LANCASTER POLLARD

The Nonprofit Minute

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About the Firm

Lancaster Pollard Investment Advisory Group, an SEC-registered investment advisor, helps nonprofit organizations create the financial means to last the life of their missions by managing *total* financial risk rather than just investment-associated risk. Lancaster Pollard Investment Advisory Group shares common ownership with Lancaster Pollard, a leading provider of investment banking and mortgage banking services for the senior living, health care, affordable housing and private education sectors.

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Efficient Frontiers

The primary asset allocation goal is to optimize the investment portfolio to maximize return, subject to an acceptable amount of risk. Nonprofit organizations with outstanding tax-exempt debt have a unique opportunity to increase expected return without increasing risk.

Understanding Efficient Frontiers

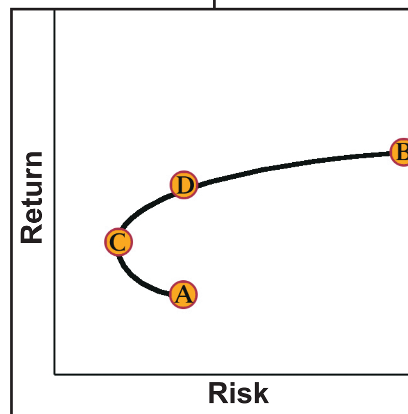
Modern Portfolio Theory really started in 1952 when Harry Markowitz published a paper on the efficient frontier. The efficient frontier is the set of the portfolios that satisfy either:

- The maximum level of return given a level of risk
- The minimum level of risk given a level of return.

The graph below illustrates different allocations of stocks and bonds. Point A represents a portfolio that is 100% bonds, while Point B represents a portfolio that is 100% stocks.

The line between A and B represents the expected return of all possible combinations of stocks and bonds. Notice that the line is not straight, illustrating the power of diversification. Point D, for example, shows a point that has the same risk as Point A, but a higher return.

This is the goal of using an efficient frontier, to find "Point D's" and generate higher returns for the same amount of risk. All choices between points C and B are efficient portfolios.



What is Different about Nonprofits?

Nonprofits such as hospitals, educational institutions and senior living organizations have the opportunity to issue tax-exempt debt. Organizations that integrate their thinking about investments and debt have a different efficient frontier than those that do not, such as a community foundation or a pension fund.

Stocks and bonds are all capital market instruments. While most organizations own stocks and bonds, many also issue debt.

Investment committees and investment managers typically think of the investing and issuance questions in isolation. But what happens when we think of them in tandem: securities purchased being positive positions while securities issued are negative positions?

Imagine an organization that has a $20 million portfolio and needs to build a $10 million addition. Ignoring donations, there are two choices to fund the building: pay $10 million out of the investment portfolio or borrow $10 million and keep the investment portfolio intact. Let's assume that there is no other debt or investments.

Typically, the investment committee would look at the latter choice as a $20 million portfolio with some percentage in stocks and some percentage in bonds, where the asset allocation, the

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percentages, add up to 100%. What happens when you factor in the debt as a negative holding, with stock and bond holdings greater than or equal to zero, and the sum of all the asset weights equal to 100%?

The chart below shows actual results for the example above based on the S&P 500, the Lehman Aggregate Index, and variable rate tax-exempt debt, modeled using the BMA index. (The Bond Market Association Municipal Swap Index , produced by Municipal Market Data, is a seven-day, high-grade market index comprising tax-exempt, variable-rate demand notes). It shows some important results:

Minimum Risk and Return

The absolute minimum level of risk comes from a traditional portfolio. Leverage will increase some level of risk.

More Money for Mission

Most organizations do not invest at a minimum risk profile, but rather at 50% to 70% in equities. Looking at the chart again, at that type of asset allocation, there is a portfolio on the "With Debt" line that has the same risk as the "traditional" line but with a significantly higher return, a more efficient portfolio. Modern Portfolio Theory illustrates why it is better to use debt financing than cash to fund capital projects: the organization will produce a higher net return and have more money for its mission at the same level of risk.

Optimal Asset Allocation Depends on the Amount of Debt

The last and, for many organizations, most important point is that organizations with outstanding debt already have the "With Debt" portfolio, but many are establishing the risk parameters based on the "Traditional" model.

The chart shows the risk of a 60/40 (60% equities / 40% fixed income) portfolio. The drop line intersects the "Traditional" frontier at the 60/40, but it intersects the "With Debt" frontier much closer to a 75/75/-50 (or 50/50 in traditional terms) asset allocation.

Limitations and Assumptions

The example is based on one organization with a specific amount of floating rate debt. The inclusion of fixed rate tax-exempt debt, swaps, or even a different percentage of floating rate debt will change the efficient frontier from the one illustrated.

Tax-exempt floating rates were modeled based on the history of the BMA index. Because the BMA index was established in 1991, its relatively short history is a limiting factor in the modeling of the efficient frontier.

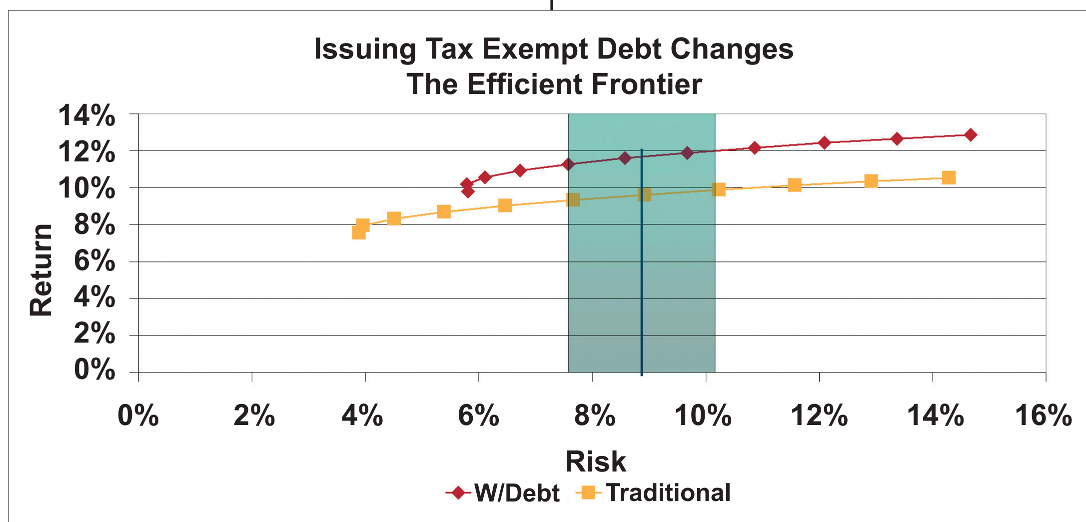
Conclusion

Nonprofit organizations that issue tax-exempt debt should take a holistic view of their capital market security decisions. Doing so can help an organization optimize its portfolio and create a better return for its mission. This holistic view is part of more efficiently managing the balance sheet to maintain and sustain the mission for perpetuity.

For More Information

Lancaster Pollard can help organizations integrate their thinking on capital market issues, their thinking on how debt covenants impact the investment decision, and how to manage interest rate risk across the entire balance sheet.

To apply the efficient frontier theory to your organization, please contact William M. Courson at wcourson@lancasterpollard.com



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