TAX AS AN INVESTMENT ISSUE

Weighing the impact of tax loss harvesting on long-term saving goals

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IN BRIEF

• Higher taxes are likely in the wake of a major boost in fiscal stimulus, unleashed in response to COVID-19.

• Higher taxes clearly present important implications for investors and savers – especially for those with long-term saving goals and those investing for retirement. To address these implications, investors can use active tax management, a valuable but often overlooked component of portfolio strategy.

• In particular, investors can draw on established principles and tools to manage short-term tax liabilities. In this way, long-term savers properly account for the long-term tax liabilities that are due. At the same time, they take reasonable steps to manage liabilities that arise purely from short-term market moves – moves that might otherwise damage long-term, after-tax investment outcomes.

• To illustrate the impact of active tax management, we simulate the experiences of three personas as they invest from age 50 to retirement at age 65. The analysis demonstrates that active tax management – specifically, harvesting unrealized losses – can offer significant benefits to investors holding taxable accounts. While tax loss harvesting is generally well understood, many investors may not fully appreciate the value of doing it systematically and in a deliberate fashion over an extended period of time.

• Tax loss harvesting is a useful countercyclical tool that investors can employ to strengthen their long-term post-tax outcomes.
IN THE WAKE OF COVID-19

Over the last two years, governments around the globe have made public spending commitments totaling almost USD 20 trillion in response to the COVID-19 pandemic. Such fiscal intervention, unprecedented in peacetime, leaves the ratio of government debt-to-GDP at a level last seen in the late 1940s. It also presents governments with a dilemma: how to balance the books at a time when there is little political appetite to drastically cut government programs and social safety nets, and policymakers are anxious not to do anything that would compromise economic growth (EXHIBITS 1A and 1B).

Post-pandemic spending commitments have swollen outstanding public debt

EXHIBIT 1A: THE FISCAL RESPONSE TO COVID-19 REPRESENTS ALMOST USD 18 TRILLION, OR 19% OF G20 GDP

![](image1a.png)

Source: IMF World Economic Outlook and Fiscal Monitor; data as of April 2021.

EXHIBIT 1B: HISTORICAL PATTERNS OF GENERAL GOVERNMENT DEBT (PERCENT OF GDP)

![](image1b.png)

Source: International Monetary Fund (IMF) Historical Public Debt Database, IMF World Economic Outlook database, Maddison Project Database, IMF staff calculations; data as of April 2021.

Note: The aggregate public-debt-to-GDP series for advanced economies and emerging market economies is based on a constant sample of 25 and 27 countries, respectively, weighted by GDP in purchasing power parity terms.

Even as governments in most developed nations can borrow at historically low rates, budget deficits will continue to be significant. In the U.S., given the size and trajectory of the federal budget deficit (EXHIBIT 2), some higher taxes seem likely.

Budget deficits will be significant even as low rates help ease the burden

EXHIBIT 2: PROJECTED BUDGET DEFICIT AND OUTSTANDING DEBT, USD TRILLION

![](image2.png)

Source: Congressional Budget Office (July 2021 for projections).

It remains to be seen precisely who will pay those higher taxes and what form they will take. As this is written, Congress is poised to enact a range of higher taxes as part of a plan to raise over USD 2 trillion in new revenue over the next decade. In whatever form they take, higher taxes clearly have important implications for investors and savers – especially for those saving and investing for retirement.

In this paper, we first explore how governments might choose to raise revenues and the trade-offs these decisions will require. We then highlight some of the available tax management strategies, using an analytical framework to estimate the impact of different potential tax policies on savings at retirement. As we consider how higher taxes might affect asset allocation, we focus on how active tax management can be a worthwhile, if often overlooked, component of portfolio management – in particular for long-term savers.

