

BEATING INFLATION IN RETIREMENT (BEYOND TIPS)

The right investment to confront the threat of inflation in a retirement portfolio may not be obvious.

Given the recent massive fiscal and monetary stimulus, our long held view of a lower for longer inflation environment may start to be challenged. As a result, it's important to ensure that retirement portfolios invest in assets that have historically demonstrated inflation protection. One of the best options may surprise you: natural resources in the form of equities.

1% HIGHER INFLATION MATTERS

To get a sense of the impact of inflation on retirement investors, let's take a look at how an account balance and resulting retirement income can be diminished. If we assume a 2% inflation rate, and an investor starts saving and investing at age 25, they would have approximately \$610,000 at age 67 in real terms.¹ That would result in an annual retirement income of \$55,000.² If we assume a 3% inflation rate, the account balance is reduced to \$401,000, and cuts projected retirement income by 36% to \$35,000 per year; costing the retiree \$20,000 in annual income. Even in the case of an older investor who has only 10 years to retirement, a 1% inflation difference results in a 14% decrease in retirement income.

WAYS TO COVER INFLATION

82% Historical Inflation Coverage By Equity-Based Natural Resources

There are a number of investment options available to retirees to protect themselves. Theoretically, asset prices should reflect inflation expectations and returns should compensate for inflation. However, given that inflation is not always expected by the market, many traditional asset classes such as global equities, fixed income, and even Treasury inflation protected securities (TIPS) will not always produce returns that are equal to or greater than inflation.

Our research in Exhibit 1 shows the percent of time that asset classes are able to produce returns to fully cover inflation during high-inflation periods. Using this lens we can see that futures-based commodities, natural resources and global listed infrastructure have historically done the best job mitigating this risk during high inflation periods.

PAUL KUBASIAK
Retirement Strategist,
Retirement Solutions

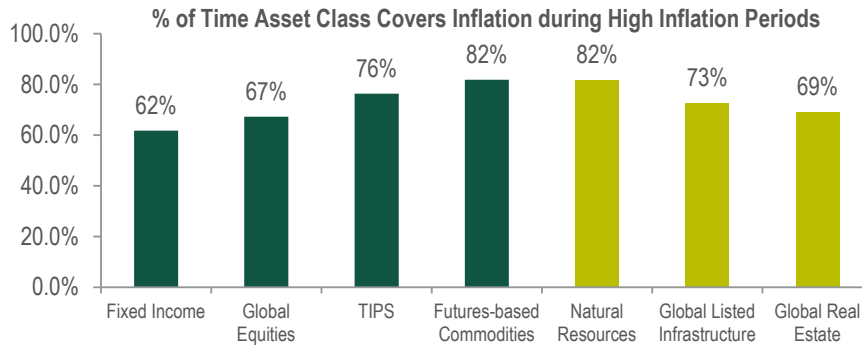
**Northern Trust Asset Management
Investment Institute**

NTAMInvestmentInstitute.com

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EXHIBIT 1- REAL INFLATION PROTECTION

Futures-based commodities and natural resources equities have demonstrated the strongest inflation coverage during high inflation periods. Yellow bars are equity-based real asset classes.



SOURCE: Northern Trust Retirement Solutions, Bloomberg. Data from 12/31/2001 to 3/31/2021. High inflation (above 2.77%) represents the 75th percentile of data during the data range. Normal inflation is below 2.77%.

WHY NATURAL RESOURCES MAY WORK

While TIPS are structurally indexed to inflation and will inherently move in line with inflation, the relatively lower total return will not always provide enough to cover inflation. Further research from Northern Trust supports these findings. The “inflation beta” of TIPS is less than 1.0. Equity-based natural resources and commodities have statistically significant inflation betas of more than 4.0, indicating high sensitivity to inflation.³

Looking at the two asset classes with the highest sensitivity to inflation, natural resources and commodities both perform very well during high-inflation periods. However, we have to be mindful of how the asset classes perform during more normal inflationary periods.

Exhibit 2 shows the annualized returns during high and normal inflation periods. Futures-based commodities have historically done well during high inflation, but they can be a material drag on the portfolio during normal inflationary markets. This is primarily because of a negative yield that typically occurs when rolling over futures at expiration.

EXHIBIT 2: HIGH VS. NORMAL INFLATION: ANNUALIZED RETURNS

Natural resource equities show the highest return amid high inflation and a non-negative return when inflation is normal.

	High inflation	Normal inflation
Natural resources (equities)	20.9%	2.4%
Futures-based commodities	13.5	-4.8
Global listed infrastructure (equities)	14.5	8.7
Global real estate (equities)	9.8	9.4
Global equities	7.6	8.6
TIPS	9.2	5.3
Fixed Income	4.3	4.6

SOURCE: Northern Trust Retirement Solutions, Bloomberg. Data from 12/31/2001 to 3/31/2021. High inflation (above 2.77%) represents the 75th percentile of data during the data range. Normal inflation is below 2.77%.

A POTENTIALLY POWERFUL, RISK-MANAGED ANTIDOTE TO INFLATION

Within our multi-asset class portfolio construction process, we take a risk-managed approach and target a measured level of sensitivity to unexpected inflation at the total portfolio level. Without the addition of real assets, we have found that the portfolio does not adequately contain the appropriate amount of inflation-sensitivity necessary to protect a retirement investor's purchasing power. We are able to quickly achieve the desired inflation risk management by adding natural resources exposure, while constraining the active risk of the total portfolio and maintaining the necessary growth to fund the retirement liability. The ability of the asset class to efficiently address inflation risk makes it a potentially powerful addition to the portfolio, even at relatively small allocations.

Along with our positioning to capture the asset class's growth and diversification benefits, we believe an equity-based natural resources exposure can be a vital addition to an investor's portfolio to help protect the purchasing power of their retirement income.

¹ For illustrative purposes only. Ending account balance represents the median value from 10,000 simulations. The salary and savings rate is based on a starting salary of \$45,000, with 3% annual increases until age 55, then 2.5% increases thereafter. Savings rate starts at 3% at age 25 and increases 0.5% every year until 7%, plus a company match of 50% up to 6%. Returns are based on a diversified portfolio with a glidepath of lower risk toward retirement.

² For illustrative purposes only. Retirement income based on a 90 percent confidence interval (joint probability of 70th percentile male life expectancy (age 91) and 70th percentile of the lowest simulations of returns)

³ How Real are Real Assets, Northern Trust wealth management, Peter Mladina & Joe Bates October 2018

NORTHERN TRUST RETIREMENT SOLUTIONS

As one of the largest managers of retirement assets in the United States, our team has deep expertise in developing innovative answers to challenges faced by many plan sponsors, retirement advisors and individual investors. We take a consultative approach to addressing the needs of individual investors while offering a suite of solutions aimed at improving retirement outcomes.

Please contact the Investment Institute
at NorthernSolutionsGroup@ntrs.com

NORTHERN TRUST ASSET MANAGEMENT

As a leading global asset management firm, our investment expertise, strength and innovation have earned the trust and confidence of the world's most sophisticated institutional and individual investors.

With \$1.4 trillion in total assets under management,⁴ and a long standing history of solving complex challenges, we believe our strength and stability drive opportunities for our clients. Our comprehensive asset class offering includes passive, factor-based, fundamental active and multi-asset class solutions that are available in a variety of investment vehicles.

⁴ Asset under management as of March 31, 2021

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