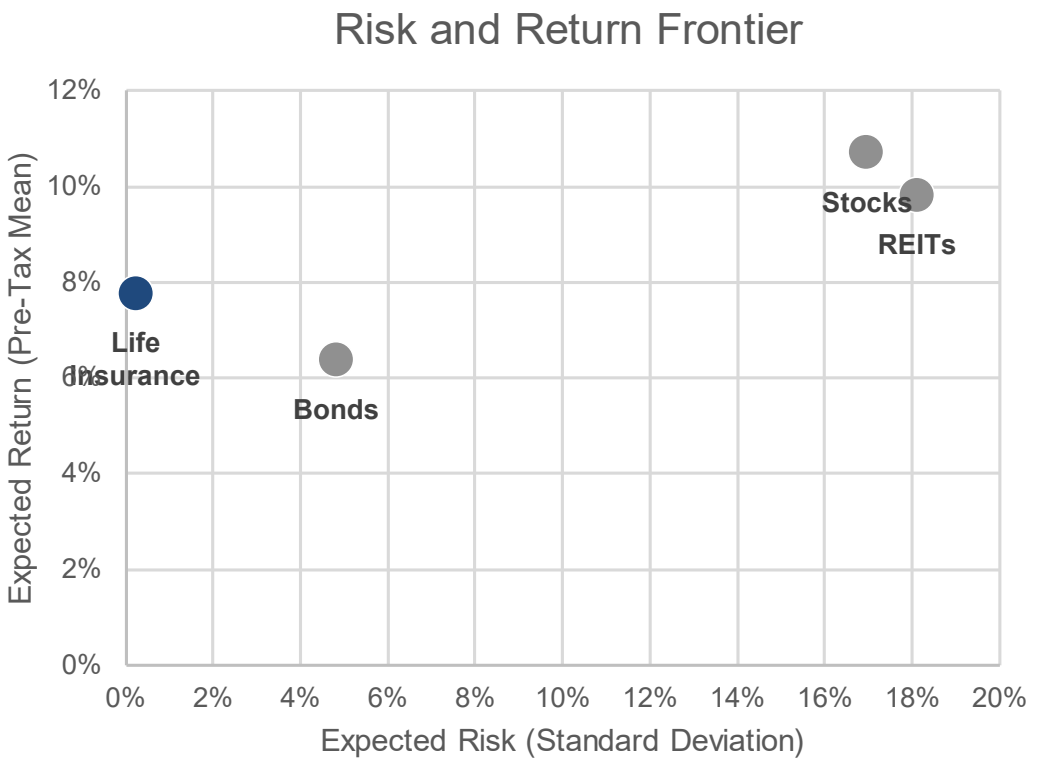
Insureds Names:	Mr. Big / Mrs. Big
Insureds Genders:	Male / Female
Insureds Issue Ages (Age Nearest):	Age 75 / Age 75
Insureds Underwriting Classes:	Standard Nonsmoker / Standard Nonsmoker

Joint Life Expectancy (LE) for Mr. Big / Mrs. Big	**19.4 Years Age 94/94**
Income Tax-Free Return on Investment (ROI) Assuming Death Occurs at LE	**5.67%**
Expected Return: Pre-Tax Equivalent ROI at LE using a 26.86% Blended Tax Rate	**7.76%**
Expected Risk: Probability Weighted Standard Deviation of Pre-Tax Equiv. ROIs on DB	**0.24%**

				Values at Death for Asset Class Analysis				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Year	**Age Attained**	**Premium**	**Cash Value During Life**	**Death Benefit**	**ROI on Death Benefit**	**Pre-Tax Equivalent ROI**	**Probability of Death in Each Year** *from inception*	**Probability of Death in or before Each Year** *(sum of col. 8)*
1	76/76	289,685	0	10,000,000	3352.03%	4583.03%	0.00%	0.00%
2	77/77	289,685	0	10,000,000	439.66%	601.13%	0.01%	0.01%
3	78/78	289,685	0	10,000,000	186.28%	254.69%	0.02%	0.02%
4	79/79	289,685	0	10,000,000	108.73%	148.66%	0.05%	0.07%
5	80/80	289,685	0	10,000,000	73.21%	100.10%	0.09%	0.16%
6	81/81	289,685	0	10,000,000	53.36%	72.96%	0.15%	0.31%
7	82/82	289,685	0	10,000,000	40.89%	55.90%	0.26%	0.57%
8	83/83	289,685	0	10,000,000	32.41%	44.32%	0.44%	1.00%
9	84/84	289,685	0	10,000,000	26.33%	36.00%	0.72%	1.73%
10	85/85	289,685	0	10,000,000	21.78%	29.78%	1.12%	2.85%
11	86/86	289,685	0	10,000,000	18.27%	24.98%	1.65%	4.50%
12	87/87	289,685	0	10,000,000	15.49%	21.18%	2.26%	6.76%
13	88/88	289,685	0	10,000,000	13.24%	18.11%	3.05%	9.81%
14	89/89	289,685	0	10,000,000	11.40%	15.58%	4.07%	13.88%
15	90/90	289,685	0	10,000,000	9.86%	13.48%	5.16%	19.04%

Hypothetical example for illustrative purposes only. Actual results will vary.

