

Research Department  
Federal Reserve  
Bank of  
San Francisco

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## Dripping Red Ink at 37,000 Feet

Profit figures for the nation's most glamorous industry, the airlines, have looked positively dowdy these last few years. Indeed, the airlines have been dripping substantial quantities of red ink because of the strong headwinds of recession, inflation, and OPEC price hikes. In this environment, the air controllers' strike appeared (at least on the surface) to be a crippling blow.

The airlines normally handle 86 percent of all U.S. common-carrier intercity traffic, and travelers prefer them even to the private auto for all trips over 500 miles. Thus, air travel jumped, between 1970 and 1980, from 132 billion to 254 billion revenue passenger miles. But the bottom line has wobbled considerably in this decade of economic shocks (see chart); in particular, operating profits shifted from an unparalleled \$1,365 million plus figure in 1978 to an equally unparalleled \$225-million deficit figure in 1980. This year's modest first-half recovery in profits now seems likely to be swamped in more red ink, since the controllers struck at the beginning of the peak August vacation-travel period—and since (in the words of one saddened airline spokesman) "You can't sell Christmas toys in January."

In the intricate input-output matrix of the U.S. economy, the sudden strike-initiated cutback in airline travel has affected a number of industries that depend heavily on the airlines—or that compete with them. Long after the strike crisis ends, however, the industry (and its suppliers) will still have to deal with the problems of a sluggish inflation-ridden economy, and with the problems (and opportunities) created by the need to make its own decisions in a deregulated environment.

### Impact of strike

Several weeks after the start of the crisis, the nation's air travel has settled into a new routine of reduced service. The Federal Aviation Administration installed a makeshift crew of

nonstrikers and supervisors when about 13,000 of the 17,000 unionized controllers walked off the job. At first, the FAA sharply reduced scheduled "trunk" and commuter airline flights at 22 major airports, and for the nation as a whole, imposed a 20-percent overall cutback in scheduled flight operations. Transportation Secretary Drew Lewis envisions an increase in flight volume to about 90 percent of normal by early next year—but also envisions a continuation of substantial flight delays during the peak morning and late-afternoon flying times.

The airlines previously had counted on a traditionally profitable third quarter to offset the \$75-million operating loss recorded in the first six months of 1981. Instead, they have been losing an estimated \$10-million a day during the early days of the strike, with relatively the heaviest losses being felt by the small feeder airlines that had grown so rapidly in the past several years. As a result, one-fifth or more of the nation's 339,000 airline employees may face layoffs in coming months. A weakening profit picture also faces airline-dependent activities—including airport hotels, airborne meal-service firms, vacation resorts, travel agents, and municipal airport authorities. But by the same token, the picture has brightened for competing forms of transportation, such as railroads, bus lines and car-rental services.

The longer the crisis continues—perhaps almost two years if an entire new cadre of controllers must be trained—then the more will industry come to rely on other forms of communication to carry on the nation's business. This means intensified use of the telephone, of course, as well as a boost to the infant teleconferencing industry, which uses satellite-relayed television to bring together executives, salesmen or other groups located in different cities. Teleconferencing is still an expensive proposition; one firm (Atlantic Richfield) expects to incur about \$20 million

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in costs over the next year to establish a permanent network. But teleconferencing is also a decreasing-cost industry, being based on inexpensive access to satellite transmission as well as another technical breakthrough which substitutes optical fibers as a substitute for copper wiring. And with the increased cost of air fares, hotels and meals—plus now the inconvenience of air travel—teleconferencing may soon become a preferred form of holding meetings.

### **Condition of the airlines . . .**

Nothing concentrates an executive's mind more than the sight of red ink, and that is doubly true of an industry that, with the strike, now seems likely to spend its second straight year in the minus column. In 1978, the airlines posted record operating profits of \$1,365 million on the heels of a sharp boost in aircraft utilization, with the revenue-passenger load factor jumping from 55.9 to 61.5 percent within a single year. In 1979, the airlines filled even more seats with a 63.0-percent load factor, but their profit picture abruptly worsened in the wake of the lengthy United Air Lines strike, the DC-10 grounding, and the sharp rise in OPEC oil prices. Then, in 1980, heavy losses developed as the passenger load factor dropped to 59.0 percent, following a recession-induced 7-percent drop in passenger numbers and 3-percent drop in revenue passenger miles.

