

Tax-Aware Portfolio Construction: An Introduction

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Introduction

In the early 1970s, bonds were boring - they were something you bought, filed away in a drawer, and clipped coupons from until maturity. The prevailing wisdom was that bonds were a buy-and-hold asset and yield to maturity was destiny. Bill Gross and a small team at Pacific Mutual in Newport Beach had a different view. They began trading bonds actively, using newly emerging derivatives, and systematically exploiting the structural inefficiencies in the market - in 1979, Gross' seminal paper, "Consistent Alpha Generation through Structure" was published in the Financial Analysts Journal and the concept of "structural alpha" was introduced. At the time, active management of bonds was highly unusual; today, it's the norm. Over the coming decades, PIMCO grew into one of the largest fixed income managers in the world, and an asset class that had once been treated as static turned out to have been hiding an enormous amount of value - once practitioners were willing to rethink the investment process.

"...I would argue that those who fail to recognize the structural elements of the investment equation will leave far more chips on the table for other, more astute investors to scoop up than they could ever imagine."

- William H. Gross, "Consistent Alpha Generation through Structure" (Financial Analysts Journal, 1979)

Today, portfolio construction for taxable wealth sits where fixed income sat in the early 1970s. The tools, research, and infrastructure have been quietly built out over the past two decades - largely within the hedge fund and asset management industries - and most of these tools are now, for the first time, usable in the service of taxable investors. What has not yet caught up is the portfolio construction framework and process that private wealth still relies on. Most taxable portfolios are still being built the way bond portfolios were built in the early 70s - statically and through a single lens.

This paper introduces an alternative to the status quo. We posit that taxable wealth deserves its own portfolio construction discipline - one that is dynamic across time, attentive to both sides of the balance sheet, and tax-aware at the core. We introduce a three-dimensional framework for building tax-aware portfolios, with the goal of not prescribing a specific portfolio, but to change the conversation about what a taxable wealth portfolio is.

Taxable Wealth: The Status Quo

To understand where the opportunity lies, it's worth examining how private wealth portfolios are often built today - the process varies across firms, but the mechanics are remarkably similar. A traditional private wealth portfolio construction process might begin with either creating a custom asset allocation or using an off-the-shelf model - *how much in stocks, how much in bonds, how much in alternatives*. Percentages are assigned based on a variety of methods: perhaps a risk questionnaire, a rule of thumb (i.e. "1 minus your age"), divining the macroeconomic tea leaves, or simply the firm's house view. Sometimes the allocation is run through a mean-variance optimizer, and the output is dominated by the expected return and covariance assumptions going in - with the overall process optimizing for *pre-tax*

returns. Tactical tilts may be overlaid on top, with some alternatives and private investments introduced, thus creating the impression that this is a truly bespoke portfolio.

An advisor might then have a discussion around a client's goals, before inputting this data - goals and portfolio - through a Monte Carlo simulation which projects the portfolio's outcomes against future cash flow needs. The outcome is a percentage, the probability a client will achieve his or her goals given the proposed portfolio. This precision feels reassuring, but depends heavily on inputs - expected returns, correlations, inflation, spending, and tax rates, any of which, if wrong, can swing the probability significantly...garbage in, garbage out.

In all fairness, this works...somewhat. Asset allocation matters enormously, diversification creates more optimal portfolios, and risk questionnaires do a reasonable job of matching clients with a risk level in their portfolios they can live with. If this is all you do, you'll probably be fine...but "probably fine" isn't great and there may be areas of potential improvement including:

- **Static vs Dynamic Processes:** The portfolio is constructed once and reviewed and rebalanced quarterly, maybe semi-annually. A taxable investor's life is not static - business sales, IPOs, concentrated vesting events, liquidity needs arise - and static portfolios are ill-equipped to handle major inflection points and significant changes in an investor's financial life
- **Siloed Investment Decisions:** By looking only at the asset side of the balance sheet and siloing investment management decisions, liabilities are treated as an afterthought. By considering both sides of the balance sheet - weighing assets and liabilities together, synergies can be unlocked and real value may be created
- **Pre-tax vs After-tax Returns:** Taxable investors "eat" after-tax returns, and combined federal and state tax drag on a typical active equity portfolio can easily run hundreds of basis points a year. Thinking in terms of both pre- and post-tax returns may improve after-tax outcomes depending on implementation and individual circumstances.

The old status quo was designed in a world where the levers to address these issues didn't exist or existed only for institutions and the wealthiest of individual investors. That world is gone - today, many of these tools are accessible, and the taxable wealth portfolio construction framework should catch up.

Structure Matters: A Three-Dimensional Framework

If the old status quo is static, myopically focused only on assets, and optimized for pre-tax returns, what we propose is a dynamic process which considers assets and liabilities, and focuses on both pre- and after-tax returns. As such, thoughtful portfolio construction for taxable wealth should extend along three dimensions simultaneously: time, balance sheet, and solution set. Taken together, this process reframes portfolio construction from a static, one-time exercise, into something more dynamic, closer to how a corporate treasurer, institutional investor, or hedge fund manager might approach the job - constant attention to the interaction between assets, liabilities, time horizon, and taxes.

