

Overview

In this white paper, we will review opportunities for taxable investors to improve upon the outcomes of their overall portfolio. Our *vision for the future* includes the following steps:

- Investors are likely to increase their use of custom direct indexing portfolios vs. pooled vehicles such as mutual funds and ETFs, given the potential tax and customization benefits that separately managed accounts (SMAs) offer. In fact, we anticipate SMAs eventually overtaking both mutual funds and ETFs, just as ETFs took market share from mutual funds.
- Investors' overall market exposure will be managed using a tax-optimized broad market portfolio reflecting the values of the investor, combined with multiple custom thematic satellite portfolios, depending on each investor's interests
- Algorithmic stock-level tax-loss harvesting is deployed across the entire portfolio to add tax-alpha, which we believe can add significant value across market environments

Introduction

Many investors are rethinking their asset allocations and the way they construct their portfolios, driven by shifting long-term return expectations for both active and passive investments and changes in views on how to best implement various asset classes through tax-efficient and low-cost methods. The key dimensions that every investor should evaluate within their portfolio construction include the choice of asset classes, determination of the mix between active and passive investments and how each of these investments is implemented.

Looking at the way portfolios are constructed today, we can conclude that most investors rely on traditional asset allocation models and construct their portfolios around a mixture of actively and passively managed mutual funds or exchange-traded funds (ETFs). For example, based on a 2021 Cerulli survey registered investment advisors had on average 42% of assets in US equities, 54% of their total portfolios invested through mutual funds and ETFs, and 90% of the advisors agreed that active management was suitable for some asset classes but that passive management helped minimize overall portfolio fees, with 61% of all investments managed actively on average.¹

Within public equities, a common approach has been to use passive investments for areas considered most efficient - such as US large cap - and then complementing the portfolio with allocations to satellite managers ("core-satellite") in specialty areas such as value, growth, small

¹ The Cerulli Report, U.S. RIA Marketplace 2021

cap and international equities. This method assumes that dimensions that matter are traditional value and size factors and that managers specializing in sub-segments defined by such traditional factors can add value - we believe that these tenets should be questioned in a world where technological change is disrupting nearly every industry.

There are new emergent strategies which may provide a better way for investors to allocate their equity and other capital-appreciation seeking investments – specifically through the use of tax-managed direct indexing, customized separately managed accounts and thematic investments.

- **Tax management:** The most common portfolio building blocks - mutual funds - are tax-inefficient and in a world where prospective returns are not as attractive as they were, the impact of taxes becomes even more important. Direct indexing strategies can incorporate tax management and improve upon these outcomes.
- **Mass customization:** Investment technology has evolved to a point where investors can include more personalized and customized dimensions into their portfolio construction process, resulting in features beyond investment performance. For example, rise of values-based investing (e.g. ESG or impact) allows investors to both benefit from overall market performance and specific investment themes that align with their values. Direct indexing accomplishes this in a very cost-effective way.
- **Thematic investing:** In a world where new technologies are disrupting almost every sector, we believe it is possible that thematic investing through bespoke portfolios leads to better outcomes - but identifying those themes may not fit within the traditional frameworks for portfolio construction (for example traditional styles or sectors) and necessitate a new approach.

Investors need to find a way to navigate this environment of changing expectations. In the following sections we will explore each of these strategies and derive a path for investors seeking to improve upon the outcomes of their overall portfolio.

Tax Management: Efficiency Is Important

Mutual funds have existed in the U.S. since the 1940s and are a convenient vehicle for personal investors to gain access to markets and attain significant diversification with just one purchase. Given that many fund entities are themselves very large investors, they also often offer transaction costs comparable to what large institutional investors are able to attain.

