GOVERNMENT POLICY FOR A PARTIALLY DEREGULATED INDUSTRY:

DEREGULATE IT FULLY

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As an academic economist and innovative policy official, Alfred Kahn advocated constructive economic policies that could be implemented in a political arena—that is, policies that could plausibly be characterized as actual Pareto improvements. Joseph Stiglitz (1998) lamented government's limited ability to implement such policies, so it is a great credit to Kahn that he became known as the father of one of the largest Pareto improvements during the postwar period—economic deregulation.

Kahn advocated deregulation because he believed that market forces would improve on government regulation in determining prices and service quality, while he also supported supplemental policies so deregulation would benefit as many consumers as possible. Kahn believed that effective governance was important for deregulation's success but the potential for government failure caused him to become occasionally conflicted about the efficacy of deregulation. In my view, Kahn should not have been conflicted because partial deregulation of U.S. industry has significantly enhanced social welfare. Government should now pursue full deregulation to enhance industry performance instead of adopting policies that—regardless of their intent—have been ineffective and sometimes counterproductive.

1. Airlines

As chairman of the Civil Aeronautics Board, Kahn contributed greatly to the 1978 Airline Deregulation Act, which, by allowing airlines to set fares and to serve any route they desired, increased flight frequency and lowered fares for some 70 percent of travelers accounting for nearly 80 percent of revenue passenger miles (Steven A. Morrison and Clifford Winston (1995)). But instead of fully deregulating the airlines, policymakers believed that certain policies could increase the benefits of partial deregulation or prevent any erosion of the gains already achieved.

A. Policies under Partial Deregulation

The Essential Air Services (EAS) program, a descendant of other airline subsidies dating from the 1930s, was created in 1978 to assuage congressional fears that airline deregulation would cause air service to small communities to disappear. In fact, airline deregulation led to an increase in the number of small communities that air carriers served (Morrison and Winston (1986)), indicating that profitable service without the need for subsidies could generally be provided in the long run for those communities. Nonetheless, EAS still provides annual subsidies that exceed \$100 million to air carriers that offer at least two flights a day to the 145 airports in the program, which may reduce the potential benefits to travelers in those markets by discouraging entry by carriers that could provide profitable and possibly more extensive service and by putting revitalized intercity bus carriers at a competitive disadvantage and thus discouraging service.

Deregulated airlines have been periodically accused of predatory practices. Kahn strongly supported applying the nation's antitrust laws and he thought that large carriers did, in certain cases, engage in predatory pricing. But no carrier has ever been found guilty of predation. In the spring of 1998, the U.S. Department of Transportation issued "predatory pricing guidelines" and, subsequently, the U.S. Department of Justice brought a predatory pricing case against American Airlines. Morrison and Winston (2000) used the routes that, according to the Transportation Department's guidelines, experienced predatory behavior to test for the possibility that carriers engaged in predatory pricing on routes where fares were higher than on comparable routes, so that they did not have to raise fares after driving out a competitor to benefit from this strategy. But they found that the gain to carriers from elevated fares on such routes was too small in the long run to justify absorbing losses in the short run. Of course, fares on certain routes, especially those comprised of an airport hub at only one of the endpoints, have been higher than fares on other routes, even controlling for trip distance and traffic density. However, it appears that physical airport entry barriers rather than the existence of a dominant carrier(s) are the source of any sustained fare premiums.

Morrison and Winston (2000) estimated that the fare premium at airports dominated by a hub carrier(s) was 23 percent if the control group of non-dominated airports was served by Southwest Airlines, but the premium was eliminated if the control group of airports was not served by Southwest. Does the hub premium reflect higher fares that should be addressed by a policy such as the 2000 Wendell H. Ford Aviation Investment and Reform Act, which included a condition that a dominated hub must provide a competition plan for how new entrants can be included in the airport facility, or does it reflect the state of Southwest's network development? The latter interpretation appears more consistent with the data as the hub premium began to decline in the late 1990s (Severin Borenstein and Nancy Rose (2007)) because low-cost carriers—Southwest and others—increased their market shares and presence at hub airports following cuts in capacity by the incumbent legacy (formerly regulated) carriers that experienced financial distress before and in the wake of the September 11 terrorist attacks.

