INFORMATION PROBLEMS, CONFLICTS OF INTEREST AND ASSET STRIPPING: CHAPTER 11'S FAILURE IN THE CASE OF EASTERN AIRLINES

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ABSTRACT

Eastern Airlines' bankruptcy illustrates the devastating effect of court-sponsored asset stripping—using creditors' collateral to invest in negative net present value "lottery ticket" investments—on firm value. During its bankruptcy, Eastern's value dropped over 50%. We show that a substantial portion of this value decline occurred because an over-protective court insulated Eastern from market forces and allowed value-destroying operations to continue long after it was clear Eastern should be shut down. The failure of Eastern's Chapter 11 demonstrates the importance of the court's role in protecting a distressed firm's assets, not only from a run by creditors, but also from overly optimistic managers.

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1. Introduction

Chapter 11 of the U.S. bankruptcy code defines the rules of the game under which a distressed firm's stakeholders renegotiate their claims. One of its purposes is to protect firms while they reorganize, particularly from seizures of assets by creditors. Ideally, Chapter 11 would allow viable firms to continue operations while undergoing value-increasing asset and financial restructurings. Non-viable firms and parts of firms would be shut down. In other words, Chapter 11 would protect distressed firms, but at the same time, serve the disciplinary role of the market for corporate control—forcing firms to re-evaluate their operations, restructure, change ownership, or shut down.

In reality, information and agency problems inherent to Chapter 11 often inhibit efficient outcomes (Wruck (1990)). This can happen in any distressed situation, but the courts' emphasis on preventing premature liquidation makes the problem acute when a firm is not economically viable. This is, in part, because the court has discretion to fund a firm's deficits using the proceeds of asset sales. For non-viable operations, this amounts to court-endorsed asset stripping—using creditors' collateral to invest in negative net present value "lottery ticket" investments. The situation is compounded by the fact that information problems and conflicts of interest between stakeholders

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make it difficult to determine whether the court is facilitating asset stripping or investing in operations that currently have a negative cash flow, but are positive net present value investments.

Asset stripping is problematic for all firms with liquid assets, and increases the cost of issuing both secured and unsecured debt (Baldwin (1993)). Because unsecured creditors' claims are not backed by particular assets, they are clearly vulnerable. However, secured creditors are also vulnerable if the court prolongs the automatic stay that prevents them from claiming their collateral.[1] Secured creditors' losses stem from the opportunity cost imposed by delay and situations where the debtor can affect their collateral value. For example, the value of assets requiring maintenance, like aircraft, deteriorates when a debtor skimps on maintenance or abuses the asset.

Our analysis of Eastern Airline's bankruptcy illustrates how devastating asset stripping problems can arise in Chapter 11. When Eastern filed Chapter 11, its value was over $4 billion. During the Chapter 11 process, financial claimants lost an estimated $2 billion—half Eastern's value. The firm's unsecured creditors were the biggest losers. The primary source of value loss was the continued operation of assets that generated $1.3 billion in operating losses in twenty-two months. These operating losses were funded with asset sale proceeds.

Chapter 11's failure in the case of Eastern Airlines illustrates the counter-productive aspects of insulating a distressed firm from the realities of its economic situation. Rather than simply protecting assets from seizure by creditors, an over-protective court insulated Eastern from the reality of its weak route structure, high labor costs, destructive labor relations, and the inevitability of the exit of assets from an industry with excess capacity. In the process, the court stripped creditors of their claims to what remained of Eastern's value, even after it was apparent that Eastern's equity was worthless. This outcome can be traced to stakeholders, with information and agency problems, acting in their perceived self-interests. Relevant stakeholders included financial claimants, managers, a court-appointed trustee, local unions, national unions and the judge.

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1 The automatic stay is described in section 362 of the bankruptcy code.

The rest of the paper is organized as follows. Section 2 analyzes how information and agency problems in Chapter 11 can lead to value decline and asset-stripping. It also examines the judge's role in the Chapter 11 process. Section 3 provides a brief history of events critical to understanding Eastern Airline's bankruptcy. It also enumerates data sources and collection methods used here. Section 4 describes claims against the bankrupt Eastern, and goes on to provide estimates of Eastern's decline in value during Chapter 11. Section 5 explores alternative explanations for the value decline and provides evidence supporting the hypothesis that asset stripping occurred during Chapter 11. Section 6 analyzes how information and agency problems resulted in poor decision making. Section 7 concludes.

2. Information Problems, Conflicts of Interest, and the Judge's Role in Chapter 11

A distressed firm's claimholders face a basic information problem. Simply put, claimholders must obtain enough reliable information to determine whether the firm's decline in cash flow (and value) is temporary or permanent. This information is critical because the value-maximizing way to resolve distress depends on it. A firm in temporary decline can meet its obligations by persuading financial claimants to restructure their claims. A firm in permanent decline requires major restructuring, including reducing fixed claims, restructuring operations, and if necessary, shutdown or liquidation of all or part of the firm.

Even when all parties' interests are aligned, a distressed firm can be especially difficult to value. In many distressed situations, matters are further complicated by severe agency problems. Agency problems arise because various approaches to reorganization have implications not only for firm value, but for the distribution of value across claimholders. Claimants will support a value-maximizing reorganization only if it also maximizes the value of their "piece of the pie" relative to the feasible alternatives. Claimants will support a value-destroying reorganization so long as it offers them a larger "piece of the pie" than they expect from a value-creating alternative.

Conflicts generated by the tension between value and distributive concerns result in a situation where no participant has both the relevant information about firm value and the incentive to reveal that information to others (Wruck (1990)). In pursuing their own interests, claimants have an incentive to present biased and inaccurate data as though it were unbiased and accurate. For example, shareholders have an incentive to claim the firm is only temporarily in trouble because it increases the likelihood that they will retain their equity stake. Creditors have an incentive to claim the firm is permanently damaged because it increases the likelihood that they can cut shareholders out of the reorganization. Managers have an incentive to side with the party less likely to fire them. In the resulting confusion, a firm in temporary decline can be turned into a firm in permanent decline as claimants fight over the distribution of value, or if a value-reducing reorganization policy is chosen because it furthers the interests of persuasive claimants.

Three features of Chapter 11 exacerbate agency problems among claimants. First, Chapter 11 allows management the exclusive right to file a plan of reorganization for at least 120 days (followed by 60 additional days to obtain approval for the plan). In major cases, this period is often extended several times. Management's right to set the agenda during this time provides them with an opportunity to extract value. For example, they can threaten (implicitly or explicitly) to manage the firm in a way that makes them better off, but destroys value for some or all claimholders. Second, Chapter 11 allows impaired creditors and shareholders to vote on a plan.[2] In the absence of a credible assessment of firm value, there is really no viable alternative. For example, denying shareholders the right to vote when the firm is in temporary decline deprives them of their equity value. On the other hand, if shareholders vote when the firm is in permanent decline, they can extract value by delaying the process or encouraging asset stripping to fund high-variance negative net present value investments. Third, there is legal ambiguity as to the claims non-financial stakeholders hold, including employees and the public. As a result, these constituencies can extract value both directly, by filing claims and lawsuits, and indirectly, by influencing court and public opinion.

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[2] Acceptance of a plan generally requires approval by all impaired creditor classes and shareholders. For each impaired class, acceptance of a plan requires the approval of two-thirds in amount and a majority in number of the claims voted. For equityholders, two-thirds of the shares voted must favor the plan. The court can "cram-down" a reorganization plan even if some impaired creditor classes or shareholders refuse to approve it, if it views the plan as fair and equitable to all impaired classes. This requirement is generally interpreted as meaning that claimholders receive at least what they would have received in liquidation, [Altman (1983) pp. 13-31].

When information problems and conflicts of interest are severe, the judge's assessment of a distressed firm's prospects becomes crucial. The judge can exclude equityholders or other claimants from the process if he concludes they have no claim. He can also include or exclude non-traditional claimants such as employees or the general public. More subtly, the judge's signals about what he believes are acceptable and unacceptable outcomes for the case affect reorganization negotiations. This implies that a bankruptcy judge must either be an expert in valuation, or be able to make skilled use of outside experts and the market for corporate control. Outside experts can furnish an independent assessment of the firm's prospects, but players in the market for corporate control provide a more credible valuation because they are willing to "put their money where their mouth is." A judge's biases, errors or misperceptions about a firm's prospects can be extremely costly.

In Eastern Airlines' case, we find evidence consistent with the hypothesis that information and agency problems associated with Chapter 11 resulted in substantial value decline. The evidence also supports the proposition that the judge's assessment of Eastern's prospects played a critical role in this outcome. As we describe below, initially, information problems led to uncertainty about whether to shut down Eastern. Later, as it became apparent that Eastern was not economically viable, agency problems and conflicts of interest dominated. The judge chose to support management in its efforts to revive the airline and its unwillingness to look for a buyer. He granted managers the right to use asset sale proceeds (technically held in escrow for creditors) to continue to fund operations. In doing so, he undermined the claims of unsecured, and to a lesser extent secured, creditors through court-sponsored asset stripping.

The judge's apparent bias or error also influenced negotiations in a counter-productive way, at least ex post. Claimants attest to accepting the judge's view of Eastern as a binding constraint. This caused them to advocate only reorganization strategies which they thought the judge would support. We conclude that Eastern is best described as either a firm in temporary decline turned into a firm in permanent decline, or a firm in permanent decline whose plight was worsened by information and agency problems that led to asset-stripping.

3. Eastern Airlines' Chapter 11

3.1. A Brief History

Founded in 1938, Eastern Airlines was an independent company until 1986, when it was acquired by Texas Air for $640 million. Eastern's routes were concentrated in the highly competitive east coast corridor. In addition, Eastern offered service to South America and the Caribbean. Frank Lorenzo was Texas Air's president and CEO. Lorenzo bought the small, troubled Texas Air in 1972. From that base he built a large airline holding company, acquiring in addition to Eastern, Continental, People's Express and Frontier Airlines. He developed a reputation as an effective union buster after Continental made a controversial "strategic" bankruptcy filing on August 24, 1983. That firm operated in Chapter 11 for two years, throughout which time management pressured striking workers to take pay cuts as large as 50%. Ultimately, Continental emerged from bankruptcy with a more competitive cost structure. Labor costs fell from 36% to 22% of operating costs.[3] AFL-CIO president Lane Kirkland dubbed Lorenzo "the Typhoid Mary of organized labor."[4]

In 1985, a year prior to the Eastern-Continental merger, Eastern was a large airline with lackluster performance. With $3.9 billion in assets, Eastern ranked third among U.S. airlines, behind United and American.[5] Continental ranked eighth with $2.0 billion in assets. Between 1985 and 1986, Eastern's performance declined, as did the performance of other U.S. airlines. Table 1 presents financial performance data on Eastern and the industry. From 1985 to 1986, Eastern's operating profit before depreciation fell 25%, from $527 million to $395 million. Net income dropped from $6.3 million to negative $131 million. (The decline in performance was not due to downsizing since total assets increased 18% from $3.9 billion to $4.6 billion.) During the same

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3 *Notable Corporate Chronologies*, Gale Research, Inc.

4 "Eastern Airlines; Terminal?" *The Economist*, March 11, 1989, American Survey, p.26.

5 At that time, United Airlines was the largest airline with $7.8 billion in assets and American Airlines was second with $6.4 billion. Based on revenues as a measure of size, Eastern and Continental were also the U.S.'s third and eight largest airlines with revenues of $4.8 billion and $1.9 billion, respectively. (Data from COMPUSTAT.)

period, Eastern's operating profit before depreciation as a percentage of total assets fell from 13.6% to 8.6%. The same measure for the industry fell from 13.2% to 6.0% on average, and 12.5% to 9.5% at the median. In 1986, Eastern's performance was around the middle of the pack. Of its 13 Compustat competitors, five performed more poorly than Eastern.

As part of Texas Air, Eastern's performance relative to the industry deteriorated. By 1988, only Braniff under-performed Eastern. Its operating income declined to $112 million, and the company incurred a net loss of $335 million. Eastern's operating profit before depreciation as a percent of total assets was 3%, while the average and median for the industry were 10.5% and 12.4%, respectively.

Eastern's history of high wages and poor labor relations contributed to its poor performance. Shortly before the merger, Eastern's management threatened to file for bankruptcy protection if employees refused to take a wage cut. The company did not follow through on its threat, but tension continued to escalate. After the merger, Lorenzo's history of union busting increased the already present labor-management animosity. It culminated in a strike by Eastern's machinists on March 4, 1989. The pilots and flight attendants, who were also unionized, refused to cross the picket line, crippling the firm's ability to operate. Five days later, on March 9, 1989, Eastern filed Chapter 11.

