Applied Game Theory in the United Airlines Bankruptcy Case

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Abstract

How United Airline's bankruptcy attorneys got the best deals for their client by practically applying the "Prisoner's Dilemma" to United's aircraft lessors.

Keywords

bankruptcy, game theory, aircraft leasing.

The very practical application of game theory in the bankruptcy proceedings of United Airlines and its affiliated companies ("United") is fascinating and worth noting.

In the aftermath of troubles in the airline industry that followed 9/11, United filed for bankruptcy protection on December 9, 2002. As is the case with most airlines, many of the aircraft flown by United on its routes are not owned outright by United, but rather leased to it by investors and finance companies.

After it filed bankruptcy, United rationally sought to pay the least that it possibly could for the aircraft that it had leased. Under §1110 of the United States Bankruptcy Code, which was enacted after the last major round of airline bankruptcies in the early 1990s, aircraft lessors were given the right to repossess their aircraft from bankrupt airlines if the leases were not brought current within 60 days, unless the deadline is extended by mutual agreement (under §1110(b) of the Bankruptcy Code).

United implemented several apparent strategies that successfully used game theory to minimize the amount that it had to pay on its leases, while at the same time minimizing the aircraft it was at risk of having to return to the lessors. United's strategies were successful because of the severely depressed post-9/11 market for aircraft. United appears to have accurately predicted that although the statute gave it a 60 day deadline to bring its aircraft leases current, the aircraft lessors for the most part would not want to take back those aircraft. United's apparent strategies can be broken down into a major play undertaken in the first 60 day, or pre-§1110 period, and a different major play undertaken during the §1110 period.

In the pre-§1110 period, United seems to have counted on an ability to panic lessors into providing it sufficient aircraft to meet its operating needs on bargain basement terms. On December 12, 2002, three days after filing bankruptcy, United faxed notices to its aircraft lessors by type of aircraft (e.g., 737s), offering to assume, with substantial discounts, the first 20 aircraft of the noticed type whose lessors so agreed to those discounts. In the offer, United said the discount it was seeking would only get more severe in any subsequent offers. True to it word, United followed up six days later with another fax sent to all of its lessors stating that it now had the 20 aircraft it needed from the first fax that it sent out, and now was willing to take an additional 20 aircraft, but only on even less favorable economic terms than those set out in the first fax. On December 23, United sent out a fax to its aircraft lessors rescinding that second offer, and making a final offer for the remaining aircraft, on yet worse economic terms.

Many of United's aircraft were leased to it pursuant to "leveraged leases," in which special-purpose entities known as "owner-trusts" were set up to borrow from lenders, generally on a non-recourse basis (which allowed the lenders to pursue only the aircraft itself as collateral, rather than the special-purpose entity or its owners, in the event the loan was not repaid). With that money borrowed from the lenders, the "owner-participant" buys the aircraft to lease it to United in a leveraged lease. The owner-participant retains what is called a residual position. That residual position will be valuable only if the lease is paid in full during its term, the loan is paid off (by the rent payments), and the aircraft is returned intact and available for re-sale or re-lease.

Since the lease and the aircraft are the only way for a lender to get repaid, in order to amend a lease, the owner-participant needs permission from the lenders. However, the loans are long-term, and during their life they are often repackaged and resold a number of times to a number of lenders, and the beneficial owners of these loans are often difficult to identify. Often the debt is securitized, giving rise to multiple layers of nominal and beneficial holders. Even once the lenders are identified,

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tracking down the individuals who work for the lenders who have any authority to do anything about the loans adds a further layer of challenge.

Many owner-participants were at risk of seeing their residual position effectively wiped out from the first offer that United faxed out, and those that would have had positions surviving that still faced tremendous uncertainties due to the difficulty of communicating with, and getting permissions from, their lenders in order to act in a timely manner. Single investor lessors accordingly had a substantial advantage in this process over leveraged lessors. This all significantly enhanced the sense of panic in the aircraft leasing market, which worked to United's advantage.

