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The effect of demand on stock prices: new evidence from S&P 500 weight adjustments

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Abstract

Purpose – Many papers have argued that there are long-run downward-sloping demand curves (LRDDC) for stocks. The purpose of this paper is to analyze this hypothesis using a new, unique, and ostensibly information-free event: the re-weighting of the Standard & Poor (S&P) 500 index from market based to free-float based, which involves a significant shift in supply that, under the LRDDC, should result in significant and permanent price movements.

Design/methodology/approach – Event study methodology is used to examine abnormal returns and trading activity around the free-float weight implementation dates for S&P 500 firms with various investable weight factors.

Findings – As a result of S&P 500 index re-weighting, affected stocks experience statistically significant excess returns of –1.54 percent during the event week. This return is reversed during the following 30 days as trading volume returns to normal levels. These results are contrary to previous studies that analyze ostensibly informational events and/or different exchanges.

Research limitations/implications – Results of this study indicate that arbitrage appears to be effective in eliminating a long-term mispricing, which challenges the validity of the LRDDC hypothesis.

Originality/value – This study contributes to the body of literature on the S&P 500 index firms by providing supporting evidence for the price-pressure hypothesis.

Keywords Pressure, Demand curve, Stock prices

Paper type Research paper

1. Introduction

I analyze a new information-free event, which is appropriate for estimating the magnitude and significance of the slope of long-run demand curves for Standard & Poor (S&P) 500 index firms. Unlike additions to widely followed stock indices that can be arguably interpreted as informational events (e.g. Denis *et al.*, 2003), this paper focuses on a recent incident that significantly affected stock supply and involved no changes to the S&P 500 index constituents. Prompted by concern about liquidity and comparability with other indices, S&P moved forward on its commitment to bring the world's most recognized index, as well as its other US indices, to a full-float adjustment. As of 16 September 2005, companies in the S&P 500 (hereafter Index) are weighted based on the market value of their free-float, defined as shares outstanding less

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