To continue operating during the strike, Eastern hired non-union replacement workers at greatly reduced wages. For example, replacement pilots were paid $27,500 per year—62% less than the $72,000 average union pilots made at Eastern. Replacement ramp workers made two-thirds less than the unionized wage ($5 versus $15 per hour).[6] These data provide an anecdotal indication of the wage premium Eastern paid over market rates. We present more systematic evidence on Eastern's labor cost structure later.

Eastern chose to file its Chapter 11 petition with the Federal Court of the Southern District of New York. Because it was a Delaware corporation and Miami was its principal place of business, it could only file in New York by attaching its case to that of a wholly-owned New York subsidiary

6 "Eastern Airlines Brought Down by Strike So Bitter It Became a Crusade," by Agis Salpukas, *New York Times*, January 20, 1991.

Ionosphere, which ran travel lounges at various airports. Although Ionosphere was an insignificant part of Eastern's operations—its $1.9 million in assets were less than 1% of Eastern's total assets—Eastern was legally entitled to have its case heard in the New York courts.[7]

Eastern's decision to file in New York is consistent with the extant evidence that large firms prefer this jurisdiction. Weiss (1990) documents that although the U.S. has 93 bankruptcy court districts, between 1979 and 1986, 30% of bankrupt New York and American Stock Exchange firms filed in New York. He also shows that violation of the strict priority of claims is the norm for New York bankruptcies. LoPucki and Whitford (1991) report that bankrupt firms strategically select filing districts, presenting evidence that firms seek to "avoid districts that are hostile to extensions of [management's right of] exclusivity, or that aggressively regulate attorney's fees." In fact, the judge assigned to Eastern's case, Burton Lifland, had a reputation as a pro-debtor judge. A *Forbes* magazine article entitled, "A bankrupt's best friend," described Lifland as a judge who "believes that when Congress...reformed Chapter 11, it wanted to give high priority to keeping bankrupt businesses going rather than having them liquidated for the benefit of creditors. ...Lifland's pro-debtor reputation is so widespread that companies which want to stiff their creditors are know to 'forum shop' to get their cases before him." (Lubove (1991)).

Eastern's choice to file in New York set the stage for events that unfolded during its Chapter 11. The court extended management's exclusive right to file a reorganization plan until February 20, 1990—almost a year after the Chapter 11 filing. Management proposed three plans during this period. None of the plans came to a vote because severe operating losses quickly made it clear that the plans weren't viable. On January 19, 1991, 22 months after filing Chapter 11, Eastern Airlines ceased operations. On December 22, 1994 a plan of reorganization was confirmed by the court. However, as of this writing the case remains open pending the resolution of several lawsuits. The five years that lapsed between Eastern's strike and the approval of its reorganization plan

[7] Several other major bankruptcies ended up in the Southern District of New York in a similar fashion. For example, LTV attached itself to Chateau Grey Realty Co., and Johns Manville attached itself to Manville Sales Corp.

greatly exceeds the average time from the first sign of distress to reorganization documented by Gilson, Lang and John (1990).

3.2. Data Sources and Collection Methods

Data on Eastern Airlines' and its bankruptcy were gathered from COMPUSTAT, financial statements, the financial press, bankruptcy court documents, and interviews with creditors, lawyers, competitors, and other individuals involved in the process. Security prices used in our analysis were obtained from the *Wall Street Journal*, Merrill Lynch High Yield Research, Salomon Brothers High Yield Trading Group, and CRSP. Data on the market price of aircraft were obtained from Pulvino (1995).

Occasionally we use individuals' words to communicate how and why events in Eastern's bankruptcy unfolded as they did. These statements provide verifiable data on views of how information problems and conflicts of interest affected Eastern's value. To ensure integrity of the data collection process, interviewed parties reviewed their quotes to correct inaccuracies, but agreed not to dictate the substance of our analysis or conclusions. It was also understood that parties could choose to be anonymous to avoid potential damage to their firms or their clients' position.

4. Claimholders, Recovery Rates, and Firm Value

Assessing the efficiency implications of Eastern's bankruptcy requires estimates of firm value prior to and following its Chapter 11 filing. Once such estimates are made, the bankruptcy can be analyzed and changes in value tied to events as they unfold. This section provides the foundation for our analysis by examining claims made against Eastern and payouts to claimholders. These data are then used to estimate the change in Eastern's value over the course of its bankruptcy.

Before continuing, it is important to note some limitations of our data. It is not possible to obtain precise information on all claims and their payouts and recovery rates. To our knowledge, there is no source that accurately reports payouts throughout the course of the bankruptcy. Reports filed with the court provide interim information, but are not always consistent with one another. Major participants in the bankruptcy provided us with additional information and reviewed our table for overall accuracy, but their information is also incomplete. Also, many claims subject to litigation were settled out of court and some lawsuits remain unsettled. When possible, we include legal settlements in payouts and recovery rate computations. When information is sketchy or estimates are made, table footnotes explain the details.

Because we cannot determine the precise timing of payouts, we do not adjust for the time value of money. Also, when a claimant is classified as legally unimpaired, we report a 100% recovery rate. Therefore, when a claimant is economically damaged by delay in payment or deterioration in value of returned collateral it does not show up in our data. Both these factors serve to overstate the value of payouts relative to claims, and thus bias our estimates of the value recovered by Eastern's claimants upward. For example, unsecured creditors did not receive their first distribution until early 1995, so the net present value of their payout was substantially less than the dollar amount they received. In addition, many secured creditors reported that equipment was returned to them in poor or damaged condition.

4.1. Claims Against Eastern

At the time of its Chapter 11 filing, Eastern faced over $3.7 billion in claims from secured and unsecured claimants.[8] Table 2 summarizes claims against Eastern and the payouts and recovery rates to date. The sum of fixed claims against Eastern and our estimate of the market value of its equity is almost $5 billion. About 32% of Eastern's claims were secured. If accrued interest is included, secured claims totaled $1.5 billion or over 40% of fixed claims. Eastern's capital lease obligations were also secured and totaled $674 million. The remaining $1.6 billion in fixed claims were made by unsecured claimants. They included trade creditors, subordinated noteholders and debentureholders, the Pension Benefit Guarantee Corporation, and retirees entitled to healthcare coverage.

[8] Reported claims against Eastern sometimes run as high as $13 billion. These include redundant claims that were later eliminated or reduced via negotiation, and the maximum dollar claims against Eastern in various lawsuits. Our analysis excludes redundant claims and other claims disallowed by the court.

In addition to fixed claims, Eastern had common and preferred stock outstanding. The preferred stock had four series with a book value totaling $613 million. Only one preferred series had regularly available market prices, so to estimate the market value we multiplied the market-to-book ratio of this issue to the book value of the remaining issues. The resulting estimate of the market value of Eastern's preferred stock at the time of its Chapter 11 filing is $351 million..

Because Eastern's common stock was not publicly traded, we estimate its value using post-Chapter 11 acquisition offer prices. (We discuss the details of these offers later in more detail.) Clearly, acquisition offer prices are not the same as market trading prices. They will include a control premium (or discount in fire sale situations) and, like market prices, an estimate of anticipated value change in Chapter 11. Nonetheless, they are objective third-party valuations and so provide useful information for our purposes. Adding the $464 million offered by Peter Ueberroth (the former U.S. baseball commissioner) in his failed post-Chapter 11 attempt to purchase Eastern's common stock (excluding the East Coast Shuttle), and the $356 million Donald Trump paid for the Shuttle, we arrive at an estimate of $820 million for the value of Eastern's common stock. To the extent our estimate includes an anticipated value decline or a fire sale discount, our calculations will understate Eastern's value decline due to financial distress. To the extent it includes an unrealized control premium, our estimate of value decline will be overstated.

4.2. Payouts and Recovery Rates

Cash payouts to Eastern's claimholders and debt forgiveness due to the return of collateral totaled $2 billion. Overall, Eastern's secured creditors fared well. With the exception of the certificate holders, secured creditors received repayment in cash and/or the return of collateral and were considered unimpaired. This is larger than average Chapter 11 recoveries by secured creditors of 60% to 80% documented by Franks and Torous (1989) and Weiss (1990). First equipment certificate holders were also unimpaired, while second and third certificate holders recovered 60% and 6%, respectively.

Unsecured creditors experienced an overall recovery rate of 11.2% of the value of their claims. The Pension Benefit Guarantee Corporation experienced the largest recovery because it received a cash settlement of $30 million in addition to a $565 million general unsecured claim that paid 11%. Most of Eastern's remaining unsecured creditors received an 11% payout. Convertible subordinated debtholders received a 6% recovery because they agreed to convert their securities in exchange for a $139 million unsecured claim (11% payout) and preferred stock (0% payout). Healthcare claimants received only an 8% payout, and government imposed fines and penalties totaling $50.5 million remained unpaid. Eastern's equityholders received nothing. This stands in sharp contrast to the typical outcome of a large Chapter 11 in which stockholders retain some stake in the reorganized firm.

The distribution across claimholders reflects a violation of absolute priority between secured and unsecured creditors. Specifically, distributions were made to Eastern's unsecured creditors even though second and third equipment certificate holders were impaired. This is consistent with evidence from large sample studies of U.S. bankruptcies, which document violations of absolute priority in most reorganization plans.

An examination of the details of the case indicates that the second and third certificate holders had insufficient collateral to ensure repayment. In addition, their lawyers failed to file a request for priority over unsecured creditors to cover collateral deficiencies. (Other secured creditors did this successfully, and second and third certificate holders sued their lawyers over this issue.) As a result, these certificate holders received unsecured claims to cover their collateral shortfall. The payout on these unsecured claims went largely to second certificate holders. This occurred for two reasons: i) because second certificate holders' claims were superior, and ii) because the third certificate's indenture included a provision requiring them to turn over any funds recovered from unsecured claims to second certificate holders until they were paid in full. As there was substantial overlap in the identity of second and third certificate holders, this arrangement was agreeable to many parties, and explains the 6% recovery rate for third certificate holders.

4.3. Eastern's Value Decline During Chapter 11

To measure Eastern's value decline during bankruptcy, we subtract $2 billion from estimates of the company's value at its Chapter 11 filing date. Two billion dollars is the total of the $867.7

million cash payout to Eastern's claimholders and the $1,137.8 million in debt forgiveness due to the return of collateral to secured creditors.[9] Table 3 presents five estimates of Eastern's value at its Chapter 11 filing. Each is computed based on alternative data sources or under different assumptions. The value estimates range from $4.9 billion to $3.5 billion. This yields measures of Eastern's value decline ranging from $2.9 billion to $1.5 billion.

Our first two estimates of Eastern's value are probably too high: $4.9 billion is the sum of the total fixed claims against Eastern and our estimate of the market value of Eastern's equity, and $4.7 billion is the sum of Eastern's long term liabilities and our estimate of the market value of Eastern's equity. The third estimate, $4.4 billion, is the fair market value of Eastern's assets as estimated by Merrill Lynch's Capital Markets Fixed Income Research Department when Eastern filed Chapter 11.[10] The fourth estimate, $3.8 billion, is the total of the fixed claims against Eastern reported in Table 2. The final and lowest estimate, $3.5 billion, is Eastern's total long-term liabilities. This estimate assumes that $0.3 billion of the fixed claims against Eastern were invalid, and that the value of Eastern's equity was zero.

Before proceeding, it is useful to note that the decline in Eastern's value *cannot* be attributed to the direct costs of bankruptcy. Professional fees charged by lawyers, accountants and investment advisors totaled $114 million or 3.5% of Eastern's $3.3 billion in 1989 assets.[11] The total dollars are only a small fraction of Eastern's lost value. Fees as a percent of total assets are in the range typical of large U.S. bankruptcies as documented in such studies as Warner (1977), Weiss (1990) and Tashjian, Lease and McConnell (1996).

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9 It unlikely that creditors receiving returned collateral were economically unimpaired. For example, because Eastern failed to maintain planes as dictated by the terms of its capital leases, lessors had to make major repairs on many planes to bring them to flying condition. They received a small legal settlement that covered about 20% to 25% of these additional costs.

10 Merrill Lynch High Yield Securities Research, 1989, "The Airline Industry," page 33.

11 "A Billion Later, Eastern's Finally Gone," Lisa Gibbs with Amy Boardman, *American Lawyer* Newspaper Groups, February 6, 1995.

Based on the evidence presented above, it is clear Eastern lost a substantial portion of its value during Chapter 11. What is not clear is why. There are a number of alternative explanations including bad luck, bad management, and poor adjudication of the bankruptcy. In the next section, we shed light on the plausibility of these alternatives by analyzing critical events over the course of the bankruptcy and the state of the airline industry.