Although United seemed to have reasonably benefited from the panic its actions instilled in its aircraft lessors, some lessors were not panicked, and others were too paralyzed even to panic, because they could not identify the lenders to their leveraged leases to obtain the consents required to modify them. Therefore, at the end of the pre-§1110 period, United still had some leases that it needed to address if it wanted to keep the aircraft to which they were subject.

United appears to have relied on a different game theory for the §1110 period. In a game called "The Prisoner's Dilemma," a person unable to communicate with another he doesn't trust often makes choices creating worse outcomes for both than would have been the case had they been able to communicate. This was first formulated by researchers for the RAND corporation in 1950, in nuclear confrontation modeling. For example, co-conspirators are arrested, placed in separate rooms, and interrogated. They know that if neither confesses, both will go free. But they are told that the first to confess will get six months in jail, while the other will serve a ten year jail term. Experience bears out that, typically, one confesses. Each is inhibited from making the rational decision for himself–not to confess- by his inability to trust or communicate with the other respecting that other's making of the same rational decision.

In order to practically implement the Prisoner's Dilemma, and cause the aircraft lessors to make decisions that were not rational for themselves, but that benefited to United and its entire creditor body, United told the Bankruptcy Judge that it needed to prevent the aircraft lessors from communicating with each other. The Judge recognized this was unfair to the lessors, but gave United what it wanted anyway, saying that outside of bankruptcy, sellers often have superior information and thus a negotiating advantage over buyers, and that United was merely using its knowledge and experience as an advantage over the aircraft financiers to facilitate its reorganization.[1] The Judge ordered that all stipulations under which leases were assumed and modified, or the §1110 period extended, would be filed under seal, and even the owner-participants could see the terms to which their own lenders stipulated with United to amend their own leases only by signing a confidentiality agreement.

The form of confidentiality agreement that United then sought to require was extremely one-sided. It required that the owner-participants give United five days advance notice before they could talk to their own lenders. It rendered nugatory expertise that counsel for a lessor could acquire and put to the benefit of multiple lessor clients. Lenders were to be required to sign their own confidentiality agreements with United, which would be unlikely in the case of securitized debt, since the indenture trustees would have a fiduciary duty to fully inform their bondholders. Damages claims by United of breach of the confidentiality agreements would have been adversary proceedings by United on the contracts, and not contempt of court for violation of a gag order or injunction, but damages, if proved, could have been immense.

United's preventing the lessors from learning each others' deals, not only gained for it a negotiating advantage, but also clouded the ability of lessors to assess the economic consequences of exercising remedies, and rendered the market opaque to third parties who might be interested in the aircraft that lessors may have otherwise chosen to take off lease and dispose of into the marketplace for used aircraft. There probably were very few, if any, instances in which United affirmed leases without changing the terms but, since these were all filed under seal, it is unknown. The same applied to §1110(b) extension stipulations. As one can imagine, the practical strictures that inhibited deal-making by leveraged lessors during the pre-§1110(a) phase remained in place in the §1110 phase. Finally, some lessors were not approached for §1110(a) agreements or §1110(b) stipulations, and did not know the status of United's view on those aircraft. Although all lessors were economically best served by all hanging tough, United's practical application of the Prisoner's Dilemma successfully prevented this from happening.

Even with all this successful gamesmanship, one aircraft lease indenture trustee's emergency motion showed that United, although it agreed to make the lease payments on a variety of aircraft, chose to differentiate the aircraft on which it would in fact make payment. On those aircraft that had a hot aftermarket, like A-320s, it paid the rent. On those aircraft with a dead aftermarket, such as 747s, apparently (based on the allegations of this emergency motion), it was just not paying the rent, despite having stipulated to perform.

The key to United's ability to succeed with its strategies was the depressed nature of the passenger aircraft market at the time. Although all of the lessors had remedies pursuant to the Bankruptcy Code to recover their aircraft, the economic terms offered by United, poor as they were, were more favorable than what lessors perceived they would had had available to them were they to have repossessed the aircraft. A little bit of practically applied game theory seems to have helped United assure that this was the case.

FOOTNOTE

1. Personal report by attorneys of Winston & Strawn appearing at February 6, 2003 Omnibus Hearing on behalf of United Airlines' lessors.