What drives volatile emerging stock market returns?

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Abstract

We investigate what drives highly volatile stock return variations in an emerging country stock market. By applying Vuolteenaho's [What drives firm-level stock returns? Journal of Finance 57 (2002), 233–264] log book-to-market model to the Korean stock market, we find that at the individual stock level, cash-flow news contributes to stock return variation more than expected-return news does. However, at the aggregate market level, expected-return news dominates stock return variation. This is because the expected-return news has a substantial common element, whereas cash-flow news is largely firm-specific and thus diversifiable. Our finding suggests that the conventional wisdom that cash-flow news is firm-specific and expected-return news is market-wide is valid for emerging countries with volatile stock returns.
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1. Introduction

Stock price is often represented as the present discounted value of expected future cash flows. This implies that movements of stock returns are driven by two components: (i) changes in expected future cash flows and (ii) changes in expected returns (i.e., discount rates). However, the extent to which each of the two components contributes to stock return movements seems not well understood.

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The conventional approach by Campbell and Shiller was based on the dividend discount model of stock price, treating dividend payouts as cash flows relevant to shareholders (e.g., Campbell and Shiller, 1988a,b; Campbell, 1991). Applying the Vector Autoregression (VAR) technique, they decomposed stock return variations into the cash flows related component, the expected return related component and the covariance of the two components. However, researchers have expressed some reservations about the Campbell–Shiller approach based on the dividend discount model for the following reasons.

First, one can raise a question as to whether dividends are most relevant to the value of a stock. In a theoretical no-friction world such as the one assumed in the Modigliani–Miller model, changes in dividends will not affect the value of a stock. Second, one can point out that dividends may be an incomplete measure of cash flows to the shareholders. Dividends represent only a fraction of cash flows distributed to shareholders, given that there are several other forms of distributions (e.g., share repurchases). And it is worth noting that firms have gradually substituted share repurchases for dividend payouts in Corporate America (see, for example, Grullon and Michaely, 2002).

The purpose of this paper is to examine what drives volatile stock return variation in an emerging country stock market such as the Korean stock market. The volatility of stock returns tends to be high in emerging country stock markets, relative to that of stock returns in developed country stock markets. Fig. 1 compares return volatilities of the aggregate U.S. and Korean stock indices. The graph shows that the return volatility of the Korean stock market is greater than that of the U.S. stock market over most of the 21 year period
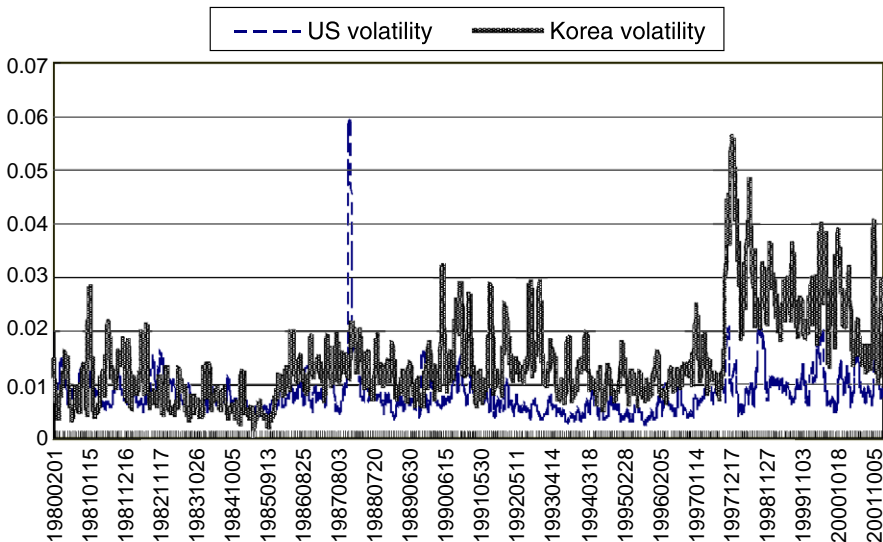

Fig. 1. Stock return volatilities in U.S. and Korea stock markets. The figure compares the return volatilities of the U.S. aggregate market index (the NYSE composite index) and the Korean aggregate market index (the KOSPI) over the sample period of 1980–2001. Return volatilities of each market are defined as the standard deviations of daily returns over 20 trading days. We estimate the standard deviation of 20-day daily returns successively, starting from the beginning of 1980. The dotted line represents the return volatilities of the U.S. market index and the solid line represents the return volatilities of the Korean market index.