# The Importance of a "Total" Portfolio View: Modeling a Client's Small Business Ownership

**EXECUTIVE SUMMARY**

Incorporating privately held assets into the building and design of a client's portfolio is a critical risk management issue for advisors. Technology and data increasingly rule or certainly heavily influence our lives. But the limits of that data and the impact of those limits need to be a) at the very least, recognized and b) often times, explicitly accounted for.

Nebo Wealth is a tool that does just that for client portfolios by taking into account illiquid but often critical assets for some clients - their privately held business or commercial real estate holdings. Nebo Wealth creates a total portfolio design for clients avoiding these potential pitfalls and addressing a critical risk management issue.

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## The Problem

Financial technology products focus on the information which is most readily available. Seems obvious. In building portfolios, the focus tends to be on publicly traded securities. We can get real-time or daily feeds on asset prices which are easily loaded into fintech products. Illiquid assets such as private equity or venture capital tend to be a bit more problematic. Assets that are not held at a custodian with a direct data feed end up with stale pricing even in the best of circumstances.

We all know the difficulty of valuing these private assets, but the private equity and venture capital firms and their auditors give it a shot. The furthest down the line are things like commercial real estate or privately held businesses.

Very rarely do these types of assets make their way into the design of a client portfolio. But they are valuable financial assets and for some clients they can be a critical component of their net worth. We believe a client's asset allocation needs to reflect the existence of these important assets

> By taking into account illiquid assets into a client's total portfolio design, we can account for these unique risks and adjust the publicly-trade portion of the portfolio to reflect the economic characteristics of the privately-held business.

## The Solution

For Nebo Wealth, our focus on redefining risk, not as volatility, but as 'not having the financial resources you want, when you want them,' provides the gateway to rethinking the way current portfolios are designed. Portfolios can be efficiently customized to minimize this unique risk for each client.

Clients with substantial privately held assets are no exception. By taking into account these illiquid assets into a client's total portfolio design, we can account for these unique risks and adjust the publicly-trade portion of the portfolio to reflect the economic characteristics of the privately-held business.

This becomes a critical risk management consideration in making sure clients are not overexposed to equity risk or over-levered to economic risks from the combination of their illiquid assets and public equity holdings.

## How Nebo Wealth Does It

We use a proprietary, horizon-based shortfall optimization process that minimizes both the probability and magnitude of falling short of a client's specific goals and objectives over their time horizon. It is important to note that the shortfall optimization is not relative to running out of money – it is shortfall relative to the client's target wealth. The input for our optimization is very straightforward:

1. Short-Term Expected Return for each Asset
2. Volatility of that Asset
3. Correlation of that Asset to Stocks
4. Correlation of that Asset to Bonds
5. Long-Term Expected Return for an Asset

The program requires the same inputs for a privately held business. This is certainly more complicated than estimating capital market assumptions for a portfolio of large-cap US equities, but with the help of an experienced advisor and the appropriate software program, it is certainly doable.

Below we will explore two different types of privately-held businesses and how our portfolio construction and design process incorporates the financial characteristics of those businesses when building a portfolio for a client's publicly-traded assets.

## Case Study

Here we have two business owners, Steve Smith who owns an auto-parts manufacturer and Susan Jones who owns a chain of dry-cleaning businesses. Automobile sales are very cyclical and rise and fall with the booms and busts of the economy, so Steve's auto-parts business very much shares that economic sensitivity. Dry cleaners are less economically sensitive but are not immune from the economy and subject to other more local risks as well, including low barriers to entry for competitors.