Increased tax rates are set to affect after-tax outcomes of those who rely on long-term savings for capital appreciation and income. Long-term savers are clearly liable for long-term taxes. However, where short-term liabilities arise, a range of well-established active tax management strategies can be helpful. Investors in the U.S. can work within Internal Revenue Service (IRS) guidelines to ensure that they appropriately manage short-term tax liabilities in a way that...
matches their long-term goals. Essentially, they aim to convert the short-term tax liabilities into long-term tax liabilities. Such active strategies provide long-term savers with opportunities to improve their after-tax outcomes for retirement and other lifetime saving goals.

Today, savers face a dual challenge – lower returns than in the past, and an implicit assumption that they must take charge of their own investments. With defined contribution (DC) plans now common and defined benefit (DB) plans increasingly rare, MIT professor Robert Merton notes a “dramatic shift among developed nations toward putting retirement risks and responsibilities in the hands of individuals.” Those risks are real. But in our view, appropriately managing short-term liabilities that arise from short-run fluctuations in asset markets can align with long-term saving goals and contribute meaningfully to investment outcomes at retirement.

Tax types vary by revenue potential and relative political popularity

<table>
<thead>
<tr>
<th>LEVY</th>
<th>SPECIFIC TAX</th>
<th>TRADE-OFFS/CONSIDERATIONS</th>
<th>REGIONAL IMPACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDIVIDUALS</td>
<td>Income tax</td>
<td>Simple to administer but limited potential to boost government revenues; politically difficult to push through hikes.</td>
<td>All, but less scope to raise in some already higher tax countries</td>
</tr>
<tr>
<td></td>
<td>Capital gains tax</td>
<td>Fairly simple to administer; progressive; good potential for revenue-raising but subject to market risk.</td>
<td>All</td>
</tr>
<tr>
<td></td>
<td>Annual wealth tax</td>
<td>Harder to implement with assets across jurisdictions; patchy track record of collection.</td>
<td>Possible, if unlikely in the U.S.; possible in the EU, UK</td>
</tr>
<tr>
<td></td>
<td>Estate/inheritance taxes</td>
<td>Levied on accumulated wealth at the time of death, typically above a threshold. Large loopholes (trusts, etc.) may enable estate tax avoidance. Planning with the use of various sanctioned trusts and related party transactions may materially reduce or avoid these taxes.</td>
<td>Most developed nations</td>
</tr>
<tr>
<td>CORPORATIONS</td>
<td>Corporate tax</td>
<td>Simple to administer, reliable revenue raiser, broadly politically popular; low corporate taxation used to attract foreign direct investments (FDI) in small open economies (e.g., Ireland); main trade-off is with raising revenue vs. attracting foreign investment.</td>
<td>All</td>
</tr>
<tr>
<td>TRANSACTIONS</td>
<td>Sales tax</td>
<td>Exists in most jurisdictions; can distort consumption and inflation metrics in the short term; can be somewhat regressive.</td>
<td>All</td>
</tr>
<tr>
<td></td>
<td>Stamp duty</td>
<td>Levied on large transactions in some regions; can distort pricing, and may be regressive, as it targets the prospective asset owner, not the existing beneficial owner.</td>
<td>Exists in UK for some transactions</td>
</tr>
<tr>
<td></td>
<td>Financial transaction (Tobin) tax*</td>
<td>Imposes a levy on financial market transactions; politically popular, especially in Europe post-global financial crisis; while it may limit speculative behavior in markets, it is likely to be passed on to end investors and savers via lower returns.</td>
<td>Not likely in U.S., considered by eurozone</td>
</tr>
</tbody>
</table>

Source: J.P. Morgan Asset Management; data as of October 2021.

* A Tobin tax is a levy on financial transactions, in particular currency transactions.

U.S. TAXES IN A GLOBAL CONTEXT AND THE CHOICES FACING POLICYMAKERS

The U.S. is sometimes viewed as a relatively low tax economy, especially by observers in most other developed economies. But the truth is that in both income tax and corporate tax terms, U.S. tax levels are either at or a little above median global levels (EXHIBIT 4). Capital gains taxes, however, are below the global median.