Historical Calendar Year	S&P 500 Total Return	Barclays U.S. Aggregate Bond	FTSE Nareit REITs
1988	16.61%	7.89%	11.36%
1989	31.69%	14.53%	-1.81%
1990	-3.10%	8.96%	-17.35%
1991	30.47%	16.00%	35.68%
1992	7.62%	7.40%	12.18%
1993	10.08%	9.75%	18.55%
1994	1.32%	-2.92%	0.81%
1995	37.58%	18.46%	18.31%
1996	22.96%	3.64%	35.75%
1997	33.36%	9.64%	18.86%
1998	28.58%	8.70%	-18.82%
1999	21.04%	-0.82%	-6.48%
2000	-9.10%	11.63%	25.89%
2001	-11.89%	8.43%	15.50%
2002	-22.10%	10.26%	5.22%
2003	28.68%	4.10%	38.47%
2004	10.88%	4.34%	30.41%
2005	4.91%	2.43%	8.29%
2006	15.79%	4.33%	34.35%
2007	5.49%	6.97%	-17.83%
2008	-37.00%	5.24%	-37.34%
2009	26.46%	5.93%	27.45%
2010	15.06%	6.54%	27.58%
2011	2.11%	7.84%	7.28%
2012	16.00%	4.22%	20.14%
2013	32.39%	-2.02%	3.21%
2014	13.69%	5.97%	27.15%
2015	1.19%	0.55%	2.29%
2016	11.96%	2.65%	9.28%
2017	21.83%	3.54%	9.27%



	Stocks	Bonds	REITs	Life Insurance
Expected Return *(Pre-Tax Mean ROI)*	10.69%	6.36%	9.81%	7.76%
Expected Risk *(Standard Deviation)*	16.96%	4.83%	18.10%	0.24%

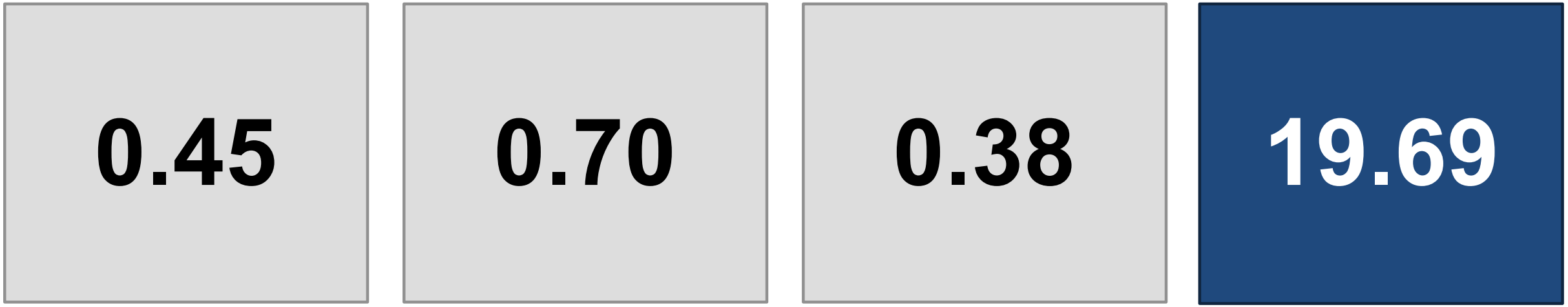
Income Tax Rate Assumptions for Pre-Tax Equivalent ROI on Death Benefit:

% of Return as Ordinary Income	60.00%
% of Return as Realized Cap Gain	10.00%
% of Return as Unrealized Cap Gain	30.00%
% of Return as Tax-Free	0.00%
Ordinary Income Tax Rate	40.80%
Capital Gains Tax Rate	23.80%

26.86%
Blended Tax Rate

Hypothetical example for illustrative purposes only. Actual results will vary. Historical performance is no guarantee of future results.