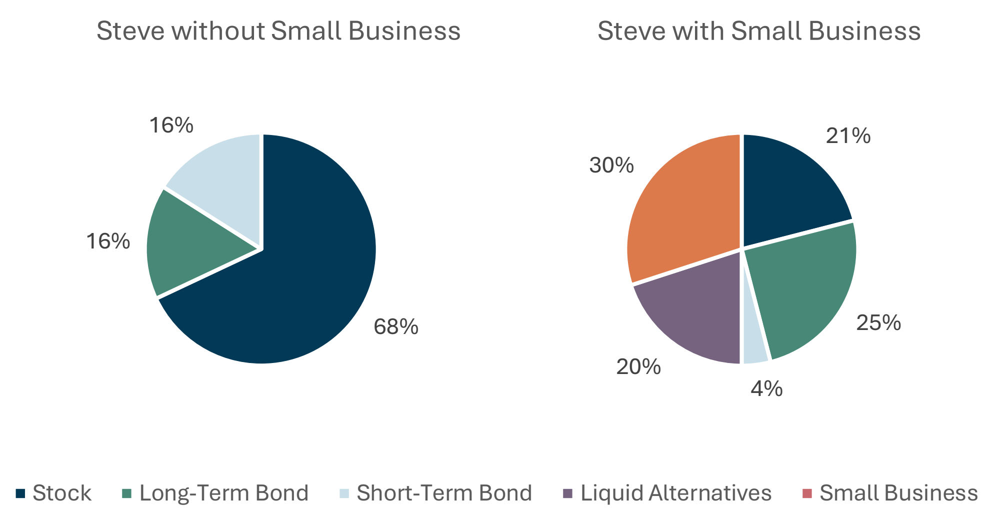
Both owners are 53 years old, expect to retire at 65 and have a longevity of 95. Both Steve and Susan require 4% from their portfolio (after inflation, investment-related taxes and fees) to make their respective financial plans work. For Steve, he is focused on retiring to the sunny climes of Florida. For Susan, her retirement is focused on travel and seeing the world. A key aspect of their respective plans is the economic sensitivity of their privately held businesses and how that may influence the rest of their portfolio. Our Nebo advisor has made these determinations about the financial characteristics of each business.[1]

1. For a frame of reference, looking at the last 10 years ending April of 2024 using weekly returns, the annualized volatility for the MSCI Micro Cap Index is 24.5%. However, the volatility of the median stock in the index is 69.8% (diversification has its benefits…) with a correlation to stocks of only 0.3. As you increase the index market cap, the volatility of the median stock starts to fall and the correlation to the broader market begins to rise. For the Large Cap Index, the median stock's volatility is 28.9% (versus the volatility of the index of 12.6%) and its correlation to the S&P 500 is 0.58.

| Auto-Parts Manufacturer | | Dry Cleaning Chain | |
|---|---|---|---|
| Short-Term Expected Return | 6% real | Short-Term Expected Return | 6% real |
| Volatility | 58% | Volatility | 41% |
| Correlation to Equities | 0.4 | Correlation to Equities | 0.4 |
| Correlation to Bonds | 0.2 | Correlation to Bonds | 0.2 |
| Beta of the Business to Equities | 1.33 | Beta of the Business to Equities | 0.94 |
| Long-Term Expected Return | 6% real | Long-Term Expected Return | 6% real |

Neither of these assets are tradeable so the advisor will fix their weight in the portfolio based on an assessed value of the business relative to their total net worth.[2] We then build the optimal portfolio for both Steve and Susan taking int account each client's unique circumstances and their large, privately held asset and their respective specific financial characteristics.

**Steve's Portfolios (Auto Parts Business)**




Without taking into account Steve's privately held business, his portfolio has a significant weight in equities in order to achieve his goals. Taking into account the business, the portfolio changes dramatically from what was essentially a 70/30 portfolio.

| Steve's Portfolio Before | | Steve's Portfolio After | |
|---|---|---|---|
| Volatility | 14.4% | Volatility | 10.9% |
| Equity Weight | 68% | Equity Weight | 21% |
| Equity Beta | 0.89 | Equity Beta | 0.58 |

2. The approach we take here represents the first step in a more comprehensive approach to optimizing for illiquid assets. This first step involves accounting for the private asset by fixing the portfolio weight based on the value of the business relative to the value of the liquid assets. The next step, currently in development, involves modeling the growth in the value of the business and accounting for the expected sale of the business using a generalized methodology that will not only account for private business ownership but also account for the commit/call and capital pacing characteristics of private equity, private credit, private real estate, venture capital, etc.

For an Auto-Parts company, there is significant exposure to the economic cycle modeled as greater volatility and correlation to equities. The fortunes of this client's company would be significantly impacted in an economic recession. For example, in 2008, new car sales fell by 40%.

For a manufacturing business with significant fixed costs, this is what the economists call "a big deal" because profits will fall dramatically from the loss of revenue while fixed costs stay relatively constant. Similarly, equities are exposed to the economic cycle and go down in recessions, sometimes violently so.

The business and equities are certainly close cousins in terms of their economic sensitivities. Not taking into account this client's privately held business and its economic exposure and resulting correlation to equities has the potential of being disastrous for this client. If there is leverage in the business and the client's other financial assets are under strain, loan covenants could be breached resulting in commercial or personal bankruptcy or selling financial assets at depressed prices to cover the businesses obligations.