U.S. income and corporate taxes are at or slightly above the global median

EXHIBIT 4A: TOP PERSONAL INCOME TAX RATE BY MARKET, 2020

Source: OECD, J.P. Morgan Asset Management.

EXHIBIT 4B: COMBINED CORPORATE INCOME TAX RATE BY MARKET, 2020

Source: Tax Foundation, J.P. Morgan Asset Management. Note: The U.S. rate includes an average of state taxes, which range from 0% to 11.5%.

EXHIBIT 4C: CAPITAL GAINS TAX RATE BY MARKET, APRIL 2021

In the U.S., as this is written, Congress looks likely to increase taxes to address the budget deficit and secure funding for other initiatives, including infrastructure.\(^2\)

Below we examine the feasibility of raising corporate and individual taxes:

**CORPORATE TAXES:** According to both the Congressional Budget Office (CBO) and independent studies, raising the corporate tax rate provides a meaningful revenue boost. The latest proposal in Congress would leave intact the 21% corporate tax rate but impose a 15% minimum tax on corporations with reported financial statement income in excess of USD 1 billion. It would also raise taxes on U.S. corporations’ foreign income. The G7 took a significant step toward global tax coordination in June when it agreed to establish a minimum corporate tax rate of 15%. This tax would require companies to pay at least 15% in each foreign country where they operate. Further momentum came in late October when the G20 agreed that companies should pay a minimum corporate tax rate of 15% in each of the countries in which they operate. Ongoing discussion may focus on closing loopholes.

**INDIVIDUAL TAXES:** Earlier Congressional proposals called for raising capital gains taxes from 20% to 25% and increasing the top marginal income tax rate from 37% to 39.6%, a 35-year high. The final outcome remains uncertain. As this is written, the latest proposal would impose a 5% surcharge on adjusted gross income over USD 10 million and an additional 3% surcharge on income over USD 25 million (**EXHIBIT 5**).

A 39.6% U.S. marginal income tax rate would mark a 35-year high

**WHY ARE WEALTH TAXES NOT USED MORE EXTENSIVELY?**

For the first time in many years, an annual wealth tax was under serious consideration in Washington. Congress briefly debated the details of a so-called “billionaire’s tax.” Taxpayers with more than USD 100 million in annual income or more than USD 1 billion in assets for three consecutive years would be subject to taxation of their unrealized capital gains.

Wealth taxes enjoy more apparent popular support in Europe, but their use is diminishing. In 1990, 12 OECD countries had wealth taxes. By 2017, the number had fallen to only four – France, Norway, Spain and Switzerland – and in 2018 France replaced its wealth tax with a property tax. European wealth taxes typically raised only about 0.2% of GDP in revenues. Given how little revenue they raised, it is not surprising that wealth taxes had “little effect on wealth distribution,” as one study noted.\(^4\)

As is the case in most developed economies, U.S. wealth is skewed toward assets: In 2020, U.S. families owned more than USD 101 trillion in financial assets and USD 39 trillion in nonfinancial assets.\(^5\) But even with advances in asset reporting and concerted efforts from regulators, it remains difficult to get a fair market value on many assets, such as art, jewelry, private enterprises and farmland. Identifying the beneficial owner of an asset is a further complication, and the IRS has significant difficulty collecting taxes for assets it cannot track.\(^6\) In jurisdictions that impose wealth taxes, avoidance is commonplace. Additionally, in the U.S. the legality of wealth taxes might be called into question on constitutional grounds.

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\(^6\) “Trends in the Internal Revenue Service’s Funding and Enforcement,” Congressional Budget Office, July 2020.
RAISING REVENUE THROUGH THE CAPITAL GAINS TAX

It’s no surprise that policymakers have turned to the prospect of higher capital gains taxes as a reliable way to raise revenue.