Dimension 1: Multi-Year Planning

The first and least appreciated dimension is time. Clients' lives, like markets, are dynamic. A portfolio that is right for a 48-year-old founder with an illiquid concentrated position is wrong for the same person three years later after the company has IPO'd. A portfolio that is right this year for a family

expecting a large business sale next year is almost certainly wrong - it should already be preparing for the event. Traditional portfolio construction handles this with an annual review, which is certainly not enough. What's needed is a rolling multi-year planning process - a working map of when liquidity events, vesting, and life transitions are expected to occur, and a portfolio consciously positioned ahead of them.

The value of multi-year planning is not that it lets you predict the future. It's that tax decisions have asymmetric payoffs across time. A tax loss harvest realized prior to a significant liquidity event is more beneficial than the same tax loss harvest in other years. A charitable gift of appreciated stock made in a year of significant RSU vesting, can potentially offset income that would otherwise be taxed at the top rate. These decisions look small in isolation, but they compound into significant dollar figures over a lifetime.

Consider an investor expecting a large business sale in eighteen months. She has a known, large capital gain coming. She may have the opportunity to bank harvested losses over the next year and a half to offset those future gains. She may want to accelerate charitable gifts into the sale year to maximize deduction value. Each of these levers can potentially create real value, yet they may not be fully captured in traditional portfolio construction frameworks.

Dimension 2: Both Sides of the Balance Sheet

Traditional portfolio construction also focuses only at the asset side. Liabilities are handled reactively - a client needs money for a boat, so someone calls their bank and turns on a portfolio line of credit. Each decision is made in isolation, on its own economic terms, and usually at whatever rate the market happens to be offering that week. A modern taxable portfolio should be constructed with both sides of the balance sheet in view: improving the asset side through dynamic planning, and improving the liability side through thoughtful structuring of borrowing needs.

The Asset Side: Overlays and Harvesting

A plain long-only equity allocation generates returns from a single source: market exposure. But that same dollar of capital can, with the right structure, do two things at once. A long/short overlay layered on top of a core equity allocation uses leverage to go long some stocks and short others; the net result is a portfolio that maintains full market exposure (beta of roughly one) but adds a source of potential alpha from security selection within the overlay. The investor isn't giving up market participation - they still own the index - but they've added a second return stream on top. This "portable alpha" approach is how many institutional portfolios are managed, and it's available to taxable investors today in several forms, including long-short overlay structures and tax-aware extension strategies.

Just as important as the investment alpha potential, for taxable investors, is what a long-short overlay does for loss harvesting. In a conventional long-only portfolio, tax-loss harvesting is only productive when the market goes down. In a portfolio that also holds short positions, losses are realized in both up and down markets: when the market rallies, the shorts realize losses; when the market falls, the longs realize them. This may increase the opportunity to realize losses under certain market conditions - losses that may be used to offset future gains subject to tax rules and individual circumstances, including the gains from eventual rebalancing, concentrated position diversification, or business sales.

The Liability Side: Structure Over Convenience

Most wealthy individuals carry some combination of mortgage debt, auto loans, credit card balances, margin debt, securities-based lines of credit, and private banking facilities. The effective costs of these types of borrowing often run in the 6% to 7% range in the current environment. Institutions don't borrow this way. A sophisticated institutional borrower, given equivalent collateral, can typically access financing at or near short-term benchmark rates. The gap between individual and institutional borrowing costs is one of the most persistent and least discussed inefficiencies in private wealth.

Taxable investors now have access to tools which can help close the gap. Box spreads - option structures that synthetically create a fixed-term loan at a rate close to the implied financing rate in listed options markets - are the most talked-about but also quite complex and easily misused. Selling box spreads requires appropriate collateral, trading experience, and a thorough understanding of options. Done right, it can meaningfully reduce the cost of borrowing. Done wrong...well, just go to Reddit and read about retail traders who tried selling box spreads with American options. This is an area where working with a qualified professional helps tremendously. More broadly, liabilities deserve the same attention that assets get - reducing one's borrowing costs by 2-3% can add significant value to an investor's lifetime cumulative wealth and implementing borrowing should not be made "just in time" when cash is needed.

Dimension 3: The Expanded Toolkit

The third dimension is the expansion of the toolkit of investment solutions available today. Most taxable investors today are working with a toolkit that is one or two generations out of date - stocks, bonds, ETFs, maybe some mutual funds. What follows is a starter kit - not an exhaustive list, and not a suggestion that every portfolio should use all of these instruments. The point is that the universe of available instruments is much larger than the set most investors are shown, and knowing what exists is a prerequisite to choosing well.

