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Research Spotlight

Setting Callan's Capital Market Projections

A Manifesto

Why Do We Make Capital Market Projections?

Callan believes the cornerstone of a prudent process for a fiduciary is a careful and thorough examination of their long-term strategic investment plan. Long-term capital market projections are key elements to this effort. Capital market projections establish reasonable rate-of-return and risk expectations, both for individual investment strategies and for total portfolios. The projections enable the fiduciary to explicitly acknowledge the impact of change and uncertainty in the capital markets on their investment portfolio. The end result of the strategic planning process is an investment policy—with allocations to asset classes, strategies, and specific mandates—designed to meet the return and risk objectives articulated in the investor's goals.

Callan develops capital market projections at the start of each year, detailing our expectations for return, volatility, and correlation for all the broad asset classes. These projections represent our best thinking regarding a longer-term outlook and are critical for strategic planning as our clients set investment expectations over five-year, ten-year, and longer time horizons. The projections reflect research into both long-term historical trends and recent market developments, and incorporate the informed judgment of Callan's consultants, investors, investment managers, and market experts.

Jay is the author of the "Callan Periodic Table of Investment Returns," which he created in 1999.

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Jay V. Kloepfer, Executive Vice President and Director of Capital Markets Research

These projections are a key component of asset allocation studies, incorporating the economic and financial environment in which pension plans, endowments and foundations, asset managers, and investment consultants must operate. Our goal is to develop projections that are readily defensible both for individual asset classes and for total portfolios.

Long-term equilibrium relationships between the capital markets and lasting trends in global economic growth are key drivers to our capital market projections. Callan's forecasts are certainly informed by current market conditions, but they are not built directly from them. Our focus on long-term equilibrium relationships results in a set of assumptions that change slowly (if at all) from year to year. The first question we ask as we develop the projections is, "What do we know now that we didn't know a year ago that would cause long-term investors to change their expectations and perhaps alter their strategy?" The focus of our projections is necessarily different from that used by, for instance, asset managers evaluating the 6- to 18-month opportunity for a particular strategy, where current asset values can dominate this shorter-term outlook.

Our guiding objective is to be conscious of the level of change suggested in strategic asset allocations for the long-term investors we advise.

Guiding Objectives and Process

A set of underlying beliefs guides the development of our capital market projections:

1. An initial bias toward long-run averages
2. A conservative bias
3. An awareness of risk premiums
4. A presumption that markets ultimately clear and are rational

By "conservative bias," we mean that we do not tend to respond to immediate market conditions and let very recent performance, current valuations, or market emotion unduly influence our expectations. As a result, Callan's expectations are neither overly optimistic when markets are running hot nor unduly pessimistic when performance, valuations, or emotions are extremely negative. We believe this bias helps our long-term investors pursue a steadier course in their investment policy.

By risk premiums, we mean general principles of risk aversion: Investors typically require greater compensation to take on incremental risk. Over the long term, high-risk asset classes such as stocks are expected to outperform lower-risk classes like bonds.

Long-term compensated risk premiums represent "beta"—exposure to each broad market, whether traditional or "exotic," with limited dependence on successful realization of alpha. Our projections of risk go beyond observed volatility to include other practical risks like illiquidity and implementation.

Our guiding objective is to be conscious of the level of change suggested in strategic asset allocations for the long-term investors we advise: defined benefit (DB) plan sponsors, foundations, endowments, trusts, defined contribution (DC) plan participants, and high net-worth families.

One key step in the development of our projections is a test for reasonable results. Importantly, our process is designed to ensure that the forecasts behave reasonably and predictably when used as a set in an optimization or simulation environment. We look for continuity as we move from safer to riskier portfolios, so that small movements along the efficient frontier do not cause large or arbitrary changes in portfolio weightings. Since different investors have different risk tolerances, we believe it is important that the projections inform the full range of potential portfolios. Another test of reasonableness is whether the projections suggest asset mixes that would not or could not be found in the institutional investment universe, such as an extreme under- or over-weighting of an asset class in an optimal portfolio. This test may not necessarily disqualify an assumption for an asset class, but it will lead us to thoroughly reexamine the assumption to ensure that it is reasonable.

