Understanding inflation

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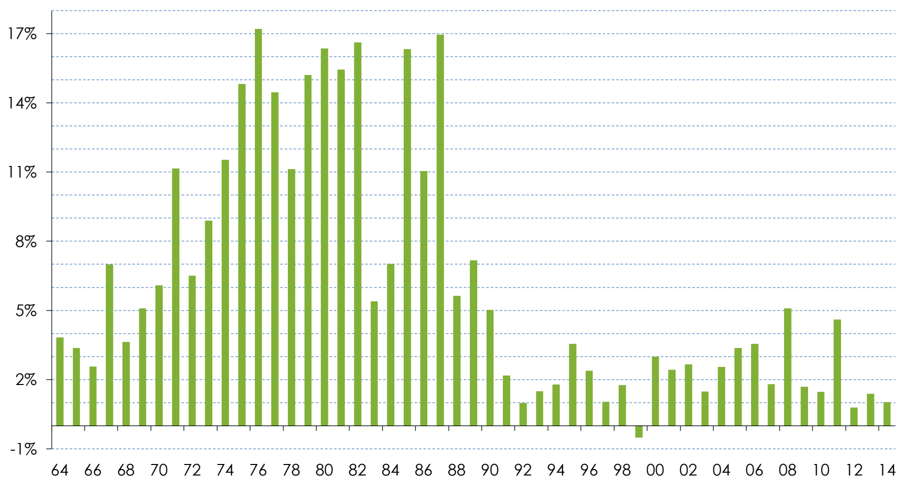
Inflation is a significant factor for retirement savings. It affects the amount that we need to save and also what happens to our costs in retirement. Inflation is a widely used economic term that refers to the "general rise in prices". The inflation rates over the last 50 years have been:

Annual CPI movement to 30 September



Further details are on the Statistics NZ Web site and an inflation calculator is on the Reserve Bank's Web site.

The best way to show the concept of inflation is by an example. Let us assume you have $15,000 and the cost of a loaf of bread is $2. This means you can buy 7,500 loaves of bread - at least one for each day over the next 20 years. However, in retirement, we are not only interested in the cost today, but also in the cost each day in each year over the following 20 years or so. Bread goes stale if we bought them all today.

If the price of bread increases by 5% to $2.10, the $15,000 would buy only 7,143 loaves of bread ($15,000/$2.10). You are now one year short of a loaf a day for 20 years.

A rise in the price of something (e.g. loaves of bread) decreases the number you can buy for the same money, or increases the amount of money you need to have, to buy the same number.

Consumers are interested not just in the price of bread. They are also interested in the price of other goods and services e.g. cars, milk, housing, petrol and clothing etc., some of which will rise and others may fall. As such, inflation is the general rise in prices of all goods that are commonly bought.

The most common way of measuring the rise in general prices is the Consumer Price Index (CPI). The CPI is an index that measures the prices of goods and services "typically" purchased by consumers and are constructed by Statistics NZ. The Reserve Bank is mandated to manage this to the range of 1% to 3% p.a. over the medium term and to target 2%. Over the last 20 years (to 30 September 2014), inflation has averaged 2.2% a year.

Inflation and investment returns

In the example, we saw that because of inflation, our $15,000 bought fewer loaves of bread.

However, if we had invested our $15,000 at the rate of, say, 6% p.a. after taxes and expenses, we could have bought more.

At 6% interest, the $15,000 would have grown to $15,900 ($15,000 x 1.06) at the end of a year.

At that time therefore, we could afford to buy 7,571 loaves of bread at its new price (i.e. $^{\$15,900}/_{\$2.10}$).

This highlights the importance of achieving an investment return, over the long-term, greater than the rate of inflation. This is known as a "real" return.

Investments and inflation

Investing your assets in a combination of cash, bonds and shares, provides varying forms of inflation protection.

Cash returns will generally outperform the expected inflation rate. This is because the interest rates will quickly move to reflect changes in inflation rates. However, the downside of cash investments is lower average long-term returns and there is no protection against unexpected inflation. Also, they provide weaker protection, in periods of high inflation after you have paid tax.

While bonds should produce returns higher than cash long-term, the risk of unexpected inflation eroding the real value of the investment is also larger, given the longer term of bond investments. Like cash, to protect your capital against inflation, you need to retain (i.e. not spend) and reinvest part of your return.

Cash and bonds are normally good investments for your short to medium term expenditure.

Property investments generally provide a natural protection against inflation, as rental income will generally increase with inflation and the value of a property rises to reflect the level of rental income. Property will therefore normally, but not always, protect both the capital value and the income return against inflation over the long-term.

Diversified share investments also tend to provide a natural protection against inflation over the long-term. A company that produces goods is "typically" affected by inflation, as follows:

- the price of the raw materials it uses (e.g. metal) increases due to inflation;
- this increases the cost of production and reduces its profit;

- the company eventually raises the price, at which it sells its goods to restore profits in real terms.

Overall therefore:

- the cost of production increases by inflation.
- the sale prices of goods eventually increases by inflation.
- therefore, profits (sale price less cost of production) increases by inflation.
- so the company's share price (which reflects the profit of the firm) also increases by inflation.

In practice, life is not that simple, but over the long-term shares, like property, provide a natural protection. Also, while share return should exceed inflation over the long-term, there will be times when this is not the case.

Conclusion

A long-term investor will be better off if the rate of the investment's return (after tax and expenses) is greater than the inflation rate.

Cash provides protection against expected inflation but with lower expected returns. In contrast, bonds provide higher long-term returns than cash, but have a higher risk that unexpected inflation might erode the value of the investment before the bond's repayment date. Neither bonds nor cash are good in times of high inflation.

From an inflation perspective, property and shares should provide the highest expected long run returns as well as a natural hedge against unexpected inflation. However, these advantages come at the expense of greater volatility over the short run (including periods of large negative returns).

Inflation is only one issue you should consider in determining your investment strategy. For more information on formulating your investment strategy, refer to the **SuperLife investment guide** available on our website **www.SuperLife.co.nz** or call **0800 27 87 37**.