First, as discussed, U.S. capital gains taxes are low by international standards. Second, and critically, there’s a growing pool of assets to tax. Over the last 30 years, asset markets, as proxied by a U.S. 60/40 stock-bond portfolio, have experienced a compound annual real growth rate of almost 10% (EXHIBIT 6). The Federal Reserve estimates that the value of public equity and debt securities owned by U.S. households has doubled in just eight years – from USD 19 trillion in 2012 to USD 39 trillion in 2020. As more and more Americans move from saving to investing, and as access to capital markets becomes ever more democratized, the asset pool from which capital gains taxes are taken will likely grow.

Additionally, capital gains taxes are relatively progressive, impacting wealthier individuals, who typically own more assets. That’s a key appeal to politicians and policymakers. Almost 90% of the revenue from capital gains taxes is collected from the top 5% of earners. At a time when wealth inequality is a focus across the political spectrum, progressive tax hikes are likely to gain bipartisan support.

Finally, higher capital gains taxes are good revenue raisers. The CBO has studied the potential impact of higher income, capital gains and corporate taxes (EXHIBIT 7). Raising long-term capital gains (LTCG) by about 3% is roughly equal to increasing the top two income tax brackets by 1%. We expect policymakers broadly will be more inclined to raise capital gains taxes than income taxes.

Wages have roughly maintained purchasing power over the last three decades, but asset markets have grown tenfold in real terms (EXHIBIT 6: GROWTH IN WAGES AND ASSET MARKETS, 1988–2021)

How higher taxes might impact asset allocation over an investor’s saving life cycle

Higher capital gains taxes present important implications for investors – especially, savers who are investing over the long term and potentially accumulating meaningful capital appreciation. As savers near retirement, the emphasis shifts from capital appreciation to capital protection, and from reinvesting income and dividends to generating income.

As policymakers know, higher capital taxes are good revenue raisers

EXHIBIT 7: REVENUE RAISED IN DIFFERENT TAX HIKE SCENARIOS

<table>
<thead>
<tr>
<th>REVENUE RAISED (USD BILLION)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Raise all tax rates on ordinary income in the top two brackets by 1 percentage point</td>
</tr>
<tr>
<td>Raise long-term capital gains and qualified dividends by 2%</td>
</tr>
<tr>
<td>Increase corporate income tax by 1%</td>
</tr>
</tbody>
</table>

As the ratio of income and capital gains taxes changes, this can affect the investment choices and optimal asset allocation for a saver approaching or in retirement. For example, consider the implications for equities that typically generate the vast majority of their total return in the form of capital gains, now taxed at higher rates, as opposed to bonds that generate the vast majority of their total return in the form of income. As we’ve noted, with returns likely lower than in the past, appropriate, active tax management during the saving and investing life cycle can meaningfully enhance long-term investment outcomes at retirement.

To help illustrate the real impact on the lives of retirees, we simulate the experiences of three personas as they invest from age 50 to retirement at age 65 (EXHIBIT 8). Our analysis demonstrates the effects of different tax regimes and tax management strategies on investment outcomes. The results can be significant, especially in light of the diminished level of asset market returns we expect over the next decade.

### THE THREE PERSONAS

Our three personas, Alex, Bobby and Cameron, are all 50 years old, with different levels of wealth and significant differences in both asset allocation and risk tolerance. By many industry definitions, Alex would be categorized as affluent, while both Bobby and Cameron would be identified as high net worth savers.

We note that the average American faces a more precarious retirement than our three personas. For example, 65% of respondents in J.P. Morgan Asset Management’s 2021 Defined Contribution Plan Participant Survey say that in the past year they have not contributed the amount they believe they should to their retirement plan. Inadequate retirement savings continues to be a cause of concern for policymakers and industry specialists broadly.

At the same time, many (relatively) well-off U.S. households have maximized their tax-preferential savings opportunities and are accumulating significant wealth in taxable accounts to support their retirement. That presents its own challenge, as we will explore in the experiences of our three personas.

