Capital Markets Assumption Modeling Process

Economic Growth

The expected return for Global Equity is a key assumption for the Economic Growth class. It directly defines the assumption for the largest asset class in the portfolio and is also a key part of the total return assumption for Private Equity. The basic process for estimating the long-term expected return incorporates two major assumptions:

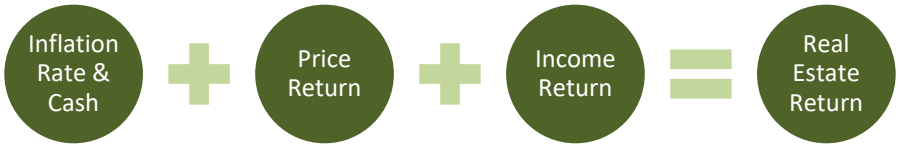
- Expected return on cash
- Equity risk premium

The expected return on cash is directly tied to the long-term assumed inflation rate, a consistent assumption across assets in the portfolio and for liability modeling. The equity risk premium – the additional return above cash for accepting risk of ownership in companies – reflects a few basic factors. One is the current level of prices in public equity markets and the resulting expectation for dividend yields. Another is the expected growth in company earnings and dividends over time.

Higher dividend yields or higher expected earnings growth translate into higher expected returns. The long-term assumption for public equity blends a short-term expectation based on dividend yields and earnings growth with a long-term historical average for public equity.

Real Assets

For the Real Assets strategic class, the assumption for Real Estate is a key component as it's the largest portion of the Real Assets class. Like the approach in Global Equity, the process for estimating Real Estate is similar: blend the expected cash and inflation rate with the expected income return for Real Estate. Instead of a dividend yield like with Global Equity, Real Estate has a similar measure of income relative to price (the so-called "capitalization rate"). Income return, the largest source of return in Real Estate, is closely tied to this measure. When Real Estate prices are high, the income relative to price is lower, resulting in lower expected returns (and vice versa). The process for estimating future Real Estate returns is:



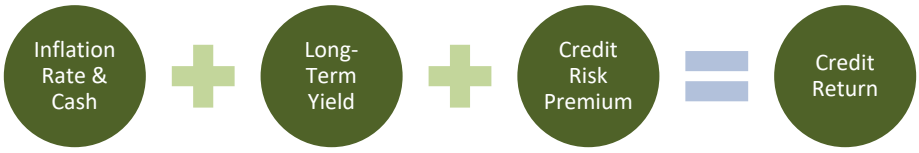
Diversifying

The expected return from government bonds is the most important component for the Diversifying class. Like the dividend yield in Global Equity and income return in Real Estate, the yield – a measure of the current income returns in Fixed Income – is a key driver of future returns. When yields are higher, expected returns are higher (and vice versa). The expected return for Fixed Income combines the cash and inflation return with the additional yield for longer-term bonds:

The common theme in the major components of capital markets assumptions is the idea that current level of prices and yields for different assets influences the future expected returns. The long-term assumptions used by CalSTRS combines relatively short-term expectations that are influenced by current asset prices with long-term historical averages.

Credit

Much like Fixed Income, the expected return of the Credit strategic class is a function of current income returns or yields. All Credit includes an additional premium derived from the perceived credit worthiness of the debt issuer and Private Credit includes an additional liquidity premium. As a result, Credit is expected to have higher returns than Fixed Income at the tradeoff of higher expected risk.



When economic conditions worsen, Credit risk premiums generally increase which can put downward pressure on the prices of Credit instruments. In the short run, this repricing can lead to lower returns for existing Credit holders. Over the long run however, higher Credit premiums are expected to improve returns as investors are compensated with higher yields on new debt.