

## MARKET RISK AND EFFICIENCY

## Do Asset Fire Sales Exist?

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Financially distressed airlines can enter a vicious cycle when circumstances compel them to liquidate their fleets in the midst of an industry slump. Interest in used aircraft is weak in slumps, as is the likelihood that a buyer could find a lessee for any aircraft. This makes it more likely that distressed airlines will sell aircraft to financial institutions (e.g., banks and leasing companies), which during recessions buy aircraft at a discount of 30% to the average market price, according to the author's review of 467 aircraft transactions. That is about twice the discount sought by other airlines during slumps. There is no discount when the industry is growing.

This paper estimates discounts by examining prices from a comprehensive sample of commercial aircraft transactions. Use of aircraft transactions has a number of advantages over previously published work on asset liquidation, which inferred liquidation costs from stock price reactions.

These findings can be extrapolated to forced asset sales in other industries, but market for used aircraft is extremely liquid compared with markets for most real assets. Liquidation costs are likely to be greater in industries where used asset markets are less liquid.

Also, empirical results in this paper show that airlines' financial conditions are key determinants of the prices they receive for aircraft. Financially constrained airlines (defined as those with above-industry-median leverage ratios and below-industry-median current ratios) receive lower prices than unconstrained rivals. This suggests benefits to limiting debt; rather than being forced to sell assets at discounts, maintaining spare debt capacity allows firms to be on the "buy-side" of industry fire sales.

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