

Return Predictability and Expected Returns

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Summary

The question whether stock returns are predictable is one of the central issues in academic finance research. This question is important since return predictability has direct implications for financial models of risk and return. It is also of interest to practitioners in the investment management industry concerned with asset allocation, market timing strategies, and active risk management.

Numerous studies in the past few decades have investigated whether aggregate stock returns can be predicted using financial variables such as the dividend-price ratio (or dividend yield), the book-to-market ratio, and various variables related to interest rates. Yet, the debate on whether returns are predictable and on what economic forces drive any such predictability is far from settled. The conventional wisdom from the early literature is that financial ratios (such as the aggregate dividend yield) predict aggregate returns – and that this predictability can be attributed to variation in expected returns, since dividend yields have little predictive power for dividend growth rates. However, in recent years the debate on whether these results are robust, whether their interpretation is correct, and whether the return predictability can be exploited by investors in real time has been re-ignited.

In this project, we propose to take a direct approach to testing whether variation in aggregate returns can be attributed to changes in expected returns by using a recent innovation in the literature on the implied cost of capital (ICC). The ICC of a given firm is the discount rate that equates the current stock price to the present value of expected

cash flows. In other words, the ICC is designed to measure the firms' expected stock returns. The main advantage of the ICC is that it neither relies on noisy realized returns nor on a specific asset pricing model. Instead, it derives expected returns directly from stock prices and earnings forecasts.

Traditional versions of the ICC rely on analysts' earnings forecasts as a proxy for expected cash flows. However, there are two major limitations to using the analyst-based ICC as a proxy for expected returns in predictive regressions. First, there is growing evidence suggesting that the performance of the analyst-based ICC as a proxy for expected returns is not satisfactory. Second, the analyst-based ICC requires IBES analyst data and thus has limited cross-sectional and time-series coverage, which impedes the investigation of issues that require a long time-series of expected return estimates or expected return estimates for small or distressed firms. This is of important concern for studies on return predictability, which typically use annual data on aggregate stock returns over many decades – while the analyst-based ICC is only available since the early 1980s. In addition, including expected return estimates of small and distressed firms may be important to truly capture market-wide fluctuations in discount rates.

Instead, we use a new, “model-based” approach to estimate the ICC that uses earnings forecasts obtained from a cross-sectional earnings model. This approach has two important advantages relative to the analyst-based ICC. First, it is not affected by the various issues that lead to the well-documented biases in analysts' forecasts. Recent research suggests that, as a result, this new approach produces a much more reliable proxy for expected returns. Second, it allows us to estimate the ICC for a much larger sample of firms over a much longer time period. The latter advantage is crucial for predictive regressions, which require a long time-series of aggregate return data.

The aim of this project is to analyze whether the aggregate model-based ICC can be used to predict aggregate realized returns. In addition, we provide direct evidence on whether variation in aggregate realized returns can be attributed to changes in expected returns. Prior studies try to infer this relation from the positive relation between financial ratios and future returns and the weak relation between financial ratios and future growth rates of fundamentals. Our analysis of the aggregate model-based ICC (a proxy of ex ante expected returns) as a predictor for aggregate returns is not only relevant for academic researchers, but also for investment practitioners interested in asset allocation and especially in designing optimal market timing strategies. Our study will also provide new insights into which underlying forces drive variation in aggregate returns. These insights will allow for a better assessment of the different sources of (systematic) risk that drive stock returns, which is a crucial input to active-risk budgeting and hedging decisions.