On the Dynamic Relation between Returns and Idiosyncratic Volatility

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Abstract

The dynamic effect of idiosyncratic risk on market returns has been debated recently. Previous studies examine the effect based on a regression of excess returns on one-lagged volatility. We claim this approach provides only a partial, limited picture of the dynamic effect of idiosyncratic risk that tends to be persistent over time. By correcting for the serial correlation in idiosyncratic volatility, we find a significant positive effect of idiosyncratic volatility. Unlike previous studies, this finding is robust with respect to various firm size portfolios, sample periods, and measures of the idiosyncratic risk. We further find that the market's response is beyond what the efficient market hypothesis anticipates, and the idiosyncratic volatility contains fundamental factors as well as nonfundamentals. This suggests mispricing of the stock market in its response to idiosyncratic risk, and there may be some measurement problems with idiosyncratic risk, which may be related to non-diversifiable risk.

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