Sharpe Ratio (Risk-Adjusted Return) Comparison Using a 3.00% Risk Free Rate



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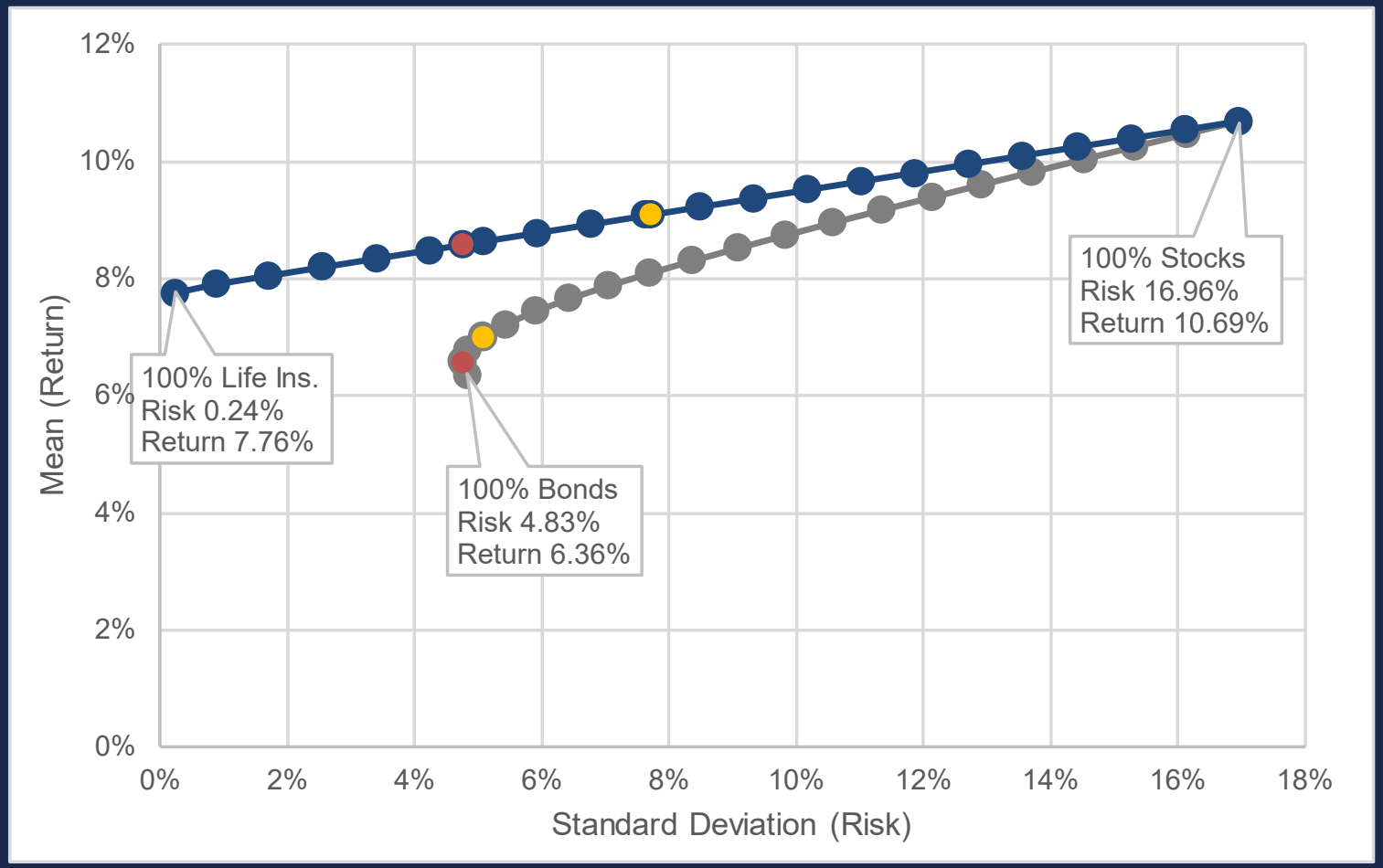
Sharpe ratio is the difference between the expected mean return and the risk-free rate (risk premium) divided by the standard deviation, a measure of the risk-adjusted return of an asset class.

Efficient Frontier Using a Simple Two-Asset Wealth Transfer Portfolio

(For conceptual purposes; Actual portfolio management would use a greater number of asset classes)



	Mean (Return)	Std Dev (Risk)	Sharpe Ratio
5% Stocks 95% Bonds	6.58%	*4.76%*	0.75
28% Stocks 72% Life Ins.	8.58%	*4.76%*	1.17
15% Stocks 85% Bonds	7.01%	5.08%	*0.79*
45% Stocks 55% Life Ins.	9.09%	7.71%	*0.79*

Life Insurance as a Contingent Asset Class

- Income tax-free death benefit with a compelling tax-adjusted IRR and low standard deviation (risk)
- Fixed payment correlated to mortality, not the markets
- Hedge against premature death and/or volatility in other assets at death, stabilizing the transfer of wealth
- Reduced risk and increased risk-adjusted return in the family's wealth transfer portfolio

Implementation Considerations

- Determine to what extent life insurance is to be incorporated
- Funding premiums (consider any income tax consequences):
  - Make additional cash flow contributions
  - Allocate portfolio fixed income for a period of time
  - Designate specific fixed income assets to be drawn down over time
  - Liquidate any capital assets with little to no unrealized gain
  - Use investment line of credit to avoid having to liquidate assets (note the interest rate risk element may increase overall standard deviation and is not accounted for in the forgoing analysis)

Additional Considerations

- Risk tolerance, time horizon and liquidity needs must inform the asset allocation process
- Post-mortem time horizon is necessary, or possibly post-morbidity*
- Can't maximize utility of cash value and death benefit in one policy
- Other considerations:
  - Impact of policy performance on required premiums
  - Carrier financial strength and risk of insolvency
  - Policy owner actions causing policy rescission or refund of premiums only (material misrepresentation, fraud, suicide, etc.)

*Assumes a Chronic Illness or LTC Rider is available and issued under the policy that can allow some portion of the death benefit to be accelerated during life in the event that a qualifying condition occurs. Additional charges may apply.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