#### Tax management strategies incorporate the significant difference between short-term and long-term tax rates

<table>
<thead>
<tr>
<th>Saver</th>
<th>Total assets age 50</th>
<th>% Taxable at age 50</th>
<th>Short-term rate*</th>
<th>Long-term rate*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alex</td>
<td>USD 1mm</td>
<td>13%</td>
<td>32%</td>
<td>15%</td>
</tr>
<tr>
<td>Bobby</td>
<td>USD 5mm</td>
<td>50%</td>
<td>35%</td>
<td>20%</td>
</tr>
<tr>
<td>Cameron</td>
<td>USD 10mm</td>
<td>80%</td>
<td>37%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Source: J.P. Morgan Asset Management.

* Tax rates are determined assuming expected salary for each of these personas at age 50 and holding it flat throughout the analysis.

We note that all three of our personas are making the maximum contributions to their tax-advantaged retirement plans. We do not consider those savings as part of our analysis, but, as we will discuss, it helps explain the relative difference in the percentages they are saving in taxable accounts.

Alex is a successful professional with USD 1 million in assets at age 50, of which roughly 13% is held in taxable accounts. Alex regularly contributes 2% of wages to taxable accounts. Of the three savers, Alex has the most conservative equity allocation at retirement.

Bobby is a senior executive with USD 5 million in assets at age 50, with around 50% in taxable accounts. Bobby regularly adds to taxable accounts, steadily boosting the contribution rate as wealth grows. Bobby’s tax-shielded accounts are invested conservatively at retirement, but taxable accounts are more balanced, with a higher ending equity allocation than Alex’s.

Cameron, a successful business owner, has USD 10 million in assets, of which 80% is in taxable accounts at age 50. At opportune moments in the business, Cameron makes large account contributions. We assume that Cameron may have other income sources (e.g., real estate rental income) and is thus comfortable with more risk at retirement. Of our three savers, Cameron has the highest equity allocation at retirement.

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7 The profiles and assumptions have been constructed leveraging data from the Survey of Consumer Finances (SCF).

8 State taxes are assumed to be zero; excludes net investment income tax.

9 Our assumptions about what percentage of our savers’ wealth is held in taxable vs. non-taxable accounts draws on research from J.P. Morgan Asset Management Retirement.
**Back-test and simulations**

Our analysis focuses only on the taxable accounts for our three saver personas. For each saver, we conducted a back-test of their portfolios from ages 30-50 to arrive at a sample portfolio at age 50 using tax lot level data (a tax lot is a record of a transaction’s cost basis). We then simulated a range of asset returns over the next 15 years (ages 50-65). Our analysis evaluates how outcomes compare at age 65 with and without active tax management.

One principle is quite clear. Active tax management — specifically, systematically harvesting unrealized losses — can offer significant benefits to investors holding taxable accounts. The benefits of tax loss harvesting are generally well understood. Investors typically harvest losses at year-end to offset realized short-term gains. But many investors do not fully appreciate the value of doing it in a systematic and deliberate fashion over an extended period of time.

Short-term capital gains are taxed at the regular income rates, which are generally higher than the rates on long-term gains. IRS rules penalize short-term speculative trading, but at the same time the rules can help investors pursuing long-term objectives, like saving for retirement. Here’s how it works:

In the regular rebalancing of a portfolio, long-term investors tend to realize some short-term capital gains. This means that a long-term investor may face an excessive tax burden because of inefficiencies in the implementation of an investment plan. Active tax management portfolio strategies help address this issue, better aligning the tax liabilities of retirement savers with their investment goals.

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**Quantifying the benefits of active tax management**

Our analysis of the three personas underscores the value of active tax management. A portfolio that employed active tax management during the 15 years we analyzed delivers a meaningfully different — and generally stronger — post-tax performance than a portfolio that did not employ it. Here, we look at two key metrics, tax savings and total losses carried forward, to quantify the value of active tax management.

**Tax savings**

For the three personas, we calculated the total tax savings using the tax rates included in our assumptions. The median potential tax saving ranged from ~28 basis points (bps)–51bps, with the 10th and 90th percentile levels indicated in Exhibit 9. With the expected return for a 60/40 portfolio around 4%, according to our Long-Term Capital Market Assumptions, active tax management clearly provides an additional potential source of after-tax returns.