Convenience comes at a cost, however. Mutual funds periodically distribute capital gains (which are taxable) to all investors, whether they participated in the actual gains or not. Therefore, for funds where the investment style results in large turnover of the portfolio, investors may end up paying a significant part of their performance in capital gains taxes. Morningstar estimated that this tax-cost averaged 1.7% for US equity mutual funds over the 5 years ending in 2020.²

² <https://www.morningstar.com/articles/1067795/when-bad-taxes-happen-to-good-funds>

This tax-inefficiency has been one of the drivers pushing investors to consider Exchange Traded Funds (ETFs), which allow the fund companies to remove the capital gains through a transaction called *heartbeat trade*. In such a trade, the fund company executes an in-kind withdrawal of securities with capital gains and receives cash, which in turn is used to purchase new securities.

As an investor in ETFs, your capital gains at the time of sale will be equivalent to the gain in the price of the ETF shares you purchased. Therefore, the tax treatment resembles that of a direct equity investment.

For investors with portfolios of \$10,000 and larger, there is an even better way of implementing their exposure. By using a separately managed account (SMA), investors can own each underlying security directly, which allows them to get the cost basis for each investment. This means that the investor may, through algorithmic means, choose to realize tax losses over time while maintaining their investment in the overall portfolio. These losses can then be used to reduce overall tax liability of the investor, providing an additional source of return for the investor's total asset base.

In order to illustrate the difference in outcomes, consider the following examples of an investor seeking to gain exposure to a broad basket of securities. Investor may:

1. Purchase a mutual fund,
2. Purchase an ETF,
3. Invest in a separately managed account, or;
4. Invest in a separately managed account with tax-loss harvesting.

For the purposes of this analysis, let's assume that each of these investments has the same turnover (10% annually) and identical investment performance (10%) with half of the stocks gaining 20% in value and the other half losing 10% in value. We are also assuming a 50% (marginal) tax rate on capital gains.

At the end of the year, the position of the client would look as follows:

| Investment | Capital Gain | Accrued Capital Gains Tax Liability | Taxes Payable at Year End | After-Tax Performance |
|------------------------------|--------------|-------------------------------------|---------------------------|-----------------------|
| Mutual Fund | 10% | 5.00% | 0.50% | 9.50% |
| ETF | 10% | 5.00% | 0% | 10.00% |
| SMA | 10% | 5.00% | 0.50% | 9.50% |
| SMA with Tax-Loss Harvesting | 10% | 5.00% | -1.75% | 11.75% |

As can be seen from this hypothetical illustration, an SMA with tax-loss harvesting could potentially add significant value to the investor, outperforming a mutual fund by 225 basis points and an ETF by 175 basis points.

The actual results from a tax-loss harvesting strategy will depend on multiple factors. In general, investment strategies with lower turnover (such as tracking a market index) are expected to

benefit more from tax loss harvesting because rebalancing is driven largely by tax considerations rather than alpha signals that drive security selection.³ Market performance and the dispersion of returns across stocks matters also, since losses can only be harvested when some securities have declined in value.

Researchers from Chapman University and MIT concluded in a 2019 study that using conservative assumptions, tax-loss harvesting added as much as 1.1% to annual after-tax performance over their sample period.⁴ This compares very favorably with the outcomes of traditional active management: based on the analysis of Standard and Poors, more than 83% of actively managed large-cap funds in the United States underperformed the S&P 500 after fees over the recent 10-year period, even before accounting for the tax drag caused by portfolio turnover.⁵

In order to realize the loss, a tax-loss harvesting strategy sells positions that are trading below their cost bases and purchases similar investments to maintain the desired exposure. This means that the strategy does result in changes in portfolio composition, potentially resulting in tracking error against the target portfolio. Kitces (2014) estimates that the main benefit of tax-loss harvesting is not the immediate tax benefit but rather the long-term tax deferral, which could be only a fraction of the first-year tax savings.⁶

It is our opinion that many investors may benefit from using a separately managed account with tax-loss harvesting in lieu of the traditional mutual fund or ETF. This benefit may annually be more significant than any potential gain from active management. In fact, given the size of the benefit and the increasing availability of separately managed accounts for any investors of any size (e.g. through fractional shares) it raises the question whether only ETFs and tax-managed separate accounts should play a role in taxable portfolios in the future.

