SKY'S THE LIMIT?
ACCRUAL AND CASH-BASED DETERMINANTS OF U.S. AND EUROPEAN AIRLINE MARKET VALUATION

Philip J. Slater, Winston-Salem State University, Winston-Salem, NC, U.S.A.
Bert J. Zarb, Embry-Riddle Aeronautical University, Daytona Beach, FL. U.S.A

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ABSTRACT

The airline industries in both the United States and Europe share many commonalities. Both industries are precariously exposed to a plethora of extraneous demand shocks such as terrorist attacks, global pandemics, and fuel price hikes, as well as more recent issues such as surging post-pandemic passenger demand exacerbated by dire staff shortages. Such risk determinants are juxtaposed against a need for robust liquidity and solvency positions to fund an array of short and long-term cash disbursements. Amidst such industry uncertainties, accurate valuation is imperative to viability, growth and sustainability. This study investigated and compared the accrual and cash-based effects of operating income, operating cash flows and firm size on the market value of publicly-traded U.S. and European airlines. We find a statistically significant relationship between these metrics and airline market valuation. This study is both warranted and timely as airlines face ongoing issues related to surging post-pandemic demand for air travel, extensive airline and airport chaos on both sides of the Atlantic related to staffing shortages and collective bargaining, and continuing uncertainty surrounding fuel prices and fluctuating pandemic numbers.

Keywords: *Airlines, Market Valuation, Cash Flows, Operating Income, Firm Size*

1. INTRODUCTION

The airline industry elicits both thoughts of the excitement and glamour of air travel, as well as a sense of awe of man's technological progress and prowess (Hochmuth, 2013). One of mankind's greatest accomplishments is undoubtedly air travel. The technological advances in flight achieved over the last century have enabled efficient and safe travel to all parts of the world. Alongside other industries, airlines have sought and subsequently received capital from an array of individual and institutional investors in order to fund such capitally-intensive and technologically complex enterprises (Capobianco & Fernandes, 2004; IATA, 2013).

The advent and proliferation of air travel has seen the airline industry metamorphize into a sophisticated business model, with significant variations noted even within this model (Lohmann & Koo, 2013). Such intra-model variance creates an amplified need for accurate valuation techniques in order to appropriately value airline enterprises as well as create and sustain future growth (Vasigh et al, 2013).

At the current time, airlines in both the United States and Europe are facing an array of issues. During the Covid-19 pandemic, the industry collectively amassed over $180 billion worth of debt in 2020 alone, with debt levels continuing to rise (Bouwer et al., 2021). Due to fairly recent passage of new accounting standards, both U.S. and European airlines are also now forced to report all leased "right-of-use" assets and corresponding liabilities on their balance sheets, with commentators predicting a potential future breach of debt covenants (Raghavan & Zarb, 2018), adding to uncertainty and fueling speculation. Airlines on both sides of the Atlantic are also struggling with the spike in post-covid demand for air travel