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Asset fire sales (and purchases) in equity markets ☆

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Abstract

This paper examines institutional price pressure in equity markets by studying mutual fund transactions caused by capital flows from 1980 to 2004. Funds experiencing large outflows tend to decrease existing positions, which creates price pressure in the securities held in common by distressed funds. Similarly, the tendency among funds experiencing large inflows to expand existing positions creates positive price pressure in overlapping holdings. Investors who trade against constrained mutual funds earn significant returns for providing liquidity. In addition, future flow-driven transactions are predictable, creating an incentive to front-run the anticipated forced trades by funds experiencing extreme capital flows.

JEL classifications: G11; G12; G14

Keywords: Mutual fund flows; Liquidity; Price pressure

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1. Introduction

This paper investigates the costs of asset fire sales in equity markets. Financial distress is costly whenever a firm's past financing decisions interfere with current operations. This can arise when capital providers force a firm to quickly sell specialized assets. Because the sale is immediate, the liquidity premium can be large, resulting in transaction prices that are substantially below their fundamental values. The high liquidity of equity markets prompts many firms that specialize in equity investing to be willing to allow capital providers to withdraw their capital on demand. Nonetheless, equity market are not perfectly liquid, and evidence presented in this paper suggests that even in the most liquid of markets, assets sometimes sell at fire sale prices.

Shleifer and Vishny (1992) analyze the equilibrium aspect of asset sales and describe how liquidity can disappear, making it very costly for someone who is forced to sell. They essentially argue that asset fire sales are possible when financial distress clusters through time at the industry level and firms within an industry have specialized assets. When a firm must sell assets because of financial distress, the potential buyers with the highest valuation for the specialized asset are other firms in the same industry, who are likely to be in a similarly dire financial situation and therefore will be unable to supply liquidity. Instead, liquidity comes from industry outsiders, who have lower valuations for specialized assets, and thus bid lower prices.

This story can easily be recast in a capital market setting. Here, the firms are professional investors, who follow somewhat specialized investment strategies. In this context, specialization refers to concentrated positions in securities that have limited breadth of ownership and, importantly, have significant overlap with others following a similar strategy. For example, merger arbitrage is a specialized investment strategy followed by many professional investors, requiring relatively large positions in stocks that eventually are held mainly by merger arbitrageurs. Specialization is common in investment management, with many professional investors focusing on a single or limited number of investment strategies. Merton (1987) and Shleifer and Vishny (1997) present models of investment management that rely on specialization to derive limited arbitrage.

Accurate assessment of asset fire sale costs requires considerable transparency in the decisions of the firm and its investors, whereas most settings in which asset fire sales are costly are likely to be highly opaque. The primary challenge in measuring the costs of asset fire sales is that distinguishing financial from economic distress requires identifying asset sales that are a direct consequence of the financing decisions of the firm. In many corporate settings, financial difficulties and economic difficulties coincide over multi-year periods, making causality difficult to assign. Additionally, efficient estimation of costs requires precise measurement of fair asset value, which can be a challenge in environments characterized by illiquidity and declining prices.

The focus of this paper is on the assets held by open-ended mutual funds. The open-ended mutual fund structure produces a highly transparent firm with investment decisions that are easy to identify and monitor. The open-ended mutual fund is also extremely reliant on outside capital to fund its investment opportunities—only the occasional back-end load stands between outside capital providers and their capital. When capital is immediately demandable, a poorly performing mutual fund without significant cash reserves has no choice but to sell holdings quickly. Regulations and self-imposed constraints effectively prevent mutual funds from raising funds by short selling other