Looking Across the Asset Spectrum

While the analysis above has mostly focused on the large-cap US equities, tax-loss harvesting can be applied to any asset class. Historically, the returns of fixed income portfolios have been dominated by income, however, particularly during periods of rising rates even fixed income portfolios could be a source for tax-loss harvesting.

More importantly, asset classes with relatively high inherent volatility are likely to be the best sources for tax-loss harvesting. This means that newer asset classes such as Cryptocurrencies may provide a significant opportunity to use tax-loss harvesting techniques to improve overall portfolio performance.

³ This generalization about the negative impact of turnover on the efficacy of tax loss harvesting tends to apply to long-only portfolios. Long-short portfolios can create opportunities for effective tax management despite turnover because the capital losses generated by short positions can help realize gains in the long positions. See, e.g., Sialm, Clemens and Sosner, Nathan, Taxes, Shorting, and Active Management (April 3, 2017). Financial Analysts Journal, Vol. 74, No. 1, 2018, Available at SSRN: <https://ssrn.com/abstract=2907195>

⁴ Chaudhuri, Shomesh and Burnham, Terence C. and Lo, Andrew W., An Empirical Evaluation of Tax-Loss Harvesting Alpha (March 5, 2019). Available at SSRN: <https://ssrn.com/abstract=3351382>

⁵ <https://www.spglobal.com/spdji/en/research-insights/spiva/>; retrieved on 8/10/2022

⁶ <https://www.kitces.com/blog/evaluating-the-tax-deferral-and-tax-bracket-arbitrage-benefits-of-tax-loss-harvesting/>

Absence of the so-called wash-sale rule in Crypto markets give tax loss harvesting an additional boost in this asset class. Concretely, this enables one to harvest a tax loss by selling a coin and a loss and immediately buying back the same coin. As a result, a 50% drawdown in a given coin can be turned into a 25% tax asset for an investor subject to a 50% tax rate. While Cryptocurrencies have exhibited correlation with the equity markets in the most recent 6-12 months, it is likely that these two asset classes have enough diversification benefits to one another that tax-loss harvesting could be used across them to generate significant value in both rising and falling equity markets.

Mass Customization: Custom Direct Indexing and Features Beyond Performance

Passive management - also known as indexing - has become increasingly prominent in the industry. Over 50% of professionally managed US large cap equity funds are now managed passively and increasingly the same trend is pervading other sub-sectors and asset classes. Over the past 10 years, the share of passively managed mutual funds in the US has grown from 20% of all mutual fund assets to 43%.⁷

We believe that there are benefits for investors in considering custom direct indexing. Custom direct indexing is a method whereby an index is constructed for each investor using a bespoke combination of objectives, rules and constraints; and the index is implemented through single-security investments in a separate account. This accrues multiple benefits for the investor:

- Custom direct indexing allows for customization around specific themes and can also help work around existing investments the investor may hold (e.g. large single-stock positions)
- Direct ownership of each individual stock permits flexibility in managing tax consequences
- Active approach to minimizing capital gains and transaction costs associated with the portfolio. (A pooled investment, such as a mutual fund or an ETF, will expose investors to the liquidity needs of others.)

Ability to customize will also provide the opportunity for investors to include features beyond performance. Many investors, particularly the emerging Millennial generation, have expressed the desire to structure their portfolios around investment themes that are consistent with their values.⁸ Customized direct indexing allows investors to specifically target causes that are important to them and if done correctly, without a significant impact on performance.

Thematic Investing: Core-Satellite and the Diminishing Returns of Traditional Factors

The traditional core-satellite allocation rests on three tenets, which we argue should be re-evaluated in the light of the technological disruption taking place in nearly every sector.