**Median potential tax saving ranges from around 28bps to 51bps**

<table>
<thead>
<tr>
<th>ExHIBIT 9: POTENTIAL TAX SAVINGS (MEDIAN, 10TH AND 90TH PERCENTILE) FOR EACH STYLIZED SAVER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Median</strong></td>
</tr>
<tr>
<td>MA/Alex, moderate, USD 1M</td>
</tr>
<tr>
<td>HNW/Bobby, growth, USD 5M</td>
</tr>
<tr>
<td>UHNW/Cameron, aggressive, USD 10M</td>
</tr>
</tbody>
</table>


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10 The simulated investment outcomes are based on Long-Term Capital Market Assumptions (LTCA) 10- to 15-year horizon returns; glide path of asset allocation (across stocks/bonds/cash/real estate/private equity); risk tolerance at end of glide path; typical percentage of taxable accounts vs. total asset holdings; and the extent of the use of tax management over the forward horizon.

11 Saver profiles and assumptions draw on data from the Survey of Consumer Finances. We assume a simplified version of tax loss harvesting using pooled vehicles in one taxable account. For each 50-year-old saver, we simulate 50 sets of monthly asset returns over the next 15 years using our Long-Term Capital Market Assumptions. We assume investment in multi-asset portfolios that hold only ETFs. All distribution statistics are calculated based on the 50 paths and the 15-year horizon. We compare tax-managed portfolios that use tax loss harvesting (TLH) with tax-agnostic portfolios. We assume the tax-agnostic portfolio is rebalanced every quarter to a target model or when a contribution occurs. We assume that all accounts follow the HICO rule, under which the tax lots with the highest cost basis are the first to be sold.

In tax loss harvesting, an investor sells a security (primary) in the portfolio that has underperformed expectations. This creates a positive tax loss realization that is first used to offset realized gains of the same character. Then any excess losses may be carried forward for use against subsequent year gain realizations. The primary security is replaced with a similar security (proxy). We note that IRS wash-sale rules prohibit an abuse of the strategy in which essentially identical securities are swapped within 30 days and is invested in the same model as the actual account but does not incorporate 55ip’s tax-smart technology for rebalancing. Gains and losses are accrued for both the actual account and the shadow account to produce the estimated tax bill.
Timing can also help. Not surprisingly, losses may be more commonly harvested during market downturns. As a result, the opportunities to harvest losses tend to increase when market performance is poor. We conducted 750 simulations (15 years, 50 simulations per year) of market returns. As seen in EXHIBIT 10, the tax savings benefit for Cameron’s portfolio increases as the market returns become more negative (as it does for our other two savers). Simply put, long-term savers get the welcome benefit of future tax offsets during a period of unwelcome market losses. In sum, tax loss harvesting is a useful countercyclical tool investors can employ to enhance their long-term post-tax outcomes.

**Tax loss harvesting can be a useful countercyclical tool**

**EXHIBIT 10: TAX SAVINGS IN DIFFERENT MARKET CONDITIONS**

A portfolio with a higher equity concentration typically provides a greater opportunity to harvest losses

**EXHIBIT 11: LOSSES CARRIED FORWARD WITH AND WITHOUT TAX MANAGEMENT, AS A PERCENT OF PORTFOLIO VALUE**

Quantifying total losses carried forward

Total losses carried forward (TLCF) are the cumulative losses harvested net of the capital gains that were offset. Essentially, TLCF is a “bank” of harvested losses that can be used to help offset future tax liabilities associated with capital gains.

On average, our three savers had accumulated TLCF that represented about 4%–7% of the portfolio value at age 65. The TLCF at age 65 for the tax-managed portfolio is about 2.5x that of the tax-agnostic portfolio. Generally, the more equity a portfolio has, the greater the ability to harvest losses and generate TLCF, as seen in a comparison of Cameron’s and Alex’s TLCF (EXHIBIT 11).
Tax loss harvesting can also serve as a tool to manage market volatility. Consider the ordinary exercise of portfolio rebalancing. When investors rebalance portfolios with no view to tax management, they can generate unexpected tax liabilities, which can fluctuate greatly from year to year. Imagine that an investor realized capital gains at the beginning of a year that ended with significant portfolio losses. A portfolio that did not employ active tax management would most likely incur short-term tax liabilities on the realized gains while not claiming any of the benefits of harvesting losses through large drawdowns.