5. Analysis of Eastern's Value Decline

To provide insight into the causes of value decline during Eastern's bankruptcy, we analyze two bodies of evidence. First, we provide evidence consistent with asset stripping by examining the allocation of asset sale proceeds between debtholders and operations. We find that Eastern distributed only 38% of its asset sale proceeds to debtholders. The first significant bondholder distribution was not made until after the shutdown. We then analyze how industry conditions affected Eastern's performance during bankruptcy. We find that although this period was a difficult one for U.S. airlines, industry conditions do not explain a large portion of Eastern's decline in value.

5.1. Asset Stripping: Using Asset Sale Proceeds to Fund Operating Losses

Between the time Eastern filed Chapter 11 and ceased operations, the company raised $1.8 billion through asset sales. Assets sold included routes, gates, planes, engines and spare parts. Following its shutdown, Eastern continued to sell assets. By the end of 1992, additional asset sale proceeds totaled $375.3 million and the company had only five remaining aircraft. Between 1993 and 1995, Eastern sold another $86.3 million in assets, including its final plane. As of the end of 1995, Eastern's cumulative asset sales totaled $2.308 billion.[12] Recall that cash payouts to claimants

[12] For our purposes in analyzing Eastern's asset sales, the critical issue is not whether management sold assets at fire sale prices, but the use of proceeds from asset sales to fund operating losses. However, it is worth noting that Pulvino (1995) finds that Eastern's post-Chapter 11 aircraft sales average a 12.8% discount from the market price. Of the 73 transactions for which he has reliable data, 64 are for narrow body aircraft. These aircraft are fairly liquid and the discount from market in these sales averaged 7.7%. For the nine wide-body sales, the discounts were substantial, averaging 49.1%. According to Pulvino these aircraft (Lockheed 1001s) were very illiquid aircraft.

totaled \$867.7 million (see Table 2). The difference—over \$1.4 billion—went to fund losing operations prior to shutdown, and then to cover costs associated with additional asset sales, shutdown and liquidation.

Table 4 presents evidence on how funds from Eastern's asset sales were distributed until Eastern's shutdown. The proceeds of Eastern's asset sales were deposited into escrow accounts to be held on behalf of creditors. The court administered withdrawals from these accounts, and could, when it chose, allow management to make withdrawals to fund operations. Of the \$1.8 billion in asset proceeds generated prior to shutdown, \$1.7 billion was deposited into escrow accounts.

The judge approved the release of 54% (\$928.2 million) of the \$1.7 billion in escrow funds to support operations. His stated objective was to keep Eastern flying while management revitalized its operations. (We examine the plausibility of this later.) In 1989, the judge released \$210 million for working capital purposes. No distributions were made to creditors. In 1990, an additional \$475 million was released to managers. That year creditors received a small payment of \$38.2 million. In early 1991, Eastern ran out of cash and could no longer operate. The judge allocated an additional \$197.7 million to fund the liquidation of remaining assets. Eventually, 40% (\$682.7 million) of Eastern's pre-shutdown escrow funds were distributed to secured creditors. However, no significant creditor distribution was made until January 24, 1991—about a week after the shutdown.

Clearly, the cash infusions from escrow failed to revive Eastern. Between the Chapter 11 filing and shutdown there was not a single month in which Eastern lost less than \$20 million. Cumulative operating losses totaled almost \$1.3 billion.[13] To the extent the losses were not purely wealth transfers, they represented the destruction of value. Recall that although many airlines struggled during this period, Eastern under-performed all but Braniff (see Table 1). Thus based on a cursory look, it seems difficult to attribute Eastern's losses solely to a weak industry. Rather, it appears that managers and the court engaged in asset stripping by investing bondholders' escrow

[13] The \$1.3 billion in operating losses reported in this section cannot be computed directly from Table 1 because data here are based on actual monthly cash flow statements reported to the bankruptcy court. Table 1 numbers are annual operating losses as reported in Eastern's financial statements.

funds in a negative net present value project—Eastern's operations. In the next section, we subject this possibility to scrutiny by examining how industry conditions affected Eastern's performance.

5.2. The Effect of Industry Conditions on Eastern's Performance

5.2.1. Industry-Adjusted Operating Performance

Eastern's poor post-Chapter 11 operating performance explains a substantial portion of the company's value decline. However, weak industry conditions prevailed during the period Eastern was in Chapter 11. Determining the extent to which Eastern's poor performance was due to Chapter 11 requires estimates of Eastern's industry-adjusted performance. To construct such estimates, we collect operating performance data for thirteen large, publicly traded U.S. Airlines from *The Aviation and Aerospace Almanac*. This source provides detailed data on three major categories of operating costs: labor, fuel and other operating costs. Other operating costs include passenger food, advertising and promotion expenses, landing fees, rental payments, maintenance expenses, and interest expense. For each year 1987-1990, we estimate the average industry cost structure by computing the mean of each operating cost category as a percentage of operating revenue.

We estimate Eastern's industry-adjusted performance using its actual operating revenues and estimating operating costs "as if" it had the average industry cost structure. Table 5 presents our findings. (More detailed data are presented in Appendix A.) Panel A shows that over the two years prior to Chapter 11, Eastern accumulated operating losses of $150.6. Under the average industry cost structure, Eastern would have earned an operating profit of $348.7 million. The $499.3 million difference between actual and "as if" operating profit can be interpreted either as the amount by which Eastern's costs exceeded industry norms given its operating revenues, or the dollar revenue increase required for Eastern to earn an average operating profit. For 1987-1988, the $499.3 million implies that Eastern would have experienced average operating profit with 5.9% more in operating revenues.

Panel B of Table 5 compares Eastern's cost structure to the industry average. The data support the claim by Lorenzo and others that Eastern's labor costs were out of line with the industry.

This is particularly true of maintenance labor. Operating with average industry labor costs would have increased Eastern's operating profit by $554.4—enough to cover its operating loss almost three times. Although Eastern's maintenance labor comprised less than 4% of total costs, and less than 10% of labor costs, it was $179.5 million greater than the industry average—enough to cover the company's $150.6 million operating loss in 1987-1988. In both the fuel and other cost categories, Eastern's costs as a percent of operating revenues were less than the industry average.

During the two years following the Chapter 11, Eastern's performance deteriorated relative to the industry. The fact that the industry was not doing well is reflected in the "as if" estimate of Eastern's operating profit. Operating at the average cost structure, Eastern would have experienced an operating loss of $13.8 million in 1989-1990. However, the estimated loss pales in comparison to Eastern's actual $1.398 billion operating loss. Holding its 1989-1990 operating costs constant, Eastern would have required 37% more in operating revenues to achieve average profitability.

While labor costs continued to contribute to Eastern's difficulties, post-Chapter 11 maintenance labor was much closer to the industry average. Total labor costs exceeded the "as if" industry average by $355.2 million, of which only $7.7 million represented excess maintenance labor costs. Post-Chapter 11, the bulk of Eastern's troubles appear to reside in the "other operating costs" category. Relative to the industry average, Eastern spent an excess of $879.0 million in this area. Examining the details of costs in the "other operating costs" category reveals that the dollar amount of Eastern's spending declined dramatically. Unfortunately, the decline in operating costs was not sufficient to offset Eastern's precipitous drop in operating revenues.

The evidence is consistent with massive value destruction and the transfer of wealth from financial claimholders to other "stakeholders." The excess in "other operating costs" is evidence of either an inability to cut operating costs quickly enough, or of spending to support revenues that never materialized. In fact, between 1988 and 1989, Eastern's operating revenues dropped 60%, while operating costs dropped only 41%. "Other operating costs" was the laggard, dropping only 31%. Between 1989 and 1990, Eastern's revenues increased almost 41%, but the revenue increase was not sufficient to compensate for Eastern's bloated cost structure.

5.2.2. Security Returns for Eastern and the Industry

To further examine the effect of industry factors on Eastern's performance, Figure 1 presents a graphic of an index of returns to Eastern's 4.75% Convertible Subordinated Debt—the publicly traded unsecured debt security with the most complete price series. These debentures were considered junk bonds several years prior to Eastern's Chapter 11.[14] We examine returns to unsecured debtholders because they are publicly traded, and are likely Eastern's residual claimants. We also present an industry index of bond prices, an industry index of stock prices, and an index of market prices for narrow body aircraft.[15] Each index is computed weekly and is the value of $1.00 invested on March 6, 1989 (three days prior to the Eastern strike) through Eastern's shutdown on January 19, 1991. The index for aircraft prices is computed similarly, but only quarterly data are available.

As Figure 1 illustrates, Eastern's bonds outperformed industry bonds and stocks from the Chapter 11 filing date through late 1989. These returns reflect initial optimism about the possibility of a reorganization or restructuring plan that preserved value. In January 1990, the company's bonds began to lose value. The drop in aircraft prices probably explains at least part of this value decline since Eastern engaged in major asset sales during this period. Between the last quarter of 1989 and the first quarter of 1990, the aircraft price index dropped 24% (from 1.10 to .83) and Eastern's bond price index fell 44% (from 1.48 to .82).

But while aircraft prices subsequently rebounded, Eastern's bonds did not. With the exception of a brief period in March 1990, Eastern's bond value fell steadily from early 1990 until, by the time Eastern ceased operations, these bonds lost 96% of their value. Industry bond and stock indices declined relatively slightly.[16] During this period, both Eastern's bond price and other airlines' stock

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14 In 1987, Moody's rated them Caa. The agency lowered the rating to Ca in 1988.

15 The price index for wide body aircraft follow a similar pattern (Pulvino (1995)).

16 Because the stocks of firms in distress are often delisted, a potential concern is an upward bias in the industry stock index. In fact, the only equity to cease trading during this period was Braniff which filed Chapter 11 in September 1989. The returns to other major carriers who filed Chapter 11 after Eastern (Pan Am, American West, and TWA) are included in the index.

price performance were potentially confounded by the effects of pre-Gulf War activity. Eastern did not experience the Gulf War's full effect on the airline industry as it ceased operations two days after the air war began. In fact, prior to the Iraqi invasion of Kuwait, Eastern's cumulative bond return was almost -68%. From the week prior to Iraq's invasion of Kuwait on August 2, 1990 to the week of Eastern's shutdown, the airline stock index dropped 17% from .69 to .58. During the same period, Eastern's bonds dropped by 87% (the index dropped from .33 to .04).

Industry conditions clearly diminished Eastern's performance. Our analysis, however, indicates that the majority of its value decline cannot be attributed to a weak industry. This finding points to bad management and poor adjudication of the Chapter 11 process. Below we examine evidence bearing more directly on these issues by analyzing the role information problems and conflicts of interest played in the outcome of Eastern's Chapter 11.

6. The Role of Information and Agency Problems in Eastern's Value Decline

In this section, we examine the role of information problems (concerning whether Eastern was best operated or shut down), and agency problems (the conflicts of interest between both the unions and Lorenzo, and unsecured creditors and managers) in Eastern's value decline. We do this by analyzing major events during the bankruptcy and, where relevant, their effect on the value of Eastern's convertible unsecured debentures. To help document the effect of information and agency problems on value, we rely on the perspectives of various participants in the bankruptcy process.

Our evidence is consistent with information that surfaced early in the bankruptcy. Creditors' initial support for management's reorganization efforts is consistent with their positive returns during this period. As the case progressed, a consensus emerged among creditors that the firm should be shut down, its assets sold, and the proceeds distributed to creditors. The judge and managers (later the trustee) disagreed, and continued to operate the airline. Then, severe, persistent agency problems arose that contributed to Eastern's value decline. While the struggles destroyed value, it is not possible to "blame" any particular constituency with a strong degree of conviction. Rather, Chapter 11's rules of the game led various groups, acting in what they perceived as their best interests, to make decisions that resulted in undesirable outcomes in terms of firm value and employment.

6.1. Conflict between Lorenzo and the Unions

The unions' primary goal, both in its strike and its failure to comply with the terms of Ueberroth's offer, appeared to be to punish Frank Lorenzo by forcing him to cede control of Eastern. The labor concessions Lorenzo won through Continental's bankruptcy threatened the national unions' ability to keep wages and benefits in the industry high. At the national level, it was in the unions' interest to make such "strategic bankruptcies" difficult, if not impossible. Thus, preventing Lorenzo from doing at Eastern what he did at Continental was critical.

According to several participants interviewed, both the national unions and Eastern's unionized employees were willing to devalue the airline to pressure Lorenzo into selling to employees or another "more suitable" buyer. Lorenzo asserted that the national unions wanted Eastern liquidated to serve as a warning to other airlines—take an aggressive stance against your unions and we will ruin the company. In either case, the unions' approach might be in its interest as the national representative of employees at many companies. It was not, however, in the interest of Eastern's unionized employees, at least ex post. For most Eastern employees, dramatic wage concessions at Eastern still would have left them earning more than they could elsewhere.

