

## Inflation Risk

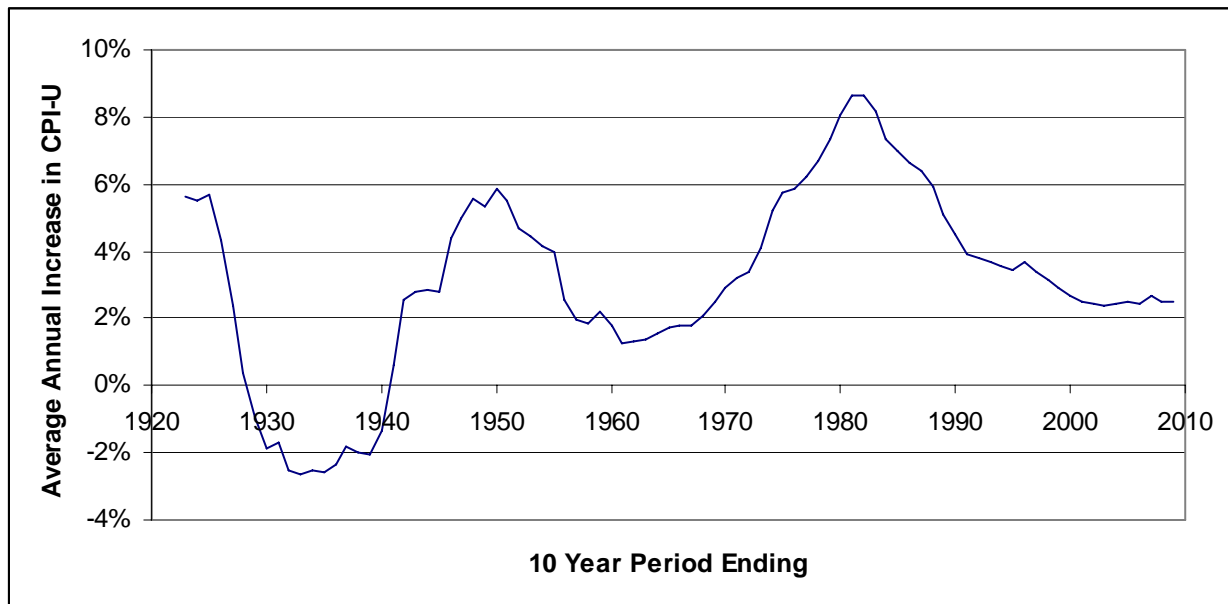
The two most important factors to consider when managing inflation risk are the impact of inflation on retirement benefits and the cost of providing cost of living adjustments.

### Impact of Inflation

The continual rise in prices associated with inflation is often one of the biggest, and most hidden, costs encountered in retirement. Retirees who do not receive cost of living adjustments can quickly see inflation deplete their income. For example, an individual who retired in 1973 and received an annual pension of \$18,000 (a respectable sum of money at that time) would have needed almost \$37,000 to maintain the same standard of living eight years later.<sup>1</sup> If that retiree was enrolled in a pension plan that did not provide cost of living adjustments, the retiree would be experiencing a standard of living half as good in 1981 as his standard of living upon retirement in 1973. In other words, that retiree would be forced to halve his budget—he would have half as much money to buy food, half as much money to pay for housing, and half as much money to pay other everyday expenses.

### History

The following chart shows average U.S. inflation over 10 year periods:



### Cost of Providing Cost of Living Adjustments

Although cost of living adjustments are vital to protecting retirees from inflation, they can be expensive to provide. For example, if a retirement plan wanted to provide an employee with an annual annuity of \$50,000, the plan would need to accumulate about \$625,000. If the plan wanted to protect that employee from inflation by providing guaranteed cost of living adjustments, the plan would need to accumulate about \$800,000.<sup>2</sup> Furthermore, few employees recognize the importance of cost of living adjustments

<sup>1</sup> Calculations based on U.S. Bureau of Labor Statistics' CPI Inflation Calculator

<sup>2</sup> Calculations based on annuity factors in <<G:\RETSHARE\Policy Office Group\Plan Design\Notebook\DC Replacement Ratios.xls>>

during retirement, so providing retirees with inflation protection is a benefit that often goes underappreciated.

### **Systematic Risk**

For inflation risk, the systematic risk component is the risk that all prices go up. All consumers are impacted by this risk. This risk can not be diversified away.

### **Non-systematic Risk**

For inflation risk, the non-systematic risk component is the risk that the prices in a particular basket of goods go up. For example, an individual who owns an RV and travels extensively suffers the impact of rising gas prices far more acutely than the average person. Usually, the only way to diversify away this risk is to be prepared to change consumption habits as prices change.

### **Managing the Risk**

The employer can take on inflation risk by including automatic cost of living adjustments in a defined benefit plan design. The employer will want to model this risk and possibly adjust asset allocation to take it into account. The employer could also have the employee take on the risk and provide modeling tools and education about inflation. To effectively manage inflation risk, employees need to make adjustments to their spending, saving, and investment habits to account for rising prices in the future. If the plan intends on pushing inflation onto a third party, it can do so through a number of methods. The most common of these methods are to purchase inflation-protected treasury bonds (push the risk onto the federal government) or to trade in inflation derivatives in the financial markets (push the risk onto a financial firm, insurance company, or investor).