

Importance of COLA's for Pension Plans

Monday, January 29th

10:30am – 11:00am

JEFFREY AMROSE, EA,MAAA



Topics

- Defined Benefit (DB) Plan
- Effect of Inflation
- Illustrative Examples - COLA
- Cost Mitigation Strategies for COLA's

DB Plan

- Powerful financial tool in retirement that helps protect members against outliving their money
- Getting guaranteed annual income in retirement provides a member with financial security
 - We do not want to be watching the stock market every day in retirement hoping it goes up so we can maintain our life style

DB Plan

- What is better in retirement: a nest egg or annual income?
 - Like everything else in life, a balance is best
- Ideally a member would have a nest egg earning interest (CD's, stocks, bonds and/or real estate) and annual income from a DB Plan and Social Security

DB Plan

- When should you retire in a DB Plan?
 - Many variables to consider
 - Nobody rings a bell when you will be able to retire
- Cost of Living Adjustments (COLAs) in a DB Plan are extremely important

DB Plan

Cornered

by Mike Baldwin



“Find a hobby, like rock-climbing or skydiving. You have to protect yourself from the cost of living too long.”

DB Plan

Four Common Fears for Retirees

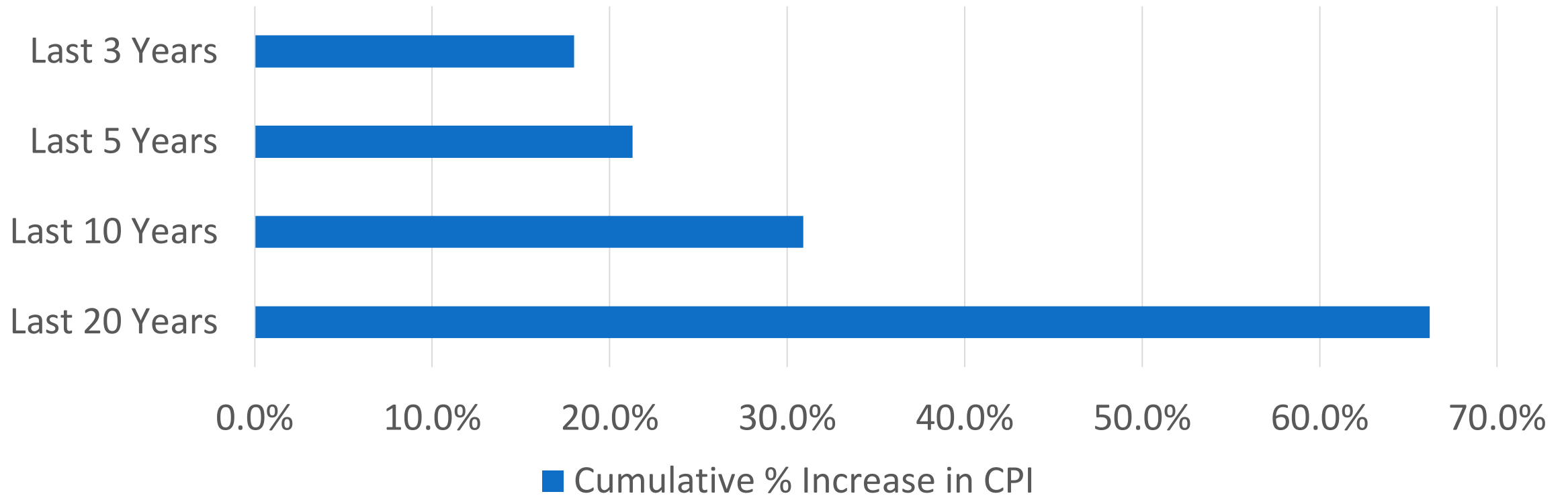
- Lifestyle
- Becoming a financial burden
- Health
- Outliving your money
 - This is the #1 fear for retirees
 - A DB Plan provides a layer of security against outliving your money and a COLA in your DB Plan reinforces the strength of that layer

Effect of Inflation

- Inflation is a key risk to the purchasing power of your DB plan benefit
- After 20 years of mild inflation, the pandemic was a primary driver of a surge in inflation over the last 3 years
- Even mild inflation can wipe out a significant amount of your pension benefit's purchasing power

