

May 2021

A Malarkey-Free Analysis of the Impact of the Biden Tax Plan on Equity Investors

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Election Day 2020 has come and gone. Following failed attempts by the Trump administration to block the path to the White House, the future occupant of 1600 Pennsylvania Avenue appears to be Joe Biden. After winning back the blue-wall states of Michigan, Wisconsin, and Pennsylvania, Biden ultimately secured the 270 electoral votes required for victory. Despite Biden's edge in the Electoral College, a blue wave of Democratic control of both sides of Congress in addition to the presidency didn't materialize. Democratic losses in the House and underperformance in a few key Senate races all but ensure that Republicans will continue to control the latter, with Senate runoffs in early January hanging in the balance.

This divided political environment makes sweeping Democratic policy changes, including tax policy, less likely. More likely is the possibility of a resumption of the status quo, with some potential for marginal tax policy changes. Be that as it may, we proceed with an analysis of the Biden tax plan to provide an understanding of the direction and magnitude of the impact on equity tax management given his proposed policy goals.

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How would Biden's plans change tax rates?

The Biden campaign has put forward three main tax policy changes applicable to the taxable equity investor, all of which involve an increase in taxes. First, the campaign proposes reversing the 2017 tax cut for top earners by increasing the income tax rate from 37% to 39.6%, a return to Obama-era rates. The additional net investment income tax (NIIT) of 3.8% would also remain intact for a combined top federal rate of 43.4%.

Second, for households with adjusted gross income (AGI) of more than \$1 million, Biden proposes removing preferential treatment for assets held for more than a year by taxing realized gains and losses at regular income rates rather than lower capital gains rates. Notably, not all earners in the highest income bracket—currently \$518,400 for individuals, declining to \$400,000 as proposed by Biden—will also meet the threshold at which long-term preferential treatment is disallowed.

Third, the Biden campaign proposes abolishing the step-up in cost basis for an inherited investment and a reversion to the pre-2017 estate tax exemption level of \$3.5 million.

The value of tax management under Biden's plan

The first two changes noted above are easy enough to model: higher income tax rates coupled with taxing long-term gains at those higher rates rather than at current capital gains rates. To model what could happen, we conducted 10,000 simulated trials of optimized large-cap portfolios versus a low-turnover benchmark, rebalancing quarterly over 10 years. We repeated the trials across three different expected return environments and for three different average stock volatility environments.

We repeated the trials for three tax regimes: the current tax environment under the Trump administration, a reversion to the Obama-era tax regime, and the prospective Biden tax plan. We assume the investor is in the highest marginal income bracket, with an AGI of more than \$1 million. We included the NIIT surcharge, and we initially assume the investor is tax averse and inclined to donate securities to avoid liquidation taxes.

Figure 1 below indicates the interquartile range of annualized tax alpha results for the three tax regimes for various volatility and return assumptions. A few important notes on these simulated results:

- Higher tax rates generally increase the value of tax management.
- The loss of preferential treatment for long-term holdings generally increases the value of tax management.
- The combined impact of these two changes is an average increase in preliquidation tax alpha of around 0.40%.
- The loss of preferential treatment disproportionately increases the importance of gains deferral versus tax-loss harvesting in low-volatility and high-return environments.

25% stock volatility 3.50 Current Obama Biden 3.00 2.49 2.50 1.92 2.00 1.80 1.50 1.28 1.36 1.00 0.90 0.87 0.84 0.97 0.90 0.52 0.50 0.49 0.68 0.55 0.34 0.36 0.00 0.20 0.22 -2% 6% 12% 35% stock volatility 3.50 Current Obama Biden 3.02 3.00 2.58 2.50 2.41 1.99 2.00 1.60 1.49 1.49 1.50 1.14 1.05 1.37 1.00 1.27 1.06 0.86 0.50 -0.750.70 0.52 0.48 0.00 -2% 6% 12% 45% stock volatility 3.50 3.23 3.08 Current Obama Biden 3.00 2.85 2.53 2.50 2.25 2.12 2.05 2.00 1.64 1.95 1.50 1.71 1.58 1.40 1.00 1.14 1.11 1.04 0.84 0.50 0.77 0.00 -2% 6% 12%

Figure 1: Interquartile range of tax alpha in different market environments (simulated)

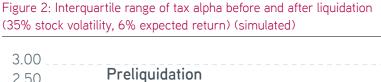
Source: Parametric, 9/30/2020. Simulated results are hypothetical and are provided for illustrative purposes only. They do not reflect the experience of any investor and should not be relied upon to make investment decisions. These results do not reflect or estimate the performance of any strategy offered by Parametric. Simulated returns reflect the reinvestment of dividends and other earnings and include the deduction of advisory fees (0.35%) and transaction costs (0.10%). Tax alpha is the difference between a portfolio's after-tax excess return (net of fees) and its pre-tax excess return (gross of fees). A portfolio's excess return is the difference between the portfolio's return and that of its benchmark. See Disclosures for simulation methodology and additional information.

