Equity Term Structures without Dividend Strips Data*

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Abstract

We use a large cross-section of equity returns to estimate a rich affine model of equity prices, dividends, returns and their dynamics. Using the model, we can price dividend strips of the aggregate market index, as well as any other well-diversified equity portfolio. We do not use any dividend strips data in the estimation of the model; however, model-implied equity yields generated by the model match closely the equity yields from the traded dividend forwards reported in the literature. Our model can therefore be used to extend the data on the term structure of discount rates in three dimensions: (i) over time, back to the 1970s; (ii) across maturities, since we are not limited by the maturities of actually traded dividend claims; and most importantly, (iii) across portfolios, since we generate a term structure for any portfolio of stocks (e.g., small or value stocks). The new term structure data generated by our model (e.g., separate term structures for value, growth, investment and other portfolios, observed over a span of 45 years that covers several recessions) represent new empirical moments that can be used to guide and evaluate asset pricing models.

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