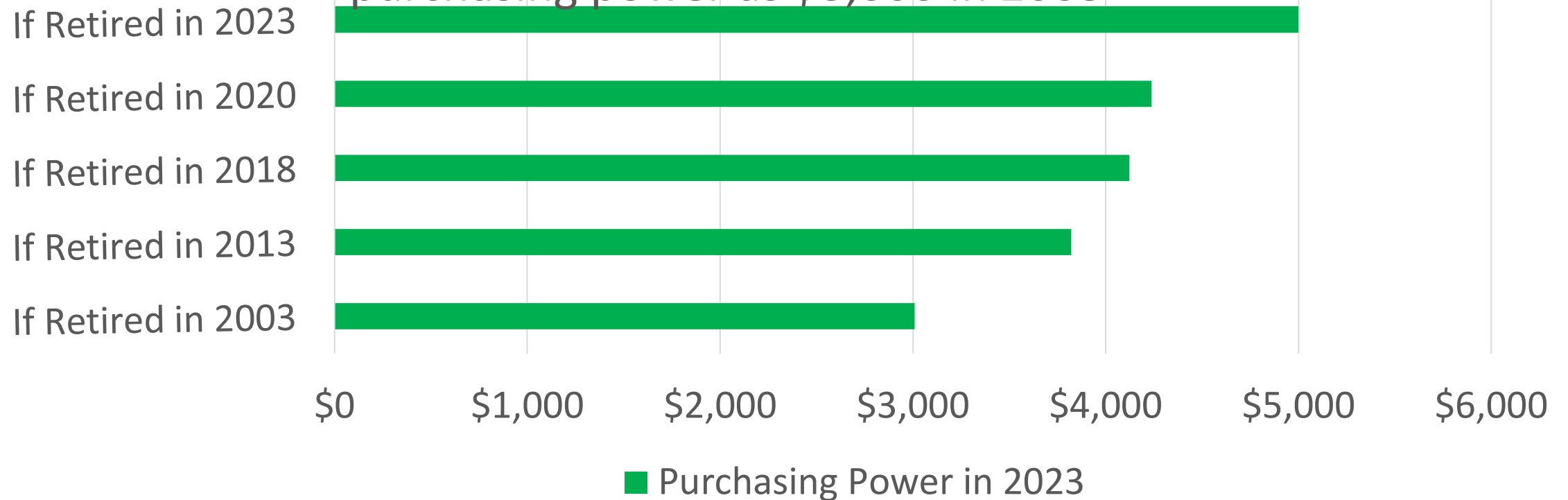
Effect of Inflation

Cumulative Increase in CPI



Effect of Inflation

How many dollars would you need to have the same purchasing power as \$3,000 in 2003



Illustrative Examples

- Baseline assumptions for our examples (unless otherwise stated)
 - Hired at age 25
 - Retire at age 50
 - Age at death 90
 - Average Final Compensation (\$80,000)
 - Discount rate of 6.0%
 - CPI of 2.5% per year
- To determine the best choice for retiree we compare
 - Benefit levels at certain ages
 - Total payments from age 50 to age 90
 - Present value at retirement of all payments

Illustrative Example #1

Keeping up with Inflation

- How much purchasing power is lost due to inflation?

Example #1 - Results

Age	Annual Benefit		
	3.5% benefit multiplier and 0% COLA	3.5% benefit multiplier with CPI based COLA (2.5%)	Annual Loss of Purchasing Power
50	70,000	70,000	0
55	70,000	79,200	9,200
60	70,000	89,608	19,608
65	70,000	101,383	31,383
70	70,000	114,706	44,706
75	70,000	129,779	59,779
80	70,000	146,833	76,833
85	70,000	166,129	96,129
90	70,000	187,959	117,959
Total Loss of Purchasing Power			2,036,157
Present Value of Loss of Purchasing Power			461,618

Illustrative Example #1 – Take Away

- This member may have thought they were in good shape when they retired at age 50 with an annual benefit of \$70,000
- Due to inflation the \$70,000 annual benefit has lost a significant amount of purchasing power in the later years of retirement

Illustrative Example #2

How Important is the level of a COLA

- Let's discuss the difference between a 0%, 2%, and 3% COLA on an initial benefit of \$70,000 per year

Example #2 - Results

Age	Annual Benefit		
	3.5% benefit multiplier and 0% COLA	3.5% benefit multiplier and 2% COLA	3.5% benefit multiplier and 3% COLA
50	70,000	70,000	70,000
55	70,000	77,286	81,150
60	70,000	85,330	94,076
65	70,000	94,212	109,059
70	70,000	104,018	126,429
75	70,000	114,844	146,567
80	70,000	126,797	169,912
85	70,000	139,994	196,974
90	70,000	154,565	228,346
Total Payment:	2,870,000	4,382,754	5,506,516
Present Value	1,123,241	1,471,828	1,711,157

Illustrative Example #2 – Take Away

- There is a significant difference between the benefit level that these three common COLA's provide members
- There is also a significant difference in the cost level
- A modest COLA is still better than no COLA

Illustrative Example #3

Which would you rather have?