Because the unions held unsecured claims in the form of payroll, healthcare, and pension benefits, they were represented on the Unsecured Creditors Committee.[17] Their interests, however, were often quite different from those of other unsecured creditors. The following quotes, excerpted from comments made by a number of UCC members, reflect views on the unions' effect on UCC dynamics:

> —The thrust of the labor approach was to eliminate Lorenzo, and they were willing to do a Samson and pull the temple down on the employees to achieve their goal.

[17] According to several lawyers interviewed, unions are often included as members of the UCC when they are also large creditors.

> —You have to wonder whether the union representatives were defending their members or looking after the union hierarchy.
>
> —The unions were always against management, but they were willing to give wage concessions [to a new owner] to help the airline survive.
>
> —The problem with the unions was they were right 90% of the time, but they could never sway the committee. There were leaks to the press and the manufacturers did not want to align themselves with the unions. Also, most of the committee members could not stand the union representatives' lengthy, condescending oral viewpoints.

Union leaders were apparently willing to risk everything to get rid of Lorenzo. They worked to make him, not the airline's economic status, the primary issue. Employees were willing to publicly declare Eastern an unsafe airline, which may have contributed to the firm's decline in value. A former non-union employee of Eastern Airlines noted the bitterness of the unions towards Lorenzo:

> The unions waged an all-out campaign against Lorenzo. No other labor conflict has ever had employees going out and asking the public to stop supporting the business which provided their paychecks. Pilots would testify to Congress about how unsafe the airline was, scaring the public, and then fly home on Eastern. The press is accountable for not accurately disclosing the events. Congress is accountable for supporting the unions to get their political action committee money. And the union leadership is accountable for playing a cruel hoax on the employees by telling them that Frank Lorenzo was the issue and his disappearance was worth risking their jobs.

From the beginning, the unions pushed to have Lorenzo replaced with a trustee. They were pleased when Martin R. Shugrue was appointed. At that time, Charles Bryan, leader of the International Association of Machinists, believed the company could survive. He commented that there would be tremendous "sacrifices over the next year, maybe two years or more, to bring us back to normalcy."[18] Unfortunately, normalcy never returned to Eastern. In fact, the machinists didn't end their strike until January 28, 1991—a week after Eastern shut down. Even at that point, hostility toward Eastern persisted. A newspaper account reported, "as word filtered out Friday night that Eastern Airlines would shut, some members of the machinists union, which has been striking the company since March 1989, rejoiced."[19] It is hard to believe that such a celebration was justified in terms of the individual machinists' pecuniary self-interest.

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[18] "Eastern's Fate Now with Trustee," by Agis Salpukasm, *New York Times*, April 20, 1990.

[19] "Eastern Airlines Brought Down by a Strike So Bitter It Became a Crusade," Agis Salpukas, *The New York*

6.2. Conflict between Unsecured Creditors and Management

The members of Eastern's UCC represented all unsecured creditor groups (two suppliers, five manufacturers, five unsecured bondholders, and four employee groups). In documenting the conflict between the UCC and management, we present data on Eastern's bond returns in response to various events in the bankruptcy. Unfortunately, data limitations prevent us from conducting a conventional daily event study. Thin, and sometimes infrequent, trading in Eastern's 4.75% subordinated debentures results in an incomplete daily return series. The almost continual release of new information about the case makes it impossible to isolate the effect of specific events. Instead, we present returns for discrete periods during the bankruptcy process. The periods are constructed based on major shifts in the direction of the proceedings. In addition to cumulative bond returns, we report operating profitability data for each period. Table 6 presents our findings. (Appendix B presents a detailed chronology of events in Eastern's bankruptcy and the associated bond returns. When a bond return is not available for a particular event date, we use the return through the closest date that does not overlap with another event. Events where the nearest available date is more than three trading days away are marked with an asterisk.)

6.2.1. Stage 1: Information Problems Concerning Eastern's Viability

Chapter 11 Filing through the Ueberroth Offer. With the exception of union representatives, committee members supported management during the early months of the bankruptcy. At that time, they believed in management's ability to revive the company. This is reflected in positive bondholder returns beginning around the time of Eastern's Chapter 11 filing on March 9, 1989. On March 6, 1989, just prior to the strike, Eastern's bonds traded at $42. The next reported price was $45 on March 30, 1989.

Within a month of Eastern's bankruptcy filing, Peter Ueberroth offered to purchase the airline's common stock for $464 million. Six days later, he withdrew his offer. From the Chapter 11 filing through Ueberroth's offer, bond prices jumped to $63, representing a 50% return. On the

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Times, January 20, 1991.

day the offer fell through bond prices dropped 14.3% to $54. The cumulative return from the pre-strike price remained a positive 28.6%.

Ueberroth's offer was contingent on the unions ending the strike and agreeing to wage and benefit concessions by April 12, 1989. On April 11, 1989, the unions agreed to a five year contract that included $210 million in concessions. They refused, however, to return to work as long as Lorenzo ran the company. Lorenzo refused to cede control of the company until the deal was finalized. Ueberroth required two weeks to undertake his due diligence process, including an assessment of whether customers would return to Eastern after employees returned to work. Union resistance persisted despite Lorenzo's immediate offer to run the company jointly with Ueberroth. Reports indicated that the machinists' union worried that if they went back to work and the deal fell through, the pilots' union wouldn't support a second strike. The standoff over the two week interim period broke the deal.

Management's First Reorganization Plan. Shortly after the Ueberroth deal's failure, Texas Air announced it was not interested in selling Eastern. It planned to restructure the company, sell assets and operate a smaller airline. On April 24, 1989, Eastern presented its first plan of reorganization to the Unsecured Creditors' Committee (UCC). The plan promised $1.8 billion in asset sales including 40% of the company's aircraft, and full repayment of secured and unsecured creditors. Bond prices rose to $65.5 during this period—a 21.3% return from Ueberroth's withdrawal and a 56.0% return over the course of the case.

According to Lorenzo, after operating a few months in bankruptcy, managers realized they had been overly optimistic. Eastern's operating performance continued to deteriorate. As a result, tension on the unsecured creditors' committee escalated as claimants' interests diverged. On August 30, 1989, Eastern publicly announced its first plan was not viable. During the remainder of 1989, the judge allowed the firm to withdraw $210 million from escrow and granted management several extensions of its exclusive right to file a reorganization plan. By late December 1989, bond prices had dropped 10.7% to $58.5. Cumulative bond returns, however, continued to be positive at 39.9%.

Management's Second Reorganization Plan. On January 25, 1990, Eastern presented a second plan promising full repayment to secured creditors and 50% repayment to unsecured creditors. Unsecured creditors would receive half cash and half in new notes. A month later, Eastern announced it could not meet the terms of this plan and proposed an alternative that paid unsecured creditors 25% with only 5 cents in cash. The UCC rejected this proposal, threatened to request liquidation of the company, and pushed for the replacement of management by a trustee. During this period, bondholders experienced a 55.6% drop in price to $26. Cumulative returns from the time of filing totaled -38.1%.

Effect of extensions of management's right to file a plan. Creditors asserted that extensions of management's exclusive right to file a reorganization plan put them at a disadvantage in negotiations. A creditor lawyer explained:

> Extending the exclusive period makes it almost impossible to negotiate with a debtor. The debtor's strongest weapon is to delay. The time value of money will bring creditors to their knees, forcing them to capitulate.

In contrast, Harvey Miller, Eastern's lawyer and one of the country's pre-eminent bankruptcy attorneys, argued that judges extend the exclusive period because companies legitimately required more time to come up with a business plan:

> All of these Chapter 11 cases are fact driven, and all these businesses are different. What seems to develop in these cases is that the bankruptcy judge is probably the single most important person. Because the judge is going to evaluate the parochial decisions that are taken by various constituencies, the concept of delay really depends on him. There are cases which move very quickly in the appropriate circumstances depending on the business. I think there is no place for the statute to say what the exclusive period is. That should be left to the court.

Requesting a Trustee. Finally, creditors gave up on management and formally requested the appointment of a trustee. The following comments summarize UCC members' views of this period of the bankruptcy. They are consistent with an initial optimism concerning management's ability to revitalize Eastern that deteriorated over time. Unsecured creditors cited conflicts amongst themselves, loss of trust in Lorenzo's reliability, and industry conditions as factors leading to their request for a trustee. Some representative comments follow:

> — All the creditors were aligned at the start of the case when we were promised 100%. The committee stopped working together after four months when it became

clear we would not be fully paid. People started looking at their vested interests. Separate cohesive subgroups formed and there was inner turmoil. There were subplots like a mystery novel. It was extremely stressful. People got personally involved and forgot about their duties. We asked for a trustee in part to try and get our interests together.

—We initially viewed Frank Lorenzo as a savvy and knowledgeable airline executive who would be hard to replace, and no replacements were evident. Eastern's problems went back a decade and Lorenzo had success with Continental. But after being hit with a series of missed projections, we lost confidence in Lorenzo. He had reneged too many times.

—The reorganization process was going well and Eastern was ahead of its targets. Then Lorenzo started to believe his own press. He decided he didn't have to downsize the company, but could expand the Miami hub and hold onto the Latin American routes. The company bled huge amounts of cash before Lorenzo agreed to return to the initial plan. Then the market softened.

—Lorenzo did not act in bad faith with the various offers he made. He believed he could do it. It is a really tough industry, and Eastern was the first of a rash of airline bankruptcies. No one could have known it would get so bad.

In his ruling to appoint a trustee, Judge Lifland stated:

Throughout this case, Eastern has continually made operating projections which it has failed to achieve with the resultant losses being borne by unsecured creditors. ...By admission of the Chairman of the Board, Frank Lorenzo, these losses have wiped out the parent Texas Air's equity. The Debtor's inability to formulate a business plan and make operating projections which have a longevity of more than several months, along with continuing enormous operating losses being sustained by the estate, mandate that this Court order the appointment of a trustee for "cause, ...including incompetence."[20]

6.2. Agency Problems and Asset Stripping

The Appointment of a Trustee through Shutdown. Even prior to a trustee's appointment, the judge and the UCC disagreed about the trustee's role. The UCC specifically requested a trustee who would continue to run the airline while trying to find a buyer. Lifland, however, had vowed early on "to keep Eastern in the air and thus serve the flying public's interest. ...He suggested creditors needn't ask for liquidation. Hell or high water, he wanted those planes up..." (Galen (1990)). During discussions concerning a trustee's appointment Judge Lifland was adamant that "any trustee would be charged with continuing to operate the airline, rather than slowly liquidating it." (O'Brian (1990)).

[20] Bankruptcy document docket #2670, April 19, 1990.

On April 19, 1990, the court appointed Martin R. Shugrue as trustee. Shugrue began his career in the airline industry in 1968 as a pilot and flight engineer for Pan Am, eventually rising to chairman. He left Pan Am in 1988 after a management shake-up and worked for a year as president of Continental Airlines under Lorenzo. The UCC knew the trustee would try to operate the airline for some period but, based on their interactions with him prior to his appointment, believed he was agreeable to selling Eastern or shutting it down. A UCC committee member commented:

> The committee wanted someone who would conduct a sale or other disposition of the airline. Shugrue asked the committee for a couple of months to try and save the airline. The committee agreed because they believed Judge Lifland would give it to him anyway.

Alan S. Boyd, Chairman of Airbus Industrie of North America, Inc., which was both a secured and unsecured creditor and a member of the UCC, described the initial meeting between the UCC and the trustee:

> The committee met with Shugrue before his approval. We asked him for an assessment of Eastern Airlines. He said he did not believe it had a future as an independent entity. He said he would try to improve morale, stabilize operations, and then sell the company in whole or in part. We agreed to put on a brave face to improve morale.

Unfortunately for the UCC, both Shugrue and Lifland focused on resurrecting the ailing airline. (Lawrence (1993) and court documents). When Shugrue was appointed, the judge allowed him to withdraw $80 million from the escrow account to fund operations. In response, the bond price dropped by 23.1% in just under one week, to $20.

As the trustee continued to operate the airline, and the judge continued to release funds from escrow, their relationships with the UCC deteriorated further. UCC members commented:

> —After two months it became apparent that the committee had made a mistake about Shugrue. Shugrue had given his word that if he couldn't turn the airline around in two months he would shut it down. [Shugrue denies he made such a statement.] It was six weeks before Shugrue met with creditors. He said he was too busy. He seemed to forget it was the creditors' money. He has an incredible ego, he believed he could turn Eastern around and be another Lee Iaccoca.
>
> —Unfortunately, both the judge and the trustee fought the creditors' committee on every issue. We would do our due diligence and the trustee would tell us we did not understand the business.

