

Two is greater than one

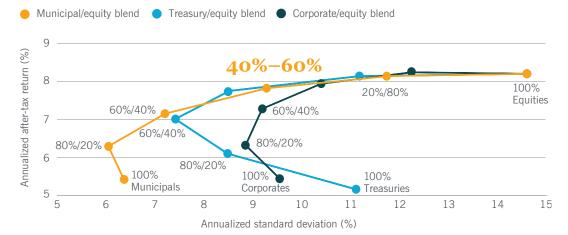
Since different asset classes involve different types of risk, diversifying your portfolio may help reduce overall portfolio volatility.¹

A balance of equities and municipal bonds has historically lowered the overall investment risk (measured by standard deviation) and provided similar after-tax returns compared with an all-equity portfolio.

Over the 20-year period from 2002-2021, a portfolio of municipal bonds and equities provided comparable after-tax returns with similar or less risk than equivalent Treasury or corporate blends.

Combining asset classes can help balance risk and return

Hypothetical blended portfolios, 2002-2021



40%/60%

municipal/equity mix assumed less risk

with similar return when compared with a 100% equity portfolio.

Annualized after-tax returns for hypothetical blended portfolios

Municipal/equity blend	Treasury/equity blend	Corporate/equity blend	Equity allocation
5.42%	5.16%	5.44%	0%
6.29%	6.10%	6.32%	20%
7.15%	7.01%	7.28%	40%
7.82%	7.75%	7.94%	60%
8.14%	8.14%	8.24%	80%
8.20%	8.20%	8.20%	100%

Past performance is no guarantee of future results. Source: Nuveen Asset Management, 01 Jan 2002 – 31 Dec 2021. These conclusions are derived from the following portfolio assumptions: All investment income generated by the portfolio is reinvested annually, along with the after-tax proceeds of an arbitrarily assumed 20% annualized turnover rate. The allocation between the two assets was allowed to roam within a 1% band around its target before rebalancing. No provision was made for investment fees or commissions. Investment income was taxed at the historically appropriate rate for an individual with \$100,000 in taxable income in year 2021 dollars; net capital gains taxes, if any, were deducted at the rate appropriate for the period. At the end of 2021 the portfolios were fully liquidated to recognize the existing tax liability. Different economic periods and different assumptions, such as tax rate, will have different results.

Index data source: Bloomberg, L.P. Representative indexes: municipal bonds: Bloomberg Long Municipal Index; Treasury bonds: Bloomberg Long Treasury Index; corporate bonds: Bloomberg Long Credit Index; equities: S&P 500® Index.

1 Diversification does not insure against loss in a declining market.

ASSESSING TRADE-OFFS AMONG **INVESTMENTS**

Investments contain different sources of risk and return. Stocks can provide higher returns but also have greater volatility than municipal bonds. Municipal and corporate bonds include the individual credit risk of the borrower and the general interest rate risk of lower bond prices due to rising interest rates. Treasuries are backed by the full faith and credit of the U.S. government for the timely payment of principal and interest, but these securities are also subject to interest rate risk. Depending on an investor's investment goals, risk tolerance, time horizon and tax implications, various portfolio considerations and allocations should be evaluated.

Federal tax rates on ordinary income, capital gains and qualified dividends²

Years:	Marginal ordinary income tax rate ³	Capital gains and qualified dividends rates
1999-2000	31%	20%
2001	30.5%	20%
2002	30%	20%
2003	28%	20%/15%4
2004-2017	28%	15%4,5
2018-2021	24%6	15%5

Taxation varies at the federal and state level

	Federal income taxes	State income taxes
Municipal bonds	Exempt	Taxable*
Treasury bonds	Taxable	Exempt
Corporate bonds	Taxable	Taxable
Equities	Taxable	Taxable

^{*}In many states, in-state municipal bonds are not subject to state income taxes.

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- 2 Historical tax rates were obtained from the respective annual IRS Schedule X and are representative of those experienced by an investor who earned \$100,000 in 2021 dollars throughout the period.
- 3 Interest income is still taxed at the individual's income tax rate.
- 4 The Jobs and Growth Tax Relief Reconciliation Act of 2003 provided for capital gain and dividend tax relief to individual tax pavers
- 5 The maximum tax rate on capital gains and dividend income is 20% as of 31 Dec 2017 for the 39.6% tax bracket.
- 6 The Tax Cuts and Jobs Act of 2017 lowered the marginal ordinary income tax rate and capped state and local tax (SALT) deductions at \$10,000, among other reductions.
- 7 Since state taxes are deductible from federal tax returns, the stated rate is slightly higher than the effective additional tax rate (state tax rate x [1 - federal income tax rate]).

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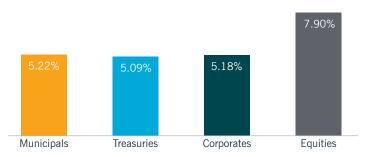
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WHAT DOES THIS MEAN AT THE STATE LEVEL?

As is typical in many states, realized capital gains are assumed to be taxed at the same rates as income. Due to the variation in state and local taxes, the impact on returns was not explicitly analyzed. The analysis assumed a 5% base state tax for both capital gains and income.^{6,7}

After-tax returns with a 5% state tax, 2002-2021

Adjusted for federal deduction of state taxes



not come to pass. This material may contain "forward-looking" information that is not purely historical in nature. Such information may include, among other things, projections, forecasts, estimates of market returns, and proposed or expected portfolio composition. Any changes to assumptions that may have been made in preparing this material could have a material impact on the information presented herein by way of example. Past performance is no guarantee of future results. Investing involves risk; principal loss is possible.

All information has been obtained from sources believed to be reliable, but its accuracy is not guaranteed. There is no representation or warranty as to the current accuracy, reliability or completeness of, nor liability for, decisions based on such information and it should not be relied on as such. For term definitions and index descriptions, please access the glossary on nuveen.com. Please note, it is not possible to invest directly in an index.

This study is based on historical data gathered from sources we consider to be reliable and consistent. The methodology applied and results produced by this study indicate past investment performance of market indices over the 01 Jan 2002 - 31 Dec 2021 time period exclusively and in no way should be consideredrepresentative of the past performance of any investment product or predictive of future investment expectations and performance for the municipal market or investment products. Investors should consult with their professional advisors before making any tax or investment decisions.

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