



# TAX AWARE

## Inflation and Tax Efficiency

December 13, 2023

Inflation hurts investors' bottom lines even more than you might realize.

Inflation and taxes are linked in at least two ways. The first is straightforward, and often called "bracket creep".<sup>1</sup> The idea is that tax bracket cutoffs adjust upward with inflation, but at a lag. So, if your income this year moved up one-for-one with inflation, in real terms, you're no better off than you were last year; but from a tax perspective, that nominal increase gets taxed at your highest marginal rate. The result: your overall *effective* tax rate has gone up.

The second way is subtle, but for an investment portfolio can matter much more. To illustrate with an example, suppose an investor buys a stock for \$100, and sells it a year later for \$110. That \$10 gain is taxed at a long-term rate, which we'll assume here to be 23.8%, resulting in a \$2.38 tax bill.

But what if inflation was 4% over that year? In real terms, the investor made only \$6, but the tax bill is still based on the \$10 nominal gain. The result: the investor's effective tax rate goes up. In this case, the investor will pay a 39.7% effective tax rate in real terms (\$2.38 on a \$6 real gain).

In the table below, we show the effective tax rate for different levels of inflation and different portfolio returns (assuming a one-year investment horizon). Regardless of how strong your portfolio's returns are, higher inflation leads to a higher effective tax rate.

A Nominal Tax Rate of 23.8% turns into an Effective Tax Rate of:

		Inflation Rate					
		0%	1%	2%	3%	4%	5%
Portfolio Return (Nominal)	5%	23.8%	29.8%	39.7%	59.5%	119.0%	N/A*
	6%	23.8%	28.6%	35.7%	47.6%	71.4%	142.8%
	7%	23.8%	27.8%	33.3%	41.7%	55.5%	83.3%
	8%	23.8%	27.2%	31.7%	38.1%	47.6%	63.5%
	9%	23.8%	26.8%	30.6%	35.7%	42.8%	53.5%
	10%	23.8%	26.4%	29.8%	34.0%	39.7%	47.6%

\*N/A here is technically an infinite tax rate, as the investor would pay taxes on a zero percent real return.

See Beer, et al (2023) for more.

What's an investor to do? There are three options: 1) lower the inflation rate, 2) increase their portfolio's expected return, and 3) improve their portfolio's tax efficiency. Option 1 is nice work if you can get it. Option 2 is a good idea, but presumably it's also something investors have already spent a lot of time maximizing. To us, the clear source of low-hanging fruit is Option 3.

The chart below illustrates the potential benefit of becoming more tax efficient, for different levels of inflation. Each of the bars is the tax bill for an investor with a \$10 million portfolio that generates a 5% real return. The first set of bars are for a portfolio whose returns are highly taxed (e.g., short-term capital gains and ordinary income rates); the middle bars are for returns taxed at long-term rates; and the last bars are for a tax-efficient portfolio (i.e., where taxes are deferred, and where we assume a 10% tax as the present value of a future "true-up").

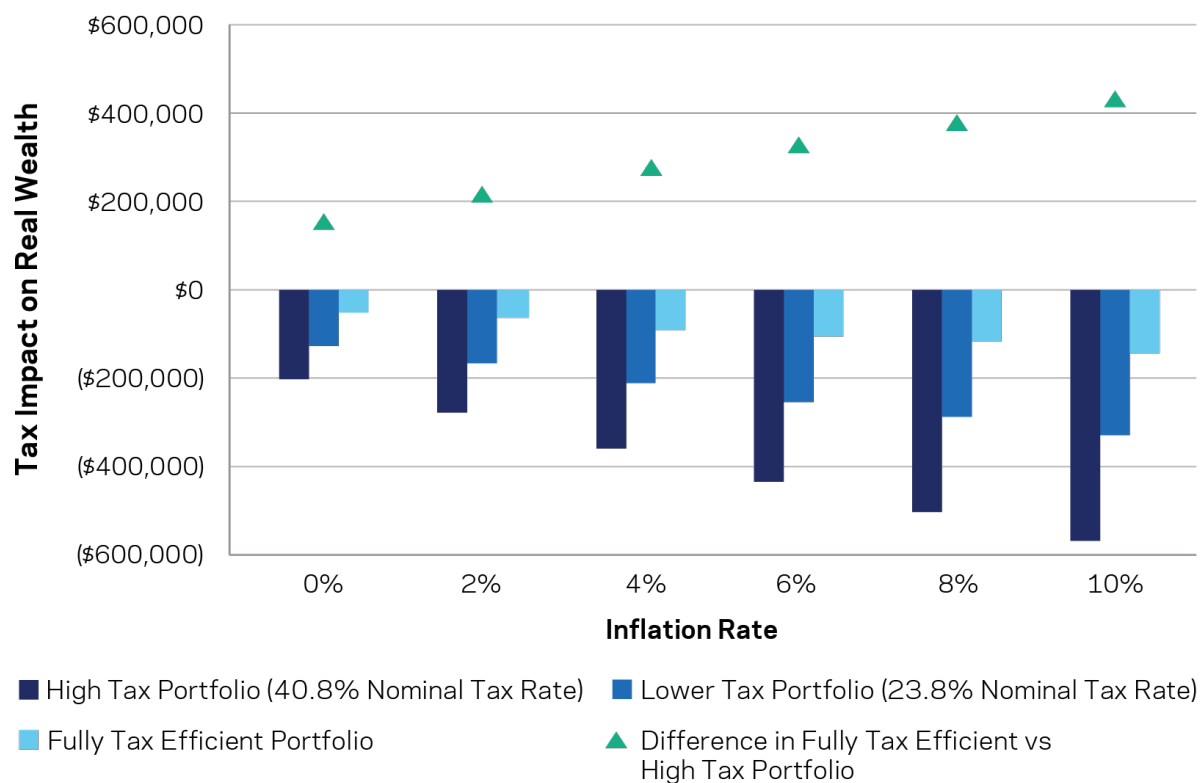
## Tax efficiency becomes even more valuable when inflation is a feature of the macroeconomic environment