By this time, the UCC was adamant about shutting down Eastern. They felt, however, that they couldn't act openly because they were trapped in a Catch-22 situation. Creditors wanted to buy time to preserve the ability to sell the airline and its assets, but they knew the trustee was not co-operating and that the judge would support his position. If they publicly expressed their views, people might stop flying Eastern and the losses (funded with creditor money) would increase. Also, UCC members had signed confidentiality agreements, and so risked being sued for going public. Members of the committee explained:

> —The trustee and the judge were clearly out of line. The pure math showed the company could not survive, and the judge's and trustee's responsibilities were to the creditors. The trustee was working for his own agenda. He enjoyed the visibility and the money.[21] We went on record complaining to the judge that the trustee was spending funds on items without getting the committee's approval, but the judge allowed it. The judge believed he was protecting the public by keeping the airline flying. We told the judge he was deceiving the public by implying the airline would exist for another year when we all knew it wouldn't.
>
> —We told the judge that we were convinced that the estate was in jeopardy of being administratively insolvent. The judge castigated us for having the audacity to complain and threaten Eastern's survival.
>
> —In the beginning of October 1990, the creditors' committee finally told Shugrue that we would go public if he did not agree to sell the airline. We set up rules for how to proceed, and Shugrue agreed—providing there were no miracles to save the airline like Delta's pilots going on strike. At the end of the month the committee asked Shugrue for a shutdown plan, which had already been prepared under Lorenzo. Shut down plans are very sophisticated and need careful implementation to work. You can lose phenomenal amounts of money if it's not done right. Well, Shugrue told us lightning had struck and the company was turning around and had found a so-called expert to support his view. We did not accept his plan and asked him to shut the airline down, or we would go public with our views.

On November 9, 1990, Shugrue announced that Eastern's operations could generate positive cash flow by the first quarter of 1991, but it would require additional escrow funds. On November 14, 1990, the UCC responded by publicly announcing that it wanted Eastern liquidated. Shugrue objected and the judge ruled in his favor, allowing Eastern to continue operations.

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[21] Shugrue's compensation for serving as Eastern's trustee was initially $35,000 a month and was retroactively increased by the judge to $50,000 per month. The implied annual salaries of $420,000 and $600,000 are similar to the $531,000 salary of Delta's CEO. It would not be surprising if Shugrue made more than the CEO of a healthy airline. Gilson and Vetsuypens (1993) document that distressed firms often pay compensation premiums to attract talented managers.

To fund a "do-or-die" effort to revive Eastern, the judge released an additional $150 million from escrow. The UCC openly opposed the release of the $150 million. A creditor commented:

> When we lost the hearings there was extreme disappointment and dismay. There was also a strong inclination for mass resignations. Our lawyers advised us against it to prevent any further deterioration in the public perception. We did not want the judge to have a basis to come back at us for going public. So we were now worried about being sued—how ironic—so we shut up and tried to do what we could.

Shugrue implemented a new marketing program to attract business fliers by offering first-class seating for the price of a full coach fare. To accommodate the expected increase in first-class traffic, Eastern Airlines doubled the size of the first-class cabin on all its planes losing almost two coach class seats for each new first class seat. At the same time, Eastern lowered its coach fares at least 15% below its competitors' prevailing rates.

The UCC had little hope that Shugrue's new strategy for Eastern would be successful. To turn Eastern around, the trustee's strategy required revenue increases that the UCC thought were too high, and projected fuel prices they thought were too low. By this time, even Lorenzo did not believe Eastern could operate as an independent firm. He stated:

> The problem with Eastern was the more it flew the more it lost. There were no business travelers, only low fare passengers. Eastern had no balance in its route structure. We were trying to scale back to 75 North-South flights and then blend it into Continental. The Atlanta hub would have worked very well in Continental. Fuel run-up was not the issue. Without some sort of a merger with an airline with a better route system, Eastern could not have survived.

To make matters worse, coinciding with Shugrue's change in strategy was the increase in oil prices associated with Iraq's invasion of Kuwait.[22] Shugrue dismissed criticisms of his operating strategy as " 'Monday morning quarterbacking,' and [said] that the creditors were already getting so little that the attempt to keep Eastern aloft was worth the risk if it could save jobs." [23]

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22 Between July 17, 1990 and August 2, 1990, West Texas Crude spot prices rose from $18.30 to $21.20 per barrel. They continued climbing, with some fluctuations, to $40.85 on October 11, 1990. Prices didn't begin to fall until November 1990 when they returned to the low $30's.

23 "Eastern: The Wings of Greed," Aaron Bernstein, Michael Oneal, and Gail DeGeorge, with Seth Payne, *Business Week*, November 11, 1991.

Shugrue's strategy generated operating losses totaling $442 million in less than eight months. Finally, on January 19, 1991 Eastern had insufficient cash to continue operations and the judge ordered the airline be shut down. By this time, bond prices had dropped to $1.875. This price signaled an expected recovery of less than 2%, which is close to the discounted value of the 6% these security holders received four years later. The total return during the trustee's management was -92.8%.

Effect on Competitors. Competitor airlines argued that the court's protection of Eastern forced losses on their firms.[24] This is consistent with evidence provided by Borenstein and Rose (1995). While their overall finding is that bankrupt airlines do not harm their competitors by reducing prices, Eastern is the exception. It is the only bankrupt carrier to have lowered prices after filing Chapter 11. A member of the committee explained:

> The judge would not listen to the creditors. He cost Delta, USAir, and other airlines hundreds of millions of dollars because they had to compete with Eastern. This is not capitalism. Lifland did whatever he felt like. He was a result-oriented judge, a dictator who rationalized whatever he did. It made me lose faith in the system. There were many times I asked myself whether I was in a court in Paraguay.

James Callison, Senior Vice President of Delta Airlines, made the following statement:

> The fares that Eastern employed as it attempted to reorganize in bankruptcy were below Delta's cost of doing business. ...Eastern was able to sustain such low pricing only because it was—improperly in my opinion—subsidized by the bankruptcy court. The court attempted to act as an arbiter of the "public interest" even though that was not its duty or right. This let Eastern use creditors' money to price below cost, which in turn, inflicted heavy losses on competing airlines, and in the end did Eastern no good. ...A weak carrier cannot provide healthy competition. It has to resort to below-cost pricing to keep cash coming in, and will always be looking for a handout. It is a wounded animal, and in that condition weakens all airlines operating around it, and, in the long term, hurts rather than helps competition.[25]

Shugrue responded:

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[24] We investigated the impact of events in Eastern Airlines' bankruptcy on the stock prices of Delta, American, United and USAir over three day windows. With the exception of the day Eastern shutdown, we found no significant movements. All four carriers experienced a sharp stock price increase at Eastern's shutdown. However, this event is confounded by a substantial drop in oil prices that occurred during the same period. Oil prices dropped from $32.50 per barrel on January 16, 1991 to $20.05 on January 18, 1991.

[25] Remarks of James W. Callison, Senior Vice-President of Corporate and External Affairs, Delta Airlines, before the Rockdale County Kiwanis Club, June 27, 1991.

> With respect to comments made by Delta and other carriers, those comments by definition are biased and should be noted as such. For purposes of Eastern's Chapter 11 case, it is irrelevant what impact Eastern's discounting had on Delta. The funds utilized to continue Eastern's operations were calculated to obtain a ridership sufficient to support a stand-alone operation.

After Eastern ceased operations, the UCC affected decision-making. Following the shutdown, Shugrue proposed selling Eastern's major assets at bid prices he received from other airlines totaling $155 million. The UCC requested a public auction. After a hearing on the matter, the judge decided to hold an auction on February 4 and 5, 1991. The auction generated $259 million, $104 million more than the trustee's offers.[26] A UCC member commented:

> We had to scramble to sell the perishable assets. The FAA has a rule that if airline slots are not used two thirds of the time over a 60 day period, the airline loses them. Once you shut down you have 20 days to sell them. Fortunately, we had prepared all the legal work in advance. We had also negotiated with other airlines, so we knew who wanted which slots and how much they would pay. The trustee came in with an offer for the slots. The committee told the judge it was tens of millions of dollars too low. Imagine, we were still banging heads with the trustee and the judge. Shugrue finally saw the writing on the wall and relented. We had an auction and saw a big time increase in the proceeds received for the slots.

As late as 1994, Shugrue came forward with a plan to keep what remained of Eastern flying. He proposed raising $100 million in equity and providing service to eight cities with Atlanta serving as the primary base of operation. His "Fly Plan 1994" never got off the ground.[27]

Looking back, Shugrue praised the outcome of Eastern's bankruptcy.[28] He commented, "In working to meet our obligations to Eastern's creditors, we are pleased that the cash recovery we have been able to realize represents a high water mark in this industry." An observer from the American Bankruptcy Research Institute disagreed. Eastern's bankruptcy, he said, was a "complete and total

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[26] *New York Times*, February 6, 1991 and court records.

[27] "Years later, Eastern Airlines' Pitch Remains the Same" Buy Me, Fly Me; Aviation Trustee Martin Shugrue Wants to Stop Selling Assets and Dust Off Fleet of Jets for Service," by Dan Blake, *Los Angeles Times*, June 19, 1994.

[28] "Judge Confirms Eastern's Bankruptcy Plan," by Gail Appleson, *Reuter European Business Report*, December 22, 1994.

screw-up. It's the classic example of the big-case mentality that the debtor is to be preserved at all costs. Instead of reorganizing, some businesses don't need to exist."[29]

7. Conclusions

Eastern Airlines' bankruptcy illustrates the devastating effect of court-sponsored asset stripping on firm value. In doing so, it demonstrates how important it is for the court to protect distressed firms' assets, not only from a run by creditors, but also from overly optimistic managers. Eastern's experience also shows how information and agency problems make the outcome of Chapter 11 sensitive to the judge's assessment of a firm's prospects. Ideally, a judge would be skilled enough to provide both protection and discipline: protection from value-destroying actions, and discipline to motivate productive restructuring or exit. In reality, this seems a lot to ask, especially when value-maximization requires that painful decisions be made. In Eastern's case, the judge's support of attempts to revive Eastern resulted in massive value destruction, and failed to preserve the company or jobs.

Hostile labor-management relations and resistance to finding a buyer for the company also played a critical role in Eastern's value decline. A strike precipitated the company's Chapter 11, and unionized employees blocked Ueberroth's takeover offer. Also, the actions of unionized employees who, for example, told the public that Eastern's planes were unsafe, undoubtedly contributed to the massive decline in revenues. In addition, managers and the judge resisted interference from the market for corporate control. Their resistance blocked market-driven restructuring and inhibited the generation of arms-length estimates of firm value which, at the least, could have been used productively by the court.

In identifying problems with Chapter 11, many authors, such as Meckling (1977), have focused on the importance of upholding the priority of claims in bankruptcy. They warn that systematic violation of priority will result in increased contracting and financing costs. This study

[29] Dallas attorney Robin Phelan, as quoted in "A Billion Later, Eastern's Finally Gone," American Lawyer Newspaper Group., Inc., February 6, 1995.

identifies asset stripping as a more basic, and potentially more damaging, problem. In order to have anything to distribute to claimholders, whether or not strict priority is upheld, the court must protect the value of a firm's assets. For distressed firms with liquid assets—from cash to planes—this is a serious problem. The temptation to sell readily liquid assets to continue the firm's operations, even if doing so destroys value, can prove irresistible. In addition, such actions are easily rationalized; they appear to be the socially responsible thing to do, and postpone the fallout of painful outcomes. The avoidance of painful decisions is more likely to arise in situations where massive downsizing or shutdown is required. This implies that Chapter 11 is likely to result in a poor allocation of resources when a large or highly visible non-viable firm is distressed. A lack of protection of liquid assets by the court ultimately undermines firms' ability to issue unsecured claims.

The potential for asset stripping is a largely unexamined problem that has important implications for optimal debt capacity. Its effect runs counter to analysis presented in Shleifer and Vishny (1992). They argue that distressed firms selling assets are likely to face an illiquid market because their industry peers are also distressed. Thus, assets can only be sold at "fire sale" prices. They conclude that this illiquidity reduces a firm's debt capacity. In contrast, as Eastern's case illustrates, asset liquidity is what allows value-destroying asset stripping to occur. Illiquid assets would provide creditors with protection from such actions. Unless a credible promise can be made not to engage in asset stripping, including the court's willingness to protect assets in Chapter 11, asset liquidity will reduce, not increase, a firm's ability to issue debt securities. We predict that as capital markets continue to develop and provide increased liquidity in a variety of asset markets, the problem of asset-stripping will increase in importance.