The industry had already begun to retrench in response to these developments, and the strike-enforced restrictions will only accelerate that process. Airlines are now likely to ground their less efficient planes; of their 2,500-plane fleet about 500 planes incorporate 20-year old technology and were designed when fuel cost 11 cents instead of 89 cents a gallon. They are also likely to curtail flights on routes with few passengers, and concentrate on more profitable routes—especially those going through a "hub" city where connecting flights meet. With capacity curtailed, passenger load factors will rise again, and airlines will be able to withdraw

discount-fare offers and thus boost their revenues.

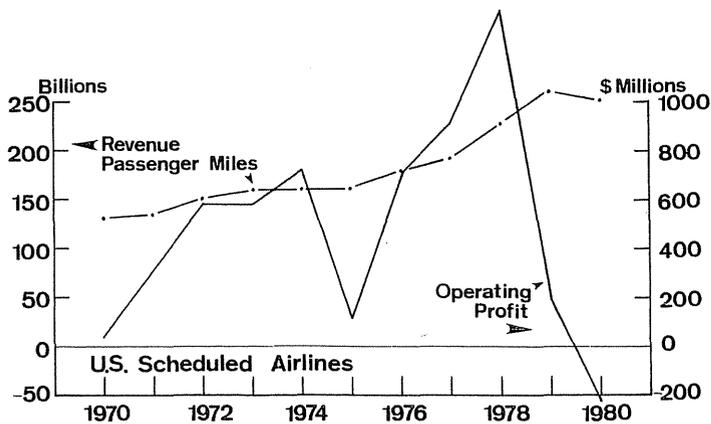
In some ways, the situation today resembles the 1974 situation, when another outside shock—the Arab oil embargo—created a jet-fuel shortage and forced the airlines to ground planes and boost fares. At that time, the airlines reduced payrolls by 7 percent over a two-year period in a successful effort to restore their financial health. The same could occur again today as the industry reduces its capacity in line with its reduction in scheduled flights.

### **. . . and the aircraft producers**

No one can be watching this situation more intently than the aircraft producers: Boeing (the industry leader with almost two-thirds of total commercial-aircraft sales), Airbus Industrie, Lockheed, and McDonnell Douglas. Firm contract orders reached a peak \$18.2 billion in 1979, but then fell to \$10.6 billion last year as airline purchasing agents reduced their orders following their own industry's loss of passenger traffic. A further order decline is likely in 1981, and probably in 1982 as well.

Until recently, aircraft producers had counted on a strong market in the middle and later 1980's. For example, Boeing had forecast a \$128-billion market for commercial aircraft through 1990, with large new orders being generated because of the airlines' need to improve fuel efficiency, replace aging planes, and meet Federal noise-abatement laws by the 1985 deadline. Boeing developed its 757 and 767 models to meet these requirements—especially the fuel requirement, since those models will consume about one-third less fuel than the jets they replace. That in itself is a major consideration, since the airlines' annual fuel bill has jumped from \$1.1 to \$9.2 billion over the past decade—from 12.7 to 30.5 percent of total expenses.

Most such sales estimates were made before airline profits went into a tailspin, and cer-



tainly before the strike forced cutbacks in service. This raises questions about the strength of current purchase commitments. The airlines expanded their fleets by 12 percent between 1978 and 1980, after a half-decade of stability, and under present circumstances many of their older planes are becoming a drag on the market. Several deficit-ridden airlines are now trying to postpone or cancel deliveries of planes on order, and we may see more of this behavior until the industry's load factors (and profits) improve.

### Competitive situation

Some critics blame the industry's problems on the Federal government's attempt to introduce a greater measure of competition into the industry, under the deregulation policies of two Civil Aeronautics Board chairmen, Alfred Kahn and Marvin Cohen, as enshrined in the Airline Deregulation Act of 1978. The act provided for the eventual phase-out or transfer of all the functions of the CAB, the principal regulatory agency in the air-service field. (The FAA, the major actor in the present strike, is concerned primarily with air safety.) By the end of this year, the CAB will lose most of its remaining authority over domestic routes, such as who flies where or when. By the end of next year, it will lose control over domestic fares and over airline mergers and interlocking relationships—and two years after that, the agency will go out of business completely.