Even when inflation is at 0%, tax efficiency is a good idea (first trio of blue bars). But the insight here is that tax efficiency becomes even more valuable when inflation is a feature of the macroeconomic environment, as it has become these days. The green triangles illustrate the case of the fully tax efficient versus the high tax portfolio. Even without inflation, tax efficiency can add a lot of value; and at higher levels, these differences become (we think) a very meaningful source of “alpha”.

Inflation can be a drag on wealth. The good news for investors, though, is today they have practical solutions for making their overall portfolios more tax efficient.

### Inflation Makes Tax Efficiency Even More Important

\$10M portfolios, each with a 5% real return



Source: AQR. See Beer et al (2023) for more on this topic. Results above are based on tax rates of 40.8%, 23.8% and 10.0%, and assume a \$10M portfolio with a 5% real return. Effective tax is calculated as:  $\text{tax rate} \times (1 + (\text{inflation rate} / ((\text{real return}) \times (1 + \text{inflation rate}))))$ .

[1] For more, see, e.g., [Beer et al. 2023](#).

This material is intended for informational purposes only and should not be construed as legal or tax advice, nor is it intended to replace the advice of a qualified attorney or tax advisor. The reader should conduct his or her own analysis and consult with professional advisors prior to making any investment decision.

This document is not intended to, and does not relate specifically to any investment strategy or product that AQR offers. It is being provided merely to provide a framework to assist in the implementation of an investor's own analysis and an investor's own view on the topic discussed herein.

This document has been provided to you solely for information purposes and does not constitute an offer or solicitation of an offer or any advice or recommendation to purchase any securities or other financial instruments and may not be construed as such. The factual information set forth herein has been obtained or derived from sources believed by the author and AQR Capital Management, LLC ("AQR") to be reliable but it is not necessarily all-inclusive and is not guaranteed as to its accuracy and is not to be regarded as a representation or warranty, express or implied, as to the information's accuracy or completeness, nor should the attached information serve as the basis of any investment decision. This document is not to be reproduced or redistributed to any other person. The information set forth herein has been provided to you as secondary information and should not be the primary source for any investment or allocation decision. Past performance is not a guarantee of future performance.

This material is not research and should not be treated as research. This paper does not represent valuation judgments with respect to any financial instrument, issuer, security or sector that may be described or referenced herein and does not represent a formal or official view of AQR. The views expressed reflect the current views as of the date hereof and neither the author nor AQR undertakes to advise you of any changes in the views expressed herein.

The information contained herein is only as current as of the date indicated, and may be superseded by subsequent market events or for other reasons. Charts and graphs provided herein are for illustrative purposes only. The information in this presentation has been developed internally and/or obtained from sources believed to be reliable; however, neither AQR nor the author guarantees the accuracy, adequacy or completeness of such information. Nothing contained herein constitutes investment, legal, tax or other advice nor is it to be relied on in making an investment or other decision. There can be no assurance that an investment strategy will be successful. Historic market trends are not reliable indicators of actual future market behavior or future performance of any particular investment which may differ materially, and should not be relied upon as such.

The information in this paper may contain projections or other forward-looking statements regarding future events, targets, forecasts or expectations regarding the strategies described herein, and is only current as of the date indicated. There is no assurance that such events or targets will be achieved, and may be significantly different from that shown here. The information in this document, including statements concerning financial market trends, is based on current market conditions, which will fluctuate and may be superseded by subsequent market events or for other reasons.