- **Options (listed and FLEX):** the most basic tools in the modern toolkit. For concentrated stockholders, a collar - long put, short call - can hedge the downside of a position while deferring the eventual gain recognition. FLEX options extend the framework by allowing customization of strikes, expirations, and importantly, exercise styles (American vs European). These can be useful for hedging concentrated single stock positions. SPX listed options can be used to construct box spread financing as well.
- **Exchange funds:** an investor contributes appreciated stock and receives a partnership interest in a diversified portfolio - without triggering a taxable sale. After a seven-year holding period, the investor can redeem for a diversified basket. Taxes are deferred, not eliminated, in exchange for a seven-year lockup and illiquidity. For fast, tax-efficient diversification, exchange funds are often the easiest to implement solution available.
- **Section 351 exchanges:** an investor contributes appreciated securities to a newly formed corporation - often a newly launched ETF - and receives shares of the ETF in exchange, without triggering a taxable event, provided requirements around control and diversification are met. In recent years, this has become a popular way to convert appreciated individual securities portfolios into a diversified ETF tax-efficiently.

- **Variable prepaid forward contracts (VPFs):** essentially a hedge, plus a loan, on a concentrated stock position or basket of holdings. VPFs are structured as contracts in which the investor agrees to deliver a variable number of shares of an appreciated stock in the future, in exchange for cash today. It lets an investor monetize a concentrated position, hedge the downside, and defer the taxable sale - all in one transaction.
- **Notional principal contracts:** notional principal contracts or equity-linked swaps allow investors to gain economic exposure to equities with different tax outcomes versus implementing the same exposure using cash equities. These differences in tax outcomes may lead to unique tax profiles for hedge funds structured as trader funds. When built with economic substance in mind, these hedge funds have the potential to deliver absolute returns, diversification benefits, and potential tax-efficiencies - resulting in a more optimal asset allocation and robust portfolio structure.

Putting It Together

The three dimensions mentioned above are not independent. They interact, and the interactions as well as appropriate sequencing are where value creation resides. For example, for an investor with a large concentrated single stock position, entering into a variable prepaid forward contract (or synthetically replicating this with a FLEX collar and short box spread position) can help hedge and monetize this single stock position. Perhaps a small portion of the single stock can be diversified immediately using an exchange fund, while the monetized proceeds are invested in a long short tax loss harvesting separately managed account (SMA). Eventually the single stock gets fully sold off, and the investor is left with a diversified basket of long and short U.S. equity positions – from here, the SMA might be de-levered and the shorts closed; this new long only U.S. equity SMA could potentially be used to seed a Section 351 transaction with the intention of incorporating additional types of exposures. It’s the thoughtful use of these tools in combination, and in the appropriate sequence, where investors can create meaningful value in economically substantial ways. In theory, these strategies may interact closely with one another - each is smaller in isolation than it is as part of the whole.

Certain institutional investors have historically used similar approaches, although implementation and outcomes may differ for individual investors. They design portfolios holistically, with time, balance sheet, and instrument choice all in view at once. Until recently, replicating that kind of design for an individual taxable investor was impractical - the administrative overhead and operational complexity was too high, the tools were out of reach, and the research wasn't widely available. That’s all changing. The investors and their advisors who adapt may deliver materially different after-tax outcomes from those who do not.

Bill Gross and PIMCO did not invent the bond market - they inherited it. Their contribution was to insist that the bond market deserved a different portfolio construction discipline than the one it had. They built one, and the industry eventually caught up. Taxable wealth is in the same position today - the tools exist, the research exists, the infrastructure exists. What is needed is a framework that uses all three - organized around time, balance sheet, and toolkit. That is what tax-aware portfolio construction is. It is not a product; it is a way of thinking about portfolio construction holistically. And for taxable investors, it is one potential area of improvement for certain investors, depending on individual circumstances that we know of.

About Us

Shang Chou is Co-Founder and Managing Partner of Dishmi Capital, an independent multi-family office focused on tax alpha and alternative investments. Shang has nearly two decades of experience building companies and products in the asset & wealth management industry, as well as experience advising institutional and ultra-high net worth investors at firms such as Goldman Sachs, J.P. Morgan, and PIMCO.

Shang has played a key role in scaling multiple startup asset management firms from “zero to one”. Prior, he served as Chief Revenue Officer of a London-based active equity manager backed by Index Ventures and Accel. Before that, Shang was one of the first employees at Simplify Asset Management where he played an instrumental role in developing, launching, and marketing over twenty derivatives-based, fixed income, and alternative ETFs, while helping scale Simplify to over \$10B in AUM. He has also served in a strategic capacity to Cache, an asset manager focused on single stock concentration.

Earlier on in his career, Shang was a Vice President at Goldman Sachs where he specialized in portfolio construction, asset allocation, and hedging solutions. He has also held investment management and investment banking roles at J.P. Morgan, PIMCO, and Credit Suisse.

Shang holds a bachelor of science degree from MIT, an MBA from the UCLA Anderson School of Management, and has earned the Certificate in Quantitative Finance (CQF) designation. He serves as an Educational Counselor for MIT Admissions and is active within the MIT Club. He sits on the Advisory Board at the UNLV Lee Business School and is an adjunct professor in the MS program in Quantitative Finance.

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