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The impact of airline financial distress on US air fares: A contingency approach

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ABSTRACT

This article investigates to what extent an airline's financial distress impacts its pricing behavior. While prior research suggests that, on average, distressed airlines sell at lower fares, it is hypothesized that the magnitude of this effect may depend on certain firm and market specific contingencies. A large-scale empirical analysis using panel data from the US airline industry is conducted. The results indicate that firm financial distress and air fares are generally negatively related. It is further shown that the magnitude of the effect of distress on fares decreases with the magnitude of operating costs and firm's market shares and increases with firm size and the level of market concentration. Implications for policy makers and managers are discussed.

1. Introduction

Firm financial distress is often argued to lead to and result from price competition: Low market prices may drive firms into financial distress and bankruptcy, and the latter may, in turn, affect a firm's competitive pricing behavior. The so-called sick industry problem, thus, is intimately associated with the issues of financial distress and price competition as repeatedly evidenced in the US airline industry. In recent years, many US airlines have sought bankruptcy protection under Chapter 11,[1] the ultimate manifestation of financial distress. Between 2001 and 2005 alone, seven large US carriers took advantage of the provisions of this code to facilitate their restructuring processes.

Airlines can achieve significant reductions in labor, leasing, and debt costs as they leverage their financial distress to renegotiate contracts or enter Chapter 11 protection (McCafferty, 1995), thus giving distressed firms a competitive edge over their healthier counterparts. Following Delta's and Northwest's bankruptcy filings, analysts therefore warned of potentially adverse consequences for other carriers such as American Airlines and Continental Airlines (Trottman, 2005). Consequently, researchers (see e.g. Kennedy, 2000) and managers of non-distressed firms have repeatedly criticized the destructive implications of Chapter 11 protection. Gary Kelly, then Chief Financial Officer with Southwest Airlines, for example, notes that "the length of time an airline can go through bankruptcy protection and offer distressed prices is very unsettling" (McCafferty, 1995). Similarly, Robert Crandall, the former Chief Executive Officer of American Airlines, argues that "Chapter 11 also undermines responsible managements. In an intensely competitive industry providing a commodity product, the 'dumbest competitor'—unrestrained by fear of failure—sets the standard" and hence calls for "bankruptcy laws designed to incentivize success and penalize failure" (Crandall, 2005).

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[1] Title 11 of the US code, commonly referred to as Chapter 11, is a form of interim bankruptcy and grants the filing company protection from its creditors until a reorganization plan is developed and approved by the creditor committees.

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Most of the previous statements make the explicit or implicit assumption that financially distressed and bankrupt firms sell at lower prices than their healthier competitors. This contention, however, has not found consistent theoretical and empirical support. Researchers from the economics, corporate finance, and strategy fields have published a substantial amount of literature on this and related issues (e.g. Borenstein and Rose, 1995; Ferrier et al., 2002; Opler and Titman, 1994). While many studies conclude that, on average, distressed firms sell at lower prices (e.g. Hofer et al., 2005), it is also evident that the effect of financial distress on prices is not uniform across firms and markets. Borenstein and Rose (1995), for example, find that both Eastern Airlines and TWA lowered their air fares prior to or after declaring bankruptcy in 1989 and 1992, respectively. There is, however, no evidence of systematic price decreases before or after the Chapter 11 filings of Continental Airlines and America West Airlines in the early 1990s. By the same token, distressed firms' price cuts may be economically viable in some markets but not in others.

This study addresses the following research question: In what instances will financial distress impact the firm's pricing behavior? It is suggested that firm and market-specific contingencies may partly explain the variability of a troubled firm's pricing behavior. This contention is in line with the work of Singh (1986) who finds that the link between financial distress and firms' (pricing) strategies is complex and cannot be captured by looking at direct effects only. In a similar vein, Ferrier et al. (2002) stress the importance of context-specific contingencies in defining the relationship between performance distress and competitive behavior. This research builds on the work of Ferrier et al. (2002) and proposes a contingency framework that aims at characterizing the relationship between financial distress and prices, and identifying factors that may affect the magnitude of this relationship. This contingency framework is tested empirically in the context of the US airline industry. The empirical results suggest that financially distressed firms offer lower prices than their healthier competitors, *ceteris paribus*. The magnitude of the effect of firm financial distress on prices, however, is shown to decrease with unit operating costs, increase with firm size, and decrease with firm market shares. The price effects of financial distress are also stronger in more concentrated markets.

The insights provided by this research may be useful to both managers and policy makers. Distressed firms and their competitors gain a better understanding of how financial conditions typically impact pricing decisions. Managers of financially distressed firms may benefit from this knowledge when developing turnaround strategies. Competing (healthy) firms, on the other hand, can more accurately anticipate distressed firms' pricing actions and act accordingly. For policy makers, the findings of this study will help clarify if, when, and to what extent financial distress and Chapter 11 protection impact sales prices and the competitive behavior of firms.

The remainder of this article is structured as follows: A brief review of the extant literature on the distress–price relationship is provided in Section 2 and a baseline hypothesis is formulated. The contingency framework is outlined in Section 3 and the hypothesized moderating effects of firm and market characteristics are discussed. Variable measurement, data, and methodology issues are addressed in Section 4, and the empirical results are presented in Section 5. The study's findings and their implications are summarized in Section 6, and some limitations and directions for future research are noted.

2. Literature review

As pointed out earlier, researchers from various fields have theoretically and empirically investigated how a firm's financial distress may impact its (pricing) strategies. Some key examples of this work are briefly summarized below and a baseline hypothesis about the relationship between financial distress and prices is presented.

In the economics stream of research, Kennedy (2000) and Brander and Lewis (1986) assert that a firm's financial condition affects its market conduct, and Busse (2002) supports this contention, indicating that financially distressed firms are more likely to start price wars than their healthier competitors. Hofer et al. (2005) also find that distressed airlines' fares tend to be lower than their healthier competitors' ticket prices. Borenstein and Rose (1995), however, find that financial distress impacts air fares in some cases only.

From a corporate finance perspective, Baker (1973) argues that highly leveraged firms are more risk-seeking than relatively profitable firms. Along the same lines, Maksimovic and Zechner (1991) suggest that financially distressed firms are more likely to choose riskier (pricing) strategies. Opler and Titman (1994), in contrast, attribute the lower performance of troubled firms to the (predatory) aggressiveness of competitors and the costs of financial distress rather than to the firm's own pricing behavior.

The strategy literature, finally, has focused the attention on the link between performance distress and competitive behavior in general. Bowman (1982) contends that troubled firms may be more risk-assertive (i.e. inclined to compete more aggressively) than healthy firms, and Miller and Chen (1994) also relate past financial distress to competitive aggressiveness. Ferrier et al. (2002), however, find "that poor-performing firms were less likely to exhibit aggressive competitive behavior" (p. 311) when looking at the direct relationship between performance distress and competitive aggressiveness.

In summary, there is some theoretical and empirical dissent about the nature of the relationship between financial distress and prices. Previous empirical findings, however, mostly support the contention that financial distress is negatively related to sales prices. The central tenet of this study is that there are a number of contingencies that may impact the relationship under investigation, thus explaining why distress may lead to lower prices in some instances but not in others. The following section discusses these contingencies and related hypotheses are formulated.