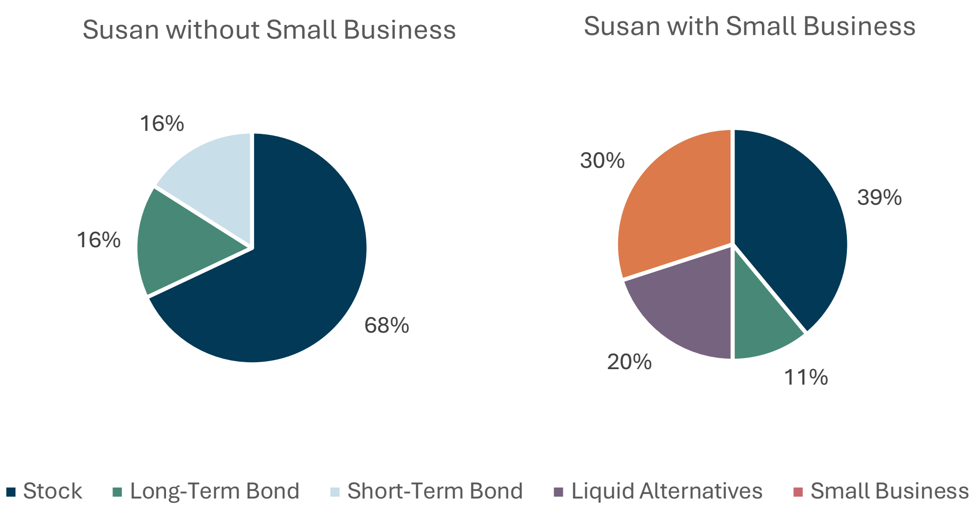
Just when the cash flow from Steve's company is drying up in the recession, his equity portfolio is also getting hit. The practitioners of the Dismal Science would refer to this as the classic "double whammy" because his business likely suffered a loss (and may require a cash infusion) and his equity portfolio could be down more than 20%.

## Susan's Dry-Cleaning Business

The dry-cleaning chain is a bit different. Its fortunes are less sensitive to the economic cycle than an auto parts manufacturer, but it still vulnerable to a number of risks related to the economy, e.g., competition, the availability of financing, thin profit margins, high energy costs, inconsistent cash flow from seasonal fluctuation of sales, etc.

In an economic event like 2008, revenues would have assuredly fell but likely less than the auto-parts manufacturer. Dry cleaning remains an essential service versus the discretion of purchasing a new car. We take this into account and while the dry cleaner is not as volatile an asset as the auto parts manufacturer, it is significantly more volatile than a diversified portfolio of micro-cap companies. And you can see the impact this has on its portfolio allocation.

**Susan's Portfolios (Dry-Cleaning Business)**




Like Steve's portfolio, Susan's portfolio has less in equities and a lower volatility and beta than the original 70/30 portfolio after taking into account the significant equity exposure from her business. But because the business is less economically sensitive, the resulting portfolio does have a higher weight in equities than Steve's portfolio.

| Susan's Portfolio Before | | Susan's Portfolio After | |
|---|---|---|---|
| Volatility | 14.4% | Volatility | 10.6% |
| Equity Weight | 68% | Equity Weight | 39% |
| Equity Beta | 0.89 | Equity Beta | 0.55 |

## Conclusion

Valuing and modelling these privately held businesses is not easy and there should be no illusion of precision when doing so. There is software out there that does a pretty good job of assisting the advisor in characterizing these assets. The uncertainty around the valuation of a business, however, does not mean that these incredibly important assets should be ignored. Nebo Wealth provides advisors with a framework and a tool for thinking about these assets in the context of each client's unique goals and objectives and the total portfolio the advisor needs to design to get them there.

Nebo is designed to test and build your intuition by helping you understand what you need to believe to own the portfolio you are building for a client – what you need to believe about both capital markets and the client. This is especially true for assets like small businesses which are incredibly heterogenous – no two are alike so the financial characteristics of each must be separately analyzed.

Accounting for these critical assets is a distinct advantage for the Nebo Wealth advisor relative to the competition out there. Showing the clients that the advisor has a solution for all of the client's assets will help provide a level of confidence for both the advisor and the client and help cement an enduring relationship.

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