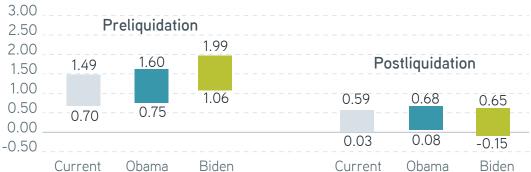
The third policy change—loss of cost-basis step up—is the murkiest to analyze. It's unclear how or even whether a lower estate tax threshold would interact with the removal of a step-up in cost basis. It's also unclear whether an inherited investment would qualify as a change of beneficial ownership and a compulsory taxable event, or whether gains could be deferred indefinitely. However, most estimators assume the plan would resemble a never-adopted Obama-era proposal that would have taxed capital gains at death. The elimination of step-up would reduce the incentive for the owner to continue deferring gains, at least if the investor thought there wouldn't be any future reversal of such a policy.

However, to assist in analyzing this question, we explore how the value of tax management changes in the event of either voluntary or compulsory liquidation, fully realizing all deferred gains.

We'd intuitively expect the loss of preferential treatment for earners over \$1 million and the reversion of the tax rate on those assets to regular income rates to reduce the postliquidation value of tax management. An investor who held an asset for 10 years would now be paying nearly twice the tax rate, regardless of the actual holding period. To be sure, the liquidation tax drag on the portfolio is substantially larger in a postliquidation scenario, absent long-term capital gains (LTCG) tax rates. Perhaps less intuitively, the benchmark to which we compare ourselves is impacted by the same policy change as the portfolio. On balance the benefits of tax management are modestly reduced postliquidation.

Figure 2 depicts annual tax alpha net of fees preliquidation compared to the postliquidation value of the same measure from the simulation. For simplicity's sake, we focus on the 6% expected return and midrange volatility environments across the three different tax regimes. The current and Obama-era rates benefit from the holding period rate differential, and the Obama era's modestly better performance carries through from preliquidation to postliquidation. This makes sense, since both regimes are being taxed at the same long-term rate at liquidation. The liquidation tax drag in these two regimes is the difference between the preliquidation benefit and the postliquidation benefit. It varies by path, but on average this liquidation drag is about 75 basis points (bps). The postliquidation tax alpha is what remains and ranges between zero and 60 bps in the current environment, rising slightly higher in the Obama era.





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The Biden plan trades off tax-loss harvesting and gains deferral in early years for gains realization at liquidation all at one common tax rate. The additional annual benefits it accrues over the life of the portfolio compared with the other tax regimes are offset by the larger liquidation tax drag, which averages 125 bps. The benefits at liquidation in all three regimes vary but land in a similar place, with the Biden regime slightly lower on average because of the disproportionately large liquidation tax drag.

The above examination of postliquidation tax alpha shows there's still value in tax management without a holding period differential. It underscores the importance of comparing the after-tax portfolio with some version of an after-tax benchmark, whether a fully replicating shadow index or an exchange-traded fund (ETF). In other words, we need to ask what the alternative strategy could be in a postliquidation environment. Simply investing in an ETF, for example, is also subject to significant gains at liquidation. The benefits of tax management in the environment without preferential LTCG treatment are rooted in the real compounding benefit of gains deferral, which is larger in longer time horizons and higher-return environments.

The above depictions represent two sanitized bookend outcomes that ignore all the customization and tax-management tactics that could happen in the 10 years leading up to the end of the time horizon. Very rarely do investors move through their time horizon without revisiting their strategy at all. There are several qualitative and quantitative ways an investor in a separately managed account (SMA) can benefit from customization: through tax-efficient transitions and redemptions, greater control over underlying exposure, optimized incorporation of concentrated positions, efficient charitable gifting, and year-end planning.

Should investors intentionally take gains with the prospect of future rate increases?

The loss of preferential treatment for long-term gains amounts to the equivalent of a very large tax increase and effectively taxes all investment gains as regular income. Investors might ask if they should accelerate the timing of gains realization if they expect higher tax rates in the future. To examine this question, consider two portfolios. The first portfolio realizes gains today and reinvests proceeds, and the portfolio consistently generates the investor's expected return over the course of the investor's time horizon. The second portfolio defers all gains and also consistently generates the same expected return. At the end of the time horizon, both portfolios realize all gains at a new, higher tax rate, at which point we compare the relative after-tax performance of each portfolio.

The Biden tax plan proposes the elimination of advantageous capital gains rates for investors with income over \$1 million, implying a tax increase of 19.6 percentage points from 23.8% to 43.4%. Given this change, we can solve for the breakeven investment horizon for varying expected return environments. The mathematics are displayed in figure 3: An investment horizon lower than the breakeven implies that it may be advantageous for the investor to pay now, while an investment horizon greater than the breakeven implies it may be advantageous to continue deferring gains. For example, an investor with a 10% equity return expectation and an eight-year horizon should consider paying now. The same investor with a 12-year time horizon may benefit from deferring until the end of the 12 years.