To quantify the benefit of tax loss harvesting during periods of market drawdowns, approximately 40% of the 750 simulated yearly returns associated with Cameron’s portfolios occurred in a down market. The portfolio with active tax management realized short-term tax liabilities on its net capital gains in only 11% of those down periods. On the other hand, the tax-agnostic portfolio encountered short-term tax liabilities in three times as many scenarios (34%) because it did not benefit from offsetting gains with harvested losses (EXHIBIT 12).

In short, even if savers are entirely focused on their long-term investment outcomes, inevitable volatility in markets, together with consequent rebalancing, can incur short-term liabilities. Addressing this issue with established tax management tools better aligns the day-to-day operational management of a portfolio with its long-term saving goals.

While this paper has focused explicitly on tax loss harvesting, some investors may want to use additional tools to further enhance their long-term post-tax investment outcomes. For instance, high net worth individuals may opt to use individual securities to implement their desired risk exposures. Such “direct indexing” would allow their tax loss harvesting strategies to leverage security-level price dispersion to potentially improve after-tax returns.

Investors with high wealth distributed across taxable and tax-exempt accounts can further benefit from a more tax-aware approach to asset allocation. This could include improved asset location and holistic portfolio rebalancing strategies that take advantage of the tax-exempt portion of their overall holdings. For instance, fixed income securities generating income taxed at the personal income rate, or high turnover active strategies generating short-term capital gains, may be best located in tax-exempt accounts. (Analysis of direct indexing and tax location strategies is beyond the scope of this paper.)

### Tax-agnostic portfolios realize short-term tax liabilities much more frequently than their tax-managed counterparts

**EXHIBIT 12: FREQUENCY OF SHORT TERM TAX LIABILITIES IN DOWN MARKETS**

<table>
<thead>
<tr>
<th>750 total periods considered</th>
<th>TAX MANAGED</th>
<th>TAX AGNOSTIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>When the market is going down...</td>
<td>Moderate</td>
<td>Growth</td>
</tr>
<tr>
<td># of down markets</td>
<td>230</td>
<td>280</td>
</tr>
<tr>
<td># of down + positive net gains</td>
<td>44</td>
<td>44</td>
</tr>
<tr>
<td>% of positive net gains</td>
<td>19%</td>
<td>16%</td>
</tr>
</tbody>
</table>

CONCLUSION

Benjamin Franklin was right when he said that one of life’s certainties is taxes, and despite generous tax breaks available for retirement saving, long-term investors continue to be liable for taxes on long-term gains. At the same time, the random walk of asset prices and prudent portfolio rebalancing may incur short-term tax liabilities. Just as investors with an eye on their long-term saving goals should seek to manage through short-term fluctuations in asset markets, so, too, can they draw on established principles and tools to manage short-term tax liabilities. In this way, long-term savers properly account for the long-term tax liabilities that are due. At the same time, they take reasonable steps to manage liabilities that arise purely from short-term market moves – moves that might otherwise damage long-term, after-tax investment outcomes.

Higher taxes do seem all but inevitable, in the U.S. and across many developed economies. With greater fiscal stimulus post-COVID-19 comes a greater need for governments to find sources of revenue through higher taxation. By extension, the impact of active tax management on the post-tax outcomes for long-term savers will increase as prevailing tax rates rise. Although the analytical component of this paper is focused on the U.S., other regions face similar pressures. Higher capital gains taxes present a particular challenge, as we have discussed. While tax rates move broadly higher, the ability to deploy active tax management should help improve long-term post-tax returns for savers already facing a low return environment across many asset markets.
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