In a 1978 address to the New York Society of Security Analysts, Alfred Kahn cited the prime lesson of 40 years of airline regulation: "An industry that is deterred from price competition, whether because of oligopolistic self-restraint or by cartel-like controls, will, if there remain incentives to compete, do so instead in service. If, for one reason or another, price is prevented from falling to marginal cost, then marginal cost will adjust upward to price. And if super-normal profits consequent on restriction of entry cannot be competed away through price reduction,

they will be competed away through service rivalry." Thus, until recent years, the CAB denied airline customers the possibility of different price/service combinations—and instead, encouraged over-scheduling, luxurious services (including airborne fashion shows), and excessive increases in labor and other costs.

In a report for the Council of Economic Advisers, George Eads made this point statistically by showing that unit costs (and hence fares) rose at a much slower pace after deregulation than before, despite sharp increases in both periods in prices of inputs (such as equipment, labor and aviation fuel). Unit costs rose by more than two-thirds of the increase in input prices between 1973 and 1977, but by less than one-third of the increase in input prices between 1977 and 1979. Deregulation-generated productivity gains accounted for the difference between the two periods. Primarily, the airlines increased the efficiency with which they utilized their primary capital assets—their aircraft—by filling more seats on each flight and by keeping their planes flying longer hours. They recorded similar efficiency gains in the utilization of their workforce and fuel supplies.

The initial phase-out of CAB powers over airline fares and routes thus worked very well for most airlines and the traveling public on the economic upswing. The real test has come with the more recent downswing and with the crisis created by the controllers' strike. For instance, the airlines somehow must generate \$1 billion or more in profits in each of the next several years if they hope to finance the fuel-efficient aircraft now on order. But most analysts believe that they can achieve that goal only through the operating flexibility possible in an environment of deregulation. In any event, as one airline executive says, "Results will be determined not by a regulatory agency but by the rules that grown-ups play by."

William Burke

FIRST CLASS

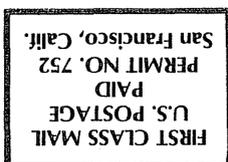
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**BANKING DATA—TWELFTH FEDERAL RESERVE DISTRICT**

(Dollar amounts in millions)

| Selected Assets and Liabilities             | Amount<br>Outstanding | Change<br>from        | Change from                   |         |
|---|-----------------------|-----------------------|-------------------------------|---------|
|   |                       |                       | Dollar                        | Percent |
| <b>Large Commercial Banks</b>               | 8/5/81                | 7/29/81               |                               |         |
| Loans (gross, adjusted) and investments*    | 151,352               | 1,280                 | 12,727                        | 9.2     |
| Loans (gross, adjusted) — total#            | 130,277               | 1,390                 | 13,411                        | 11.5    |
| Commercial and industrial                   | 39,673                | 928                   | 6,174                         | 18.4    |
| Real estate                                 | 53,473                | 79                    | 6,274                         | 13.3    |
| Loans to individuals                        | 23,148                | 45                    | — 679                         | — 2.8   |
| Securities loans                            | 1,346                 | — 24                  | 208                           | 18.3    |
| U.S. Treasury securities*                   | 6,158                 | — 68                  | — 96                          | — 1.5   |
| Other securities*                           | 14,917                | — 42                  | — 584                         | — 3.8   |
| Demand deposits — total#                    | 42,043                | 2,885                 | — 2,663                       | — 6.0   |
| Demand deposits — adjusted                  | 28,716                | 1,242                 | — 3,712                       | —11.4   |
| Savings deposits — total                    | 30,287                | 391                   | 851                           | 2.9     |
| Time deposits — total#                      | 83,838                | 149                   | 21,639                        | 34.8    |
| Individuals, part. & corp.                  | 75,932                | 380                   | 21,942                        | 40.6    |
| (Large negotiable CD's)                     | 34,117                | 110                   | 11,489                        | 50.8    |
| <b>Weekly Averages<br/>of Daily Figures</b> | Week ended<br>8/5/81  | Week ended<br>7/29/81 | Comparable<br>year-ago period |         |
| <b>Member Bank Reserve Position</b>         |                       |                       |                               |         |
| Excess Reserves (+)/Deficiency (—)          | n.a.                  | 75                    |                               | 16      |
| Borrowings                                  | n.a.                  | 105                   |                               | 12      |
| Net free reserves (+)/Net borrowed(—)       | n.a.                  | — 31                  |                               | 4       |

\* Excludes trading account securities.

# Includes items not shown separately.

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