Figure 3: Determining the breakeven investment horizon across expected return environments

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A large change in the tax rate, should it come to pass, makes paying now look particularly attractive, especially assuming low future expected returns. For return expectations in the 6% to 10% range, which is consistent with conventional wisdom, the time horizon required to justify paying now decreases by one to two years for each 1% increase in expected return. Because of the likelihood of a divided government and legislative compromise, the sensible reader might be interested in what a modest tax increase on earners over \$1 million might look like. More incremental adjustments to LTCG rates—up to 5%, for example—drastically change the analysis, suggesting that continuing to defer gains makes more sense. Tax-aware investors will be watching the legislative process closely in 2021 and beyond to see if and how this policy takes shape.

The decision of whether to pay now or later doesn't depend on portfolio size or appreciation. Although each investor has different sensitivities to how investments are taxed, our analysis provides some guidance that depends on only a handful of parameters: the tax rate in the current regime, the tax rate in the future regime, the expected return on equities, and the investor's time horizon. As long the investor defers gains, we can analyze the problem solely on the basis of the variables at hand.

How should investors plan to change their tax strategies?

When conditions change, it becomes necessary for investors to change their outlooks. The prospect of these tax policy changes suggests several points investors will want to consider:

- The combination of the higher rates and the loss of preferential treatment for long-term holdings may encourage some to shift to a more aggressive approach to tax-loss harvesting.
- Managing income around the threshold at which LTCG rates are lost will be important.
 Investors may opt to intentionally take gains as a one-time or ongoing strategy, constantly monitoring income and revising the approach depending on their income for the year.
 Refreshing cost basis also enhances future tax-loss harvesting.
- The changes will increase the importance of systematic charitable gifting. Although beyond the scope of this brief, the increases in tax rates amplify the triple benefits of the program: tax deductibility of the gift, capital gains avoidance, and enhanced future tax-loss harvesting with fresh capital injection. For a detailed discussion of systematic charitable gifting, we refer the reader to our 2020 research brief "Maximizing Tax Benefits Through Systematic Charitable Gifting," which is available upon request.

However, many investors in benchmark-tracking SMAs may find that standard approaches to tax-loss harvesting continue to provide an effective balance between tracking error and tax benefit. As a result, most are unlikely to feel a need to alter this approach under a prospective Biden tax regime, especially in light of the uncertainty around policy implementation.

Conclusion

This paper has examined the major tax provisions proposed by President-elect Biden and their impact on equity tax management. In general, we conclude the following:

- The increase in the highest marginal tax rate from 37% to 39.8% amounts to a reversion to the Obama era and modestly increased tax alpha on a pre- and postliquidation basis.
- For investors with income of greater than \$1 million, the loss of preferential tax treatment for LTCG increases preliquidation tax alpha by 30 to 40 bps but modestly decreases postliquidation tax alpha.
- A large increase in the tax rate on LTCG and the potential for the elimination of cost-basis step-up should motivate investors with significant long-term gains to consider realizing gains prior to a rate increase depending on the investor's views and time horizon.

The combined effect of Biden's tax proposals could surely alter behavior of the tax-aware investor. However, a divided or Republican-controlled Senate will make for a less orderly path from proposal to law. More pressing issues related to public health and the state of the economy are likely take precedence over tax policy. This means most investors will be able to wait and see how the drama unfolds. Following the fog and tumult of the 2020 election and a difficult year all around, the least investors can ask for is a chance to let the legislative process slow down, providing time to analyze the impacts of potential tax increases on their lives and portfolios. Perhaps a divided government is our friend after all.

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Simulation assumptions and methodology: The simulation assumes quarterly rebalancing. Simulated returns reflect the reinvestment of dividends and other earnings and include the deduction of advisory fees (0.35%) and transaction costs (0.10%). Monte Carlo simulations randomly generate many possible return paths in order to produce a distribution of portfolio and benchmark return outcomes. This allows us to explore how tax management might perform under various market scenarios. The key inputs for the Monte Carlo simulation referenced here were:

- Number of stocks = 500
- Number of scenarios = 10,000
- Initial portfolio weights = similar to the profile of a US large-cap index
- Annual one-way turnover = 5% for the benchmark
- Average annual price return, volatility, and correlation between stocks = varied
- Average annual dividend return = 2%

The portfolio and benchmark weights at the beginning of the simulation are based on a predefined weight distribution similar to a US large-cap index and then drifted through time using the simulated returns. Each year, 5% turnover is applied to a random portion of the benchmark portfolio in order to mimic the typical turnover found in a large-cap index. Turnover forces us to buy or sell securities that might otherwise not have met our tax-management criteria, creating somewhat more realistic realized gains and losses. The portfolio is loss-harvested four times per year. After-tax return incorporates taxes on any realized gains or losses and dividends received. We defined each market environment by an expected market total return and level of security volatility. With three market return levels (-2%, 6%, 12%) and three security volatility levels (25%, 35%, 45%), there are nine possible market environments. For each environment, we generated 10 years of monthly returns for 10,000 portfolios of 500 securities each. Each security's monthly return was drawn from a normal distribution with a mean and standard deviation equal to the monthly expected market price return and assumed security volatility, respectively.

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