References

Appleson, Gail, Judge Confirms Eastern's Bankruptcy Plan, *Reuter European Business Report*, December 22, 1994.

Baird, Douglas G., 1986, The uneasy case for corporate reorganizations, Journal of Legal Studies 15, 127-147.

Baldwin, Carliss Y., 1993, Asset Stripping: The Cost of Liquidity to Unsecured Creditors, Unpublished Manuscript, Harvard Business School.

Bernstein , Aaron, Michael Oneal, and Gail DeGeorge, with Seth Payne, Eastern: The Wings of Greed, Business Week, November 11, 1991.

Borenstein, Severin and Nancy L. Rose, 1995, Do airlines in Chapter 11 harm their rivals?, National Bureau of Economic Research Working Paper 5047.

Bebchuk, Lucian A., 1988, A new approach to corporate reorganizations, Harvard Law Review 101, 775-804.

Easterbrook, Frank H., 1990, Is corporate bankruptcy efficient?, Journal of Financial Economics 27, 411-418.

Franks, Julian R. and Walter N. Torous, 1989, An empirical investigation of U.S. firms in reorganization, Journal of Finance 44, 747-779.

Galen, Michele, (1990), It may be time to pull the plug on Eastern, Business Week, December 17, 29.

Gibbs, Lisa with Amy Boardman, A Billion Later, Eastern's Finally Gone, American Lawyer Newspaper Groups, February 6, 1995.

Gilson, Stuart C., Kose John and Larry H.P. Lang, 1990, Troubled debt restructurings, Journal of Financial Economics, 27, 355-387.

Gilson, Stuart C., and Michael Vetsuypens, 1993, CEO Compensation in Financially Distressed Firms: An Empirical Analysis, Journal of Finance, 48, 425-458.

Handjinicoloaou, George, and Avner Kalay, 1984, Wealth Redistribution or changes in firm value: An analysis of returns to bondholders and stockholders around dividend announcements, Journal of Financial Economics 13, 35-63.

Jackson, Thomas H., 1986, Of liquidation, continuation, and delay: An analysis of bankruptcy policy and nonbankruptcy rules, American Bankruptcy Law Journal 60, 399-428.

Jensen, Michael C., and William H. Meckling, 1976, Theory of the firm: Managerial behavior, agency costs and ownership structure, Journal of Financial Economics 3, 305-360.

Jensen, Michael, 1993, The modern industrial revolution, exit and the failure of internal control systems, Journal of Finance 48, 831-880.

Lawrence, Jennifer, Eastern sets last-ditch upgrade plan, Advertising Age, September 10, 1993.

Tashjian, Elizabeth, Ronald C. Lease,and John J. McConnell, 1996, Prepacks: An empirical analysis of pre-packaged bankruptcies, Journal of Financial Economics 40, 135-162.

LoPucki, Lynn M., and William C. Whitford, 1991, Venue choice and forum shopping in the bankruptcy reorganization of large, publicly held companies, Wisconsin Law Review, 11-63.

Lubove, Seth, 1991, A bankrupt's best friend, Forbes April 1, 99-102.

Meckling, William H., 1977, Financial markets, default, and bankruptcy: The role of the state, Law and Contemporary Problems 41, 13-38.

Pulvino, Todd, 1995, Do asset fire-sales exist? An empirical investigation of commercial aircraft transactions, Doctoral Thesis, Harvard University.

Rasmusseen, Robert K., (1992), Debtor's choice: A menu approach to corporate bankruptcy, Texas Law Review 71, 51-121.

Roe, Mark J., 1983, Bankruptcy and debt: A new model for corporate reorganization, Columbia Law Review 83, 527-602.

Salpukas, Agis, Eastern Airlines Brought Down by Strike So Bitter It Became a Crusade, New York Times, January 20, 1991.

Salpukas, Agis, Eastern's Fate Now with Trustee, New York Times, April 20, 1990.

Shleifer, Andrei and Robert Vishny, 1992, Liquidation Values and Debt Capacity: A Market Equilibrium Approach, Journal of Finance, 47, 1343-1366.

Warga, Arthur, and Ivo Welch, 1993, Bondholder losses in leveraged buyouts, The Review of Financial Studies 6, 959-982.

Warner, Jerold B., 1977, Bankruptcy costs: Some evidence, Journal of Finance 32, 337-347.

Weiss, Lawrence A., 1990, Bankruptcy resolution: Direct costs and violations of priority of claims," Journal of Financial Economics, 27, 285-314.

Wruck, Karen Hopper, 1990, Financial distress, reorganization, and organizational efficiency, Journal of Financial Economics 27, 419-446.

Eastern Airlines; Terminal?" American Survey, The Economist, March 11, 1989.

Documents and Data Sources

Bankruptcy court documents obtained from the United States Bankruptcy Court of the Southern District of New York, located in Manhattan, NY.

Miscellaneous articles from the business press including Business Week, Forbes, Newsweek, Turnaround & Workouts: News for people tracking distressed businesses, The Airline

Monitor, The Economist, The New York Times, The Wall Street Journal, The Washington Post, U.S.A. Today.

Notable Corporate Chronologies, Gale Research, Inc.

Merrill Lynch High Yield Securities Research, 1989, The Airline Industry, 33.

Participants in Interviews and Correspondence

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2. Jimmy Breedlove, Marketing Analyst at Delta Air Lines.
3. James Callison, Senior Vice President of Delta Air Lines.
4. Frank Lorenzo, former CEO of Eastern Airlines.
5. Harvey Miller, counsel for Eastern Airlines.
6. Deryck Palmer, counsel for Eastern Airlines.
7. Robert Rosenberg, counsel for Peter Ueberroth in his bid to purchase Eastern Airlines.
8. Martin Shugrue, trustee for Eastern Airlines.
9. Robert Baujan, Eastern Airlines (o/s/ title).
10. (o/s permission to use name), Eastern Airlines CFO.
11. Nine of the 16 members of the Unsecured Creditors' Committee, and various counsel.
12. Two of the secured creditors.
13. Three airline analysts who work for major Wall Street investment banks.
14. Counsel for Pension Benefit Guarantee Corporation.
15. Numerous lawyers and bankruptcy judges.

TABLE 1
EASTERN AIRLINES' PROFITABILITY, SALES AND ASSETS AND INDUSTRY PROFITABILITY
FISCAL YEARS 1985 THROUGH 1990

	Before Eastern's Chapter 11				After Eastern's Chapter 11	
Financial Data for Fiscal (a)	1985	1986	1987	1988	1989	1990
EASTERN'S PERFORMANCE ($ MILLIONS)						
Operating profit before depreciation	$526.7	$394.8	$390.7	$111.8	($614.5)	($332.2)
Operating profit after depreciation	$221.6	$65.0	$58.9	($209.5)	($864.7)	($533.3)
Net Income	$6.3	($130.8)	($181.7)	($335.4)	($852.3)	($1125.9)
Sales	$4815.1	$4401.6	$4447.6	$3806.1	$1498.1	$2131.0
Total Assets	$3870.1	$4608.0	$4036.8	$3673.5	$3280.5	$2703.8
EASTERN AND INDUSTRY PERFORMANCE (OPERATING PROFIT BEFORE DEPRECIATION AS A % OF TOTAL ASSETS)						
Eastern	13.6%	8.6%	9.7%	3.0%	-18.7%	-12.3%
Industry (b)						
Average	13.2%	6.0%	7.2%	10.5%	5.1%	2.4%
Median	12.5%	9.5%	10.8%	12.4%	12.1%	5.0%
% worse than Eastern	77% (10 of 13)	38% (5 of 13)	46% (6 of 13)	8% (1 of 13)	10% (1 of 10)	10% (1 of 10)

(a) Data items are taken from COMPUSTAT.

(b) The industry group is comprised of all COMPUSTAT listed U.S. Airlines with assets in excess of $500 million. Each fiscal year has data on a minimum of 10 and a maximum of 13 industry competitors. Although separate data are available for some years, Continental is excluded because Eastern and Continental are owned by the same holding company and this might confound the findings. Of the industry competitors, only Braniff filed Chapter 11 during this period (9/89). Other major carriers to file over the next several years were Pan Am (1/91), American West (6/91), and TWA (1/92).

TABLE 2
CLAIMS AGAINST EASTERN AIRLINES AT THE TIME OF ITS CHAPTER 11 FILING (3/9/89) AND CLAIMANT'S PAYOUTS AND RECOVERY RATES (a)

		Allowed Claims Against Eastern ($ MILLIONS)		Payouts to Claimants ($ MILLIONS, % RECOVERY RATE)		
SECURED DEBT WITH SUFFICIENT COLLATERAL:						
Export Credit and Second Secured Notes (b)						
•Export Credit Promissory Notes			$213.5		$213.5	100%
•17.25% Secured Equipment Notes			$200.0		$200.0	100%
11.48% Secured Equipment Certificates (c)			$188.0		Equipment Returned	100%
Installment and Purchase Obligations (d)			$119.6		Equipment Returned	100%
Tax Benefit Transfer Leases (e)			$26.0		$26.0	100%
	Total:	**$747.1**		**$747.1**		**100%**
SECURED DEBT WITH INSUFFICIENT COLLATERAL:						
$500 Million Equipment Certificates (f)						
•11.75% First Equipment Certificates			$187.9		$187.9	100%
•12.75% Second Equipment Certificates			$168.7		$40.9	60%
•13.75% Third Equipment Certificates			$97.1		$5.6	6%
	Total:	**$453.7**		**$234.4**		**52%**
ACCRUED INTEREST ON SECURED DEBT:		**$308.2**		**$174.4**		**57%**
CAPITAL LEASE OBLIGATIONS		**$673.8**		Equipment Returned		**100%**
UNSECURED DEBT:						
Individual Claims less than $100,000 each (g)			$185.0		$20.4	11%
Individual Claims greater than $100,000 each						
PBGC Pension Claims (h)			$595.0		$92.1	15%
Manufacturers' Subordinated Notes			$250.5		$27.6	11%
Convertible Subordinated Debentures			$241.0		$15.3	11%
Estimated Healthcare Claims (i)			$253.0		$20.4	8%
Subordinated (government fines and penalties)			$50.5		$0.0	0%
	Total:	**$1,575.0**		**$175.8**		**11%**
TOTAL FIXED CLAIMS:		***$3,757.8***		***$2,005.5***		
EQUITY:						
Preferred Stock [estimated market value] (j)			$350.8		$0.0	0%
Common Stock [estimated upper bound] (k)			$820.0		$0.0	0%
	Total:	**$1170.8**		**$0.0**		**0%**
TOTAL FIXED CLAIMS AND EQUITY:		***$4,928.6***		***$2,005.5***		

(a) Source documents include Bankruptcy trustee's interim reports, Eastern financial statements filed with the court, the financial press, and discussion with Eastern's management and lawyers. It is not possible to obtain precise estimates for all amounts owed and paid. Many amounts were subject to litigation and amounts presented represent settlements between the parties when available.

(b) Export credit notes had a first claim and the second secured equipment notes a second claim on a pool of 13 aircraft.

(c) General Electric Credit Corporation (GECC) was the sole holder of the 11.48% certificates which were secured by 10 aircraft. On 6/24/91, GECC reached an agreement with Eastern under which in exchange for debt forgiveness the 10 planes along with 13 leased aircraft would be returned. GECC would also assume some associated liabilities.

(d) These obligations were secured by two aircraft. In February 1991, Eastern defaulted on an $8 million payment and returned the collateral aircraft.

(e) Tax Benefit Transfer claims result from sale-leaseback transactions under which the face value of the claim is approximately equal to the tax benefits of aircraft ownership.

(f) Eastern Airlines financed the purchase of 67 aircraft with these three series of secured equipment certificates. In the event of default, the first certificates had first priority over proceeds from the sale of collateral aircraft, the second certificates had second priority and so on. If collateral value was insufficient to cover the claim, affected certificate holders would receive a general unsecured claim equal to the amount of the deficiency. Payment on the total unsecured claim would be made according to priority. Any sum received by the third certificate holders as payment for an unsecured claim would have to be turned over to the second certificate holders until they were paid in full. In fact collateral was insufficient, so second and third certificate holders received a partial cash distribution and a general secured claim of $97.2 million that paid 11%.

(g) Individual claims include accounts payable, air traffic liabilities, accrued payroll, and other miscellaneous liabilities. Payment was made on these claims on February 1995.

(h) The Pension Benefit Guarantee Corporation (PBGC) filed a claim of $791.8 million against Eastern. It settled for $30 million in cash and an unsecured claim of $565 million against Eastern, and an addition claim against Texas Air and Continental. Payout includes $30 million and its pro rata share of the payout to individual claims greater than $100,000.