⁷ Source: ICI Fact Book 2022

⁸ <https://fortune.com/2021/11/18/millennials-genz-investing-markets-wealth-transfer/>

- US large cap equity market is efficient and therefore should be passively managed as active managers are unlikely to be able to demonstrate persistent excess returns above the market performance
- There are persistent premiums - such as a value premium and small cap premium - that can be harvested, supporting allocations in excess of market weights to the sub-sectors within the equity markets
- Active managers can add value in less liquid sub-sectors, such as small cap, international and emerging markets

We believe that these statements are directionally still correct but that the basis for each of them is becoming less supportable. There has been a significant rise in the interest around thematic investing - for example, there are indices being created for specific themes, which may cross the traditional lines between large cap and small cap and growth and value.⁹

Traditional premiums have also eroded. In a recent paper by Fama and French¹⁰, the authors concluded that the value premium has on average fallen significantly. Their findings are consistent with the fears that the traditional premiums are at risk of being arbitrated away given the popularity of the factor investment strategies.

As for the value of active management, the most recent SPIVA report from Standard and Poors' estimated that over the past 10 years 83%, 79% and 83% of fund managers underperformed their indices in US Large Cap, US Small Cap and European Large Cap, respectively. Unfortunately the evidence continues to weigh against the active managers within equities, regardless of geography or style.

Thematic investing provides the following benefits over traditional methods:

- **Cross-market themes:** It can capture themes which impact companies that would traditionally be seen in separate universes. For example, technology firms upending parts of the retail business could be a theme that involved investing in innovative retail companies in addition to the technology firms themselves. In our view, the use of modern Artificial Intelligence and Machine Learning techniques may allow discovery of emergent themes
- **Alignment of interests:** Thematic investing allows for investors to choose areas of interest and align their portfolios accordingly. For example, investors interested in development of green energy infrastructure can directly allocate a part of their portfolio into investments benefitting from growth in that area
- **Diversified source of equity return:** With appropriate diversification, thematic investments should provide returns similar to passive investments. While thematic portfolios may outperform the market from time to time, they are not expected to do so

⁹ See for example MSCI thematic indices. <https://www.msci.com/our-solutions/indexes/thematic-investing>

¹⁰ Fama, Eugene F. and French, Kenneth R., The Value Premium (January 1, 2020). Fama-Miller Working Paper No. 20-01, Available at SSRN: <https://ssrn.com/abstract=3525096> or <http://dx.doi.org/10.2139/ssrn.3525096>

consistently, so the benefit derived by investors arises from the alignment of interests in addition to passive returns

Investors are embracing thematic investing - based on a recent study, investors surveyed believed that they would have 35% of their investments be managed using thematic investing rather than traditional allocation methods over the next 18 month period.¹¹ What is unknown at this time is whether thematic investments could result in better performance than traditional methods. Our view is that unless the investor actively pursues emerging themes, portfolios using thematic investments are likely to yield results similar to passive investing, but with a better alignment with the investor's personal interests.

Our Vision for the Future

In this white paper, we have reviewed the existing practices for portfolio construction and management of typical investor portfolios. We believe that a compelling case can be made for a new model of expanding the use of custom direct indexing in lieu of traditional investments, both active and passive.

In our view, the future vision for an investor would include the following changes:

- Migrate majority of equity investments from pooled vehicles to custom direct indexing portfolios, using both broad market indices and themes important to the investor
- Use specialty asset managers to pursue specific niche categories where security selection may have a significant impact
- Aim to minimize tax burden through algorithmic tax-loss harvesting across all of the investor's portfolios
- Incorporate new asset classes in the same structure using separate accounts, where appropriate (such as Cryptocurrencies)

We believe that pursuing these steps will enhance the investor's portfolio in multiple ways:

- Overall cost of the portfolio should decrease given the attractive pricing of custom direct indexing in contrast with traditional active management
- For those investors, where values-based investing is important, the portfolio will more closely align with their views
- Improved tax-efficiency is expected to improve after-tax returns, especially if pursued across various asset classes

There may be future opportunities that arise from these changes, such as the ability for the investors to vote their own proxies (a direct way of influencing the companies on the values dimension). We also expect other asset classes, such as municipal bonds to become available in custom indexing format in the future, in particular if they can be fractionalized in the same way as common equity shares have been.

¹¹ <https://insight.factset.com/thematic-investing-catches-fire>

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