The capital market projections consist of projected returns and two measures that contribute to projected portfolio volatility—standard deviation and correlation. We develop expectations for inflation, the broad asset classes, and some of the detailed sub-asset classes of particular interest to our clients and investors. The standard set of asset classes includes:

Callan's Breakdown of the Capital Markets

- **Global Equity**
  - Broad U.S. Equity
    - Large Cap
    - Small/mid Cap
  - Non-U.S. Equity
    - Developed Markets
    - Emerging Markets
- **Global Fixed Income**
  - U.S. Fixed Income
    - Short Duration
    - Broad Market
    - TIPS
    - High Yield
    - Long Duration
  - Non-U.S. Fixed Income
    - Developed Markets
    - Emerging Markets
- **Real Estate**
  - Private Core Real Estate
- **Alternative Investments**
  - Private Equity
  - Hedge Funds
  - Commodities
- **Cash Equivalents**
- **Inflation**

The long-term projections for returns, standard deviations, and correlations are intended to represent our best thinking regarding a 10-year period, chosen to represent the investment horizon of a long-term investor and to fully capture one or more complete market cycles. Our median projections represent the midpoint of a range of possible results, rather than a specific number.

The projection process involves the application of advanced modeling at the individual asset class level (for example, a detailed bond model or an equity model), a path for interest rates and inflation, a cohesive economic outlook, and a framework that encompasses Callan beliefs about the long-term operation and efficiencies of the capital markets.

Applications to Strategic Planning

The capital market projections feed the strategic planning process through a variety of tools and application exercises. First and foremost, the process requires Callan to review and articulate our fundamental beliefs in the operation of the capital markets, and by extension, reminds us to lead our clients through the same intellectual exercise. The review of the economic environment and the examination of asset class performance help us place recent performance and valuations in proper long-term perspective. The periodic discussion of the capital market expectations presents an opportune time for fiduciaries to take a step back from the noise of recent market results and reaffirm their strategic investment policy.

The return, standard deviation, and correlation estimates are used in Callan's optimization tool to evaluate ranges of efficient asset mixes, to calculate projected return and risk for specific strategic portfolio targets, and to gauge the potential range of portfolio results over different time periods. The capital market projections are key inputs to Monte Carlo simulation models we use to evaluate the complete financial condition of DB plans, endowments, foundations, sovereign wealth funds, trusts, insurance general accounts, operating funds, and other institutional pools. Longer-term versions of these projections are used to evaluate DC target date glide path funds. All of these applications are designed to help fiduciaries and other investors make informed decisions on the long-term strategic direction for their investment programs.

About the Author

Jay V. Kloepfer is an Executive Vice President and the Director of Capital Markets Research. The Capital Markets Research group helps Callan's fund sponsor clients with their strategic planning, conducting asset allocation and asset/liability studies, developing optimal investment manager structures, evaluating defined contribution plan investment lineups and providing custom research on a variety of investment topics.

Jay is the author of the "Callan Periodic Table of Investment Returns," which he created in 1999. He is a member of Callan's Management Committee and is a shareholder of the firm.

Prior to joining Callan, Jay was a Senior Economist and the Western Regional Manager for Standard & Poor's DRI. Jay earned an MA in Economics from Stanford and a BS with honors in Economics from the University of Oregon.

If you have any questions or comments, please email institute@callan.com.

About Callan

Callan was founded as an employee-owned investment consulting firm in 1973. Ever since, we have empowered institutional clients with creative, customized investment solutions that are uniquely backed by proprietary research, exclusive data, ongoing education and decision support. Today, Callan advises on more than $2 trillion in total assets, which makes us among the largest independently owned investment consulting firms in the U.S. We use a client-focused consulting model to serve public and private pension plan sponsors, endowments, foundations, operating funds, smaller investment consulting firms, investment managers, and financial intermediaries. For more information, please visit www.callan.com.

About the Callan Institute

The Callan Institute, established in 1980, is a source of continuing education for those in the institutional investment community. The Institute conducts conferences and workshops and provides published research, surveys, and newsletters. The Institute strives to present the most timely and relevant research and education available so our clients and our associates stay abreast of important trends in the investments industry.

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