(i) Estimated amount to fully fund retiree healthcare claims against Eastern was between $350 and $450 million. Eastern paid $100 million in health claims over the course of the bankruptcy before terminating its plan. At termination a $20.4 million trust was established to provide some continuing coverage.

(j) On the filing date, the book value of Eastern's four series of preferred stock was $613 million. Only one preferred series had regularly available market prices. To estimate the market value, we multiplied the market-to-book ratio of this issue by the book value of the remaining issues.

(k) The market value of Eastern's common stock is estimated at $820 million—the amount of Ueberroth's withdrawn offer for Eastern's common (excluding the East Coast Shuttle) made following the Chapter 11 filing plus the $356 million Trump paid for the East Coast Shuttle.

TABLE 3
ESTIMATES OF EASTERN'S LOSS IN VALUE DURING CHAPTER 11
($ MILLIONS)

	Total Fixed Claims Against Eastern + Market Value of Equity	Long Term Liabilities + Market Value of Equity	Merrill Lynch Value Estimate (a)	Total Fixed Claims Against Eastern	Long Term Liabilities
Measure of Firm Value at Chapter 11 (b)	$4,929	$4,681	$4,392	$3,758	$3,510
Less Chapter 11 Payout to Claimholders (c)	$2,005	$2,005	$2,005	$2,005	$2,005
Estimate of Value Loss in Chapter 11	$2,924	$2,676	$2,387	$1,753	$1,505

(a) At the time of Eastern's Chapter 11 filing, Merrill Lynch's Capital Markets Fixed Income Research Group estimated the fair market value of Eastern's assets at $4,392 million.

(b) Data sources include Bankruptcy trustee's interim reports, Eastern financial statements filed with the court, the financial press, discussion with Eastern's management and lawyers, and COMPUSTAT. See table 2.

(c) Assumes return of equipment to creditors represents payment-in-full. This likely biases the estimate of value loss downward.

TABLE 4
ASSET SALES, DEPOSITS TO ESCROW ACCOUNT AND WITHDRAWALS FOR OPERATIONS AND DISTRIBUTIONS TO BONDHOLDERS
($ MILLIONS)

Year	Number of Planes in Eastern's Fleet	Proceeds from Asset Sales	Deposits to Escrow Account (a)	Funds Available for Distribution During Year	Distributions to Company to Fund Operations (% of available)	Distributions to Bondholders to Repay Debt (% of available)	Year End Escrow Account Balance (% of available)
1989	259 (171 owned, 88 leased)	$870.2	$784.9	$784.9	$210.0 (27%)	$0.0 (0%)	$574.9 (73%)
1990	191 (110 owned, 81 leased)	$754.5	$730.2	$1,305.1	$475.0 (36%)	$38.2 (3%)	$792.0 (61%)
Through Sept. 1991	185 (94 owned, 91 leased)	$221.6	$197.7	$989.7	$243.2 (25%)	$644.5 (65%)	$102.0 (10%)
Overall:	—	**$1,846.3**	**$1,712.8**	**$1,712.8**	**$928.2 (54%)**	**$682.7 (40%)**	**$102.0 (6%)**

Sources: Eastern financial statements and 10Qs publicly available and filed with the court. The major asset sale in 1989 was the East Coast Shuttle to Donald Trump for $356 million. The major asset sale in 1990 was the sale of Latin American routes and other assets to American Airlines for $471 million, of which $349 million went to Eastern.

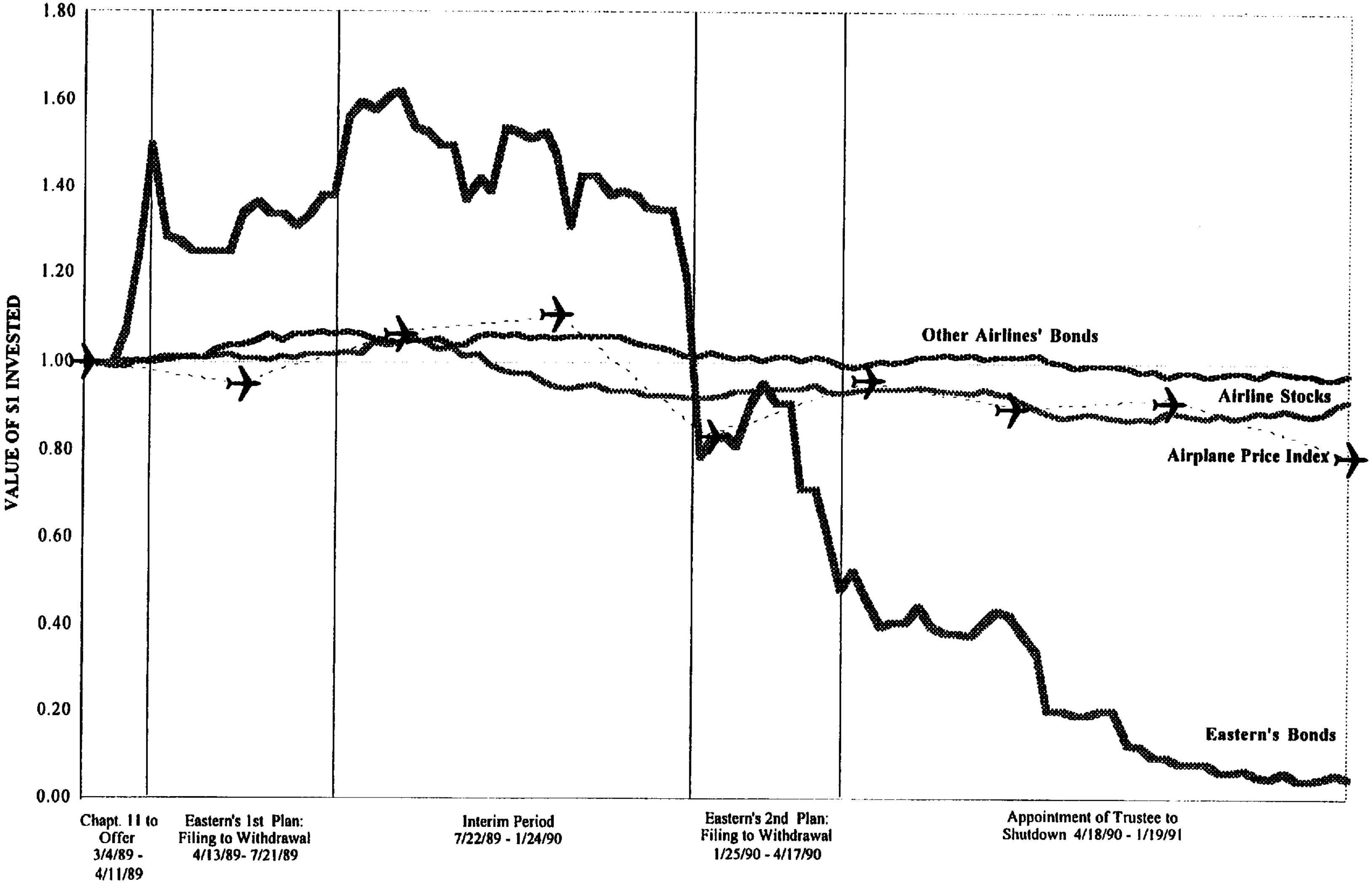
(a) Deposits to escrow accounts were less than asset sale proceeds because some funds went directly to fund costs associated with asset sales and operations.

TABLE 5
EASTERN'S ACTUAL OPERATING PERFORMANCE AND ESTIMATES OF PERFORMANCE "AS IF" EASTERN HAD THE AVERAGE INDUSTRY COST STRUCTURE ($ IN MILLIONS)

	Two Years Before Eastern'sChapter 11 (1987 and 1988)		Two Years After Eastern's Chapter 11 (1989 and 1990)	
Panel A: Actual and "As If" Operating Profit After Depreciation				
Actual Operating Profit After Depreciation	($150.6)		($1,398.0)	
Operating Profit After Depreciation "As If" Eastern had the Average Industry Cost Structure	$348.7		($13.8)	
Difference	***($499.3)***		***($1,384.2)***	
Panel B: Comparison of Eastern's Cost Structure with an "As If" Cost Structure Based on the Industry Average				
Labor Cost Difference	$554.4		$355.2	
Mainentance Labor		$179.5		$7.7
Non-Maintenance Labor		$379.3		$310.4
Other Labor (Salary and Benefits Cost)		($4.4)		$37.1
Fuel Cost Difference	($25.8)		$150.0	
Other Cost Difference	($29.2)		$879.0	
Total Cost Difference	***$499.3***		***$1,384.2***	

Data Source: *The Aviation and Aerospace Almanac*. Eastern's actual operating performance in millions of dollars is presented. As a benchmark for comparison, an estimate is made of Eastern's performance "as if" it had the average industry cost structure. For each year, the average industry cost structure is estimated using data on thirteen publicly traded U.S. airlines with data available on COMPUSTAT and in *The Aviation and Aerospace Almanac*. For each of three cost categories (Fuel, Labor, and Other Costs) the industry average as a percentage of operating revenue is taken. Based on these average percentages and Eastern's actual operating revenue, an "as if" estimate of Eastern's costs is calculated. The difference between Eastern's Actual and "As If" operating profit can be viewed as either the excess of Eastern's cost over those common in the industry, or the amount by which operating revenues would have had to increase for Eastern to had average profits given its cost structure. Details of the differences between Eastern's cost structure and the average industry cost structure are presented in Appendix A.

FIGURE 1
EASTERN'S BOND RETURNS COMPARED TO AN INDUSTRY INDEX OF BOND PRICES, AN INDUSTRY INDEX OF STOCK PRICES, AND AN INDEX OF MARKET PRICES FOR NARROW BODY AIRCRAFT (a)



(a) The Bond Index is comprised of data from publicly traded bonds of American, USAir, and Delta Airlines. The Stock Index includes data from eight publicly traded major U.S. carriers. Aircraft price index data are from Pulvino (1995).

TABLE 6
RETURNS TO 4.75% CONVERTIBLE SUBORDINATED DEBTHOLDERS AND OPERATING LOSSES DURING EASTERN'S BANKRUPTCY

Time Period	Returns to 4.75% Convertible Subordinated Debtholders	Cumulative Returns to 4.75% Convertible Subordinated Debtholders (a)	Operating Profit (b) Dates	Cumulative Operating Profit	Average Monthly Operating Loss
Chapter 11 Filing through Ueberroth Offer (3/4/89-4/11/89)	50.0%	50.0%			
Ueberroth Offer Falls Through (4/12/89)	-14.3%	28.6%	(157.4) 3/89-4/89	(157.4)	(78.7)
Eastern's First Plan: (4/13/89-7/21/89)	21.3%	56.0%	(212.1) 5/89-7/89	(369.5)	(70.7)
Interim Period between Withdrawal of First Plan and Second Plan (7/22/89-1/24/90)	-10.7%	39.9%	(414.9) 8/89-1/90	(784.4)	(69.2)
Eastern's Second Plan: Filing through Withdrawal (1/25/90-4/17/90)	-55.6%	-38.1%	(83.4) 2/90-4/90	(867.8)	(27.8)
Appointment of Trustee through Shutdown (4/18/90-1/19/91)	-92.8%	-95.5%	(442.0) 5/90-1/91	(1289.8)	(46.9)

(a) Bond price data taken from the *Wall Street Journal* and Merrill Lynch High Yield Research. Trading in Eastern's 4.75% bonds is thin, particularly in early 1989. To assess how bond prices move as events unfold, we take the next price reported after an event. If that price is more than three trading days following the event, it is denoted with an "*" in the supporting Appendix A.

(b) Monthly operating profit is taken from the bankruptcy trustee's interim reports and financial statements filed with the court.