- Option 1 – 3.5% benefit multiplier and no COLA
- Option 2 – 3.0% benefit multiplier and a 2.0% annual COLA
- Option 3 – 2.75% benefit multiplier and a 3.0% annual COLA

Example #3 - Results

Age	Annual Benefit		
	3.5% benefit multiplier and 0% COLA	3.0% benefit multiplier and 2% COLA	2.75% benefit multiplier and 3% COLA
50	70,000	60,000	55,000
55	70,000	66,244	63,761
60	70,000	73,138	73,916
65	70,000	80,750	85,689
70	70,000	89,154	99,337
75	70,000	98,433	115,159
80	70,000	108,678	133,500
85	70,000	119,990	154,763
90	70,000	132,480	179,413
Total Payment:	2,870,000	3,756,507	4,326,514
Present Value	1,123,241	1,261,529	1,344,474

Illustrative Example #3 – Take Away

- Negotiations often focus on the benefit multiplier but the importance of a COLA cannot be overstated

Illustrative Example #4

- Option 1 – 3.5% benefit multiplier and no COLA
- Option 2 – X.X% benefit multiplier and a 3% annual COLA
- What do you think X is if the present value of the benefit payments over 40 years is the same for the two options?

Illustrative Example #4

Age	Annual Benefit		Difference
	3.5% benefit multiplier and 0% COLA	2.30% benefit multiplier with a 3% COLA	
50	70,000	45,960	(24,040)
55	70,000	53,281	(16,719)
60	70,000	61,767	(8,233)
65	70,000	71,606	1,606
70	70,000	83,011	13,011
75	70,000	96,232	26,232
80	70,000	111,560	41,560
85	70,000	129,329	59,329
90	70,000	149,928	79,928
Present Value	1,123,241	1,123,241	0

Illustrative Example #5

- Option 1 – 3.5% benefit multiplier and no COLA
- Option 2 – X.X% benefit multiplier and a 3% annual COLA
- What do you think X is if the total benefit payments over 40 years is the same for the two options?

Illustrative Example #5

Age	Annual Benefit		Difference
	3.5% benefit multiplier and 0% COLA	1.82% benefit multiplier with a 3% COLA	
50	70,000	36,485	(33,515)
55	70,000	42,296	(27,704)
60	70,000	49,033	(20,967)
65	70,000	56,843	(13,157)
70	70,000	65,895	(4,105)
75	70,000	76,390	6,390
80	70,000	88,556	18,556
85	70,000	102,660	32,660
90	70,000	119,010	49,010
Total Payments	2,870,000	2,870,000	0

COLA Cost Mitigation Strategies

- COLA delays
 - Fixed number of years after retirement
 - Not paid while in the DROP
 - Start at certain age when COLA's are needed most
- COLA payment interval can be anything
 - Annually, biannually, every 3rd year, every 5th year

COLA Cost Mitigation Strategies

- Set a maximum benefit subject to COLA
 - Applying COLA only to first \$X,XXX of pension benefit
- Use simple interest instead of compound interest
 - Cost is lower but may not do a good job minimizing the loss of purchasing power

COLA Cost Mitigation Strategies

- Provide an optional form of payment with a COLA
 - Lower benefit with a COLA – can make it fully or partially actuarial equivalent (may provide a subsidy to the member)
- Ad-hoc or discretionary COLA's
 - One-time benefit increases given to retirees who have not received periodic COLAs, to help restore at least a portion of lost purchasing power since retirement

COLA Cost Mitigation Strategies

- Performance-based variable COLAs can be linked to investment performance
 - Takes away some risk for the plan sponsor
- Provide temporary COLA
 - Apply COLA for X years or from ages Y to Z – e.g., from age 55 to 65
 - Temporary COLAs can help bridge gaps by applying until eligibility for other benefits, such as Social Security, Medicare

Questions???