APPENDIX A
EASTERN'S ACTUAL OPERATING PERFORMANCE AND ESTIMATES OF PERFORMANCE "AS IF" EASTERN HAD THE AVERAGE INDUSTRY COST STRUCTURE
($ MILLIONS)

	Before Eastern'sChapter 11				After Eastern'sChapter 11			
	1987		1988		1989		1990	
Panel A: Actual and "As If" Operating Profit After Depreciation	As a % of Operating Revenues	Dollars ($000,000)	As a % of Operating Revenues	Dollars ($000,000)	As a % of Operating Revenues	Dollars ($000,000)	As a % of Operating Revenues	Dollars ($000,000)
Actual Operating Profit After Depreciation	1.3%	$58.9	-5.4%	($209.5)	-55.7%	($864.7)	-24.4%	($533.3)
Operating Profit After Depreciation "As If" Eastern had the Average Industry Cost Structure	3.3%	$147.4	5.2%	$201.3	2.6%	$41.1	-2.5%	($54.9)
Difference		***($88.5)***		***($410.8)***		***($905.8)***		***($478.4)***
Panel B: Comparison of Eastern's Cost Structure with the Average Industry Cost Structure as a % of Operating Revenues and in $000,000s	Eastern (Industry Average)	$ Difference between Actual and "As If"	Eastern (Industry Average)	$ Difference between Actual and "As If"	Eastern (Industry Average)	$ Difference between Actual and "As If"	Eastern (Industry Average)	$ Difference between Actual and "As If"
Labor Cost	37.4% (32.2%)	$237.5	39.7% (31.5%)	$316.9	50.2% (31.8%)	$286.2	36.2% (33.0%)	$69.0
Fuel Cost	15.4% (16.3%)	($42.0)	14.5% (14.1%)	$16.2	17.1% (14.5%)	$39.7	21.5% (16.5%)	$110.3
Other Cost	45.9% (48.3%)	($106.9)	52.1% (49.2%)	$77.7	88.4% (51.1%)	$579.9	66.8% (53.0%)	$299.1
Total Cost Difference		***$88.5***		***$410.7***		***$905.8***		***$478.4***
Panel C: Comparison of Eastern's Labor Cost with the Average Industry Labor Cost as a % of Operating Revenues and in $000,000s	Eastern (Industry Average)	$ Difference between Actual and "As If"	Eastern (Industry Average)	$ Difference between Actual and "As If"	Eastern (Industry Average)	$ Difference between Actual and "As If"	Eastern (Industry Average)	$ Difference between Actual and "As If"
Maintenance Labor	4.2% (2.1%)	$97.6	4.4% (2.3%	$81.9	3.1% (2.7%)	$6.5	3.0% (2.9%)	$1.2
Non-Maintenance Labor	31.3% (28.1%)	$146.4	33.3% (27.3%)	$232.9	43.7% (27.2%)	$256.5	30.6% (28.1%	$53.9
Other Labor (Salary and Benefits Cost)	1.9% (2.0%)	($6.5)	2.0% (1.9%)	$2.1	3.4% (1.9%)	$23.2	2.6% (2.0%)	$13.9
Total Labor Cost Difference		***$237.5***		***$316.9***		***$286.2***		***$69.0***

Data Source: *The Aviation and Aerospace Almanac*. Eastern's actual operating performance as a percent of operating revenues and in millions of dollars is presented. As a benchmark for comparison, an estimate is made of Eastern's performance "as if" it had the average industry cost structure. The average industry cost structure is estimated using data on thirteen publicly traded U.S. airlines with data available on COMPUSTAT and in *The Aviation and Aerospace Almanac*. For each of three cost categories (Fuel, Labor, and Other Costs) the average as a percentage of operating revenue is taken. Based on these average percentages and Eastern's actual operating revenue, an "as if" estimate of Eastern's costs is calculated. The difference between Eastern's Actual and "As If" operating profit can be viewed as either the excess of Eastern's cost over those common in the industry, or the amount by which operating revenues would have had to increase for Eastern to had average profits given its cost structure. Details of the differences between Eastern's cost structure and the average industry cost structure are presented in panels B and C.

APPENDIX B
MAJOR EVENTS DURING EASTERN AIRLINES' BANKRUPTCY CASE AND RETURNS TO EASTERN'S 4.75% CONVERTIBLE SUBORDINATED DEBENTURES

Date	Event Description	Price of 4.75% Debentures(a)	Return from Previous Event	Cumulative Return from Chapter 11 Filing Date
Chapter 11 through Ueberroth Offer				
03/04/89	Eastern's Machinists, Pilots and Flight Attendants go on strike.	$42.000		
03/09/89	Eastern files Chapter 11. Unions immediately request that Lorenzo be replaced by a trustee.	—	—	—
03/20/89	Eastern advertises for pilots to replace strikers. Actively solicits offers from other airlines, aircraft brokers, and leasing firms for grounded aircraft.	—	—	—
03/23/89	Court appoints and examiner, David Shapiro who worked on Agent Orange case, to look into charges of improper transfer of assets from Eastern to Texas Air.	—	—	—
03/28/89	Former Baseball Commissioner Peter Ueberroth bids $300 million for Eastern Airlines excluding the East Coast Shuttle.	$45.000	7.1%	7.1%
03/30/89	After attempting to lower his bid in light of Eastern's Chapter 11 filing, Donald Trump agrees to pay his original bid of $365 million for the East Coast Shuttle.	—	—	—
03/31/89	Rumors circulate that Ueberroth's bid has been topped by another buyer.	$52.125	15.8%	24.1%
04/06/89	Eastern agrees to be acquired by Peter Ueberroth for $464 million. The deal is contingent on the unions agreeing to wage and benefit concessions and Eastern emerging from Chapter 11 by 4/12/89.	$63.000*	20.9%	50.0%
04/11/89	Unions agree to a five year contract that includes $210 million in wage and benefit concessions.	—	—	—
Ueberroth Offer Falls Through				
04/12/89	Sale to Ueberroth falls through after Lorenzo refuses to cede control of Eastern to a trustee for a two week interim period. Although he does agree to co-manage with Ueberroth, striking workers refuse to return to work under Lorenzo for any period of time. Unions ask TWA chairman Carl Icahn to bid for Eastern.	$54.000*	-14.3%	28.6%
Eastern's First Plan				
04/18/89	Eastern's parent company, Texas Air, pulls Eastern off the auction block. It plans to sell assets and return airline to service.	—	—	—
04/24/89	Eastern present first business plan to Unsecured Creditors Committee (UCC). Plan proposed the full cash repayment of unsecured debt. Company plans to sell $1.8 billion in assets including 40% of the company's aircraft.	$53.625	-0.7%	27.7%
05/01/89	Jay Pritzker, Chicago hotel magnate, wants to buy Eastern. Texas Air insists the airline is not for sale.	—	—	—
05/02/89	Examiner recommends against appointment of a trustee. Continues to look into asset transfer issues. Eastern reports that it has buyers for $1.1 billion of the $1.8 billion in assets it wants to sell.	$52.500	-2.1%	25.0%

05/04/89	The former chairman of Piedmont Airlines and Prudential-Bache securities expresses interest in Eastern. America West Airlines expresses interest in the East Coast Shuttle and other assets.	—	—	—
05/08/89	Options trader Joseph Ritchie works with Shearson Lehman Hutton on a bid for Eastern.	—	—	—
05/10/89	Carl Icahn announces that TWA will not bid for Eastern.	—	—	—
05/11/89	America West Airlines bids $415 million for the East Coast Shuttle. USAir Group bids $512 million for other Eastern Assets.	—	—	—
05/17/89	Judge approves the sale of the East Coast Shuttle to Trump for $365 million. Creditors press for an escrow account to hold proceeds of asset sales.	—	—	—
06/06/89	Creditors conclude Ritchie's offer is not viable, in large part because Texas Air refuses to sell Eastern.	$56.125*	6.9%	33.6%
07/21/89	Eastern files first plan of reorganization. Judge allows firm to withdraw $75 million from escrow account to fund operations.	$65.500*	16.7%	56.0%
Interim Period Between Withdrawal of First Plan and Second Plan				
08/30/89	Eastern informs UCC that its first plan is no longer viable and must be reworked because it has been unable to sell assets and is continuing to lose money. Presents a revised plan.	—	—	—
09/01/89	Eastern wants more money to fund its mounting operating losses.	$64.500	-1.5%	53.6%
09/13/89	Eastern sells planes and two international routes to Midway Airlines for $210 million.	$62.875	-2.5%	49.7%
10/04/89	Judge allows firm to withdraw $75 million from escrow account to fund operations.	$59.750	-5.0%	42.3%
11/08/89	Citing an anticipated $200 million cash shortfall, management requests an extension of their exclusive right to file a plan.	$64.000	7.1%	52.4%
11/24/89	Eastern discusses the sale of assets to American Airlines. Pilots and attendants end their 264 day strike.	$55.000	-14.1%	31.0%
12/20/89	American Airlines confirms that it is buying $471 million in assets from Texas Air including its Latin American routes. Of the $471, $349 will go to Eastern, $102.5 to Continental, and $19.5 to System One, Texas Air's reservation system.	$58.500	6.4%	39.3%
Eastern's Second Plan: Filing through Withdrawal				
01/25/90	Eastern presents second plan to UCC, and the parties reach an agreement in principle. Unsecured creditors will receive 50% repayment half of which will be in cash and half in 15% notes.	$50.000	-14.5%	19.0%
02/01/90	Judge allows firm to withdraw $50 million from escrow account to fund operations	$33.000	-34.0%	-21.4%
02/13/90	Judge gives Eastern eight days to file a reorganization plan before their exclusivity period ends. This is management's fourth and final extension.	$35.000	6.1%	-16.7%
02/20/90	Management's period of exclusivity ends.	—	—	—
02/22/90	An agreement is reached with unsecured creditors and Eastern files its second plan. Texas Air offers its own notes and cash to pay Eastern's unsecured creditors.	$34.000	-2.9%	-19.0%
03/01/90	Examiner's report is filed. Estimates total of improper transfers from Eastern to Texas Air ranging from $280 million to $403 million. Lorenzo settles associated lawsuit for $280 million. Examiners report is sealed and so made unavailable to the public.	$38.000	11.8%	-9.5%

03/07/90	Eastern receives anti-trust clearance to sell its Latin American routes to American Airlines for $349 million.	$40.000	5.3%	-4.8%
03/24/90	Eastern projects 1990 losses will increase from $145 million to $330 million.	—	—	—
03/27/90	Eastern informs UCC that its cannot meet the terms of its second reorganization plan.	—	—	—
03/30/90	UCC threatens to request that Eastern be liquidated if Texas Air doesn't play a more active role in Eastern's reorganization.	$30.000	-25.0%	-28.6%
04/03/90	Creditors reject an offer by Eastern that will pay them 25% on the dollar, 20% of which will be in cash and 80% in notes. UCC votes to request management be replaced by a trustee.	$30.000	0.0%	-28.6%
04/10/90	Eastern's shareholders propose that the court make Eastern an independent company that would be 95% owned by unsecured creditors and preferred stockholders and run by new management. UCC asks judge to appoint a trustee.	$26.000	-13.3%	-38.1%
04/16/90	UCC rejects a last minute reorganization plan from Eastern and pushes for a trustee.	—	—	—
Appointment of Trustee to Shutdown				
04/18/90	Martin Shugrue, former COO of Pan Am and former President of Continental (ousted by Lorenzo) is appointed trustee. Court allows trustee to use $80 million from escrow account to fund operations.	$20.000	-23.1%	-52.4%
05/23/90	Sale of $349 million in assets to American Airlines closes.	$18.500*	-7.5%	-56.0%
07/05/90	Northwest and Eastern unions discuss the possibility of the integration of some assets.	$17.000	-8.1%	-59.5%
07/23/90	Northwest chairman, Alfred Checci, proposes that he oversee a controlled liquidation of Eastern.	$16.000*	-5.9%	-61.9%
08/02/90	Iraq invades Kuwait, and oil prices rise substantially.	$14.000	-12.5%	-66.7%
11/09/90	Shugrue announces that Eastern could be cash positive by the first quarter of 1991, but to continue the company needs $30 million.	$2.500	-82.1%	-94.0%
11/14/90	UCC publicly announces that it wants Eastern shutdown.	—	—	—
11/15/90	Judge allows Eastern to use $15 million from escrow account to fund operations. The company requested $30 million.	$2.625*	4.8%	-93.8%
11/28/90	Judge approves Eastern's request to use $135 million from escrow account to fund a "do-or-die" effort to revive the airline.	$2.125	-18.9%	-94.9%
12/19/90	American Airlines purchases assets from Eastern for $10 million.	$1.750	-17.6%	-95.8%
01/19/91	At 12:01 AM Eastern Airlines ceases operations.	$1.875	7.1%	-95.5%
01/22/91	Delta buys Eastern's Atlanta gates for $41.4 million.	NA	NA	NA
01/23/91	Northwest buys Eastern's assets at Washington National for $23.2 million.	NA	NA	NA
01/28/91	Machinists call off their 692 day strike against Eastern.	NA	NA	NA

(a) Bond price data taken from the *Wall Street Journal* and Merrill Lynch High Yield Research. Trading in Eastern's 4.75% bonds is thin, particularly in early 1989. To assess how bond prices move as events unfold, we take the next price reported after an event. If that price is more than three trading days following the event, it is denoted with an "*". An "—" indicates that there is no bond price reported prior to the next event.