Airport entry barriers do exist as a legacy of airline-airport contracts established during the 1950s and 1960s, whereby incumbent air carriers have exclusive use of certain gates, thus preventing new entrants from providing service or providing it only at inconvenient times. Morrison and Winston (2000) found that the prevalence of exclusive-use gates cost travelers some \$4.4 billion annually in higher fares. Federico Cilberto and Jonathan Williams (2010) also found that limiting carriers' access to airport gates has raised fares. Kahn (1989) indicated that he foresaw and pointed out to the Federal Aviation Administration (FAA) that deregulation would lead to greater and, because of the accelerated development of hub-and-spoke route structures, more concentrated traffic volumes at major airports, which would increase congestion and delays unless commercial airports, which are operated by local governments or through airport authorities, reformed their inefficient runway charges. But airports continue to charge airlines landing fees that are based on the weight of the aircraft and that do not vary by time of day. Congestion—which delays travelers—does vary, in accordance with the volume of aircraft traffic. Michael Ball et al. (2010) estimate that in 2007 the cost of delays to carriers—which raises fares—was \$8.3 billion, and the cost to passengers, accounting for flight cancellations and missed connections, was another \$16.7 billion.

Another source of delay that has not been addressed efficiently is congested airspace near airports that is managed by air traffic controllers. Travelers currently pay \$3.70 per flight segment and a 7.5 percent ticket tax for air traffic control services, which are based on the price of a given flight that may or may not vary with the time of day or with air space congestion.

Finally, a modernized air traffic control (ATC) system is critical to reduce delays *en route* and on airport runways. Advanced technology in the form of a new satellite-based system, known as NextGen, currently exists and would be a vast improvement over the current imprecise ATC technology based on radar—which updates aircraft positions only every 5 to 10 seconds and forces controllers to separate aircraft several miles to provide a safety buffer and avoid collisions, while the automatic dependent surveillance broadcast (a key component of NextGen) updates positions every second. By enabling pilots to be less dependent on controllers, to choose the most efficient altitude, routing, and speed for their trip, and to operate in cloudy and foggy weather much as they do on clear days, a NextGen satellite-based system could reduce air travel

times and carrier operating costs throughout the system. However, the FAA, which runs air traffic control, is likely to maintain its poor track record of upgrading the system's technology in a timely fashion because NextGen is already over budget and years behind schedule.

B. Full Deregulation

Further deregulation is likely to improve the performance of a partially deregulated industry. In the airline industry, that means eliminating remaining barriers to competition, including regulations that keep fares elevated on international routes and that prevent foreign airlines from competing with U.S. carriers on U.S. routes (that is, the denial of "cabotage" rights). U.S. policymakers have negotiated Open Skies agreements with several counties that have reduced fares in deregulated international markets (Anca Cristea and David Hummels (2010)). By negotiating agreements with the remaining countries, especially those in Asia where international fares are particularly high, and by allowing cabotage rights to create a fully deregulated competitive environment that would not threaten national security, policymakers would enable more travelers to gain from deregulation.

Travelers' gains from deregulation would also be larger if airports allocated terminal and runway capacity efficiently and if the FAA expedited the adoption of technological advances in air traffic control to reduce congestion and delays. But agency limitations, regulatory constraints, and political forces continue to impede efficiency improvements in public airports and in the nation's air traffic control system (Winston (2010)).

Accordingly, privatization of airports and air traffic control—while not easy to implement—represent potentially constructive reforms. For example, Jia Yan and Winston (2011) develop a model where privatized airports in the San Francisco Bay Area with separate owners compete for airline operations by setting profit-maximizing runway charges that reduce delays and airlines compete for passengers; runway charges are determined through separate negotiations between airlines organized as a bargaining unit and each of the Bay Area airports, Oakland, San Jose, and San Francisco. The authors find that by setting different charges for different classifications of airport users, scheduled commercial carriers and general aviation, the Bay Area airports would gain from privatization as would commercial travelers and carriers. Commercial air travelers would pay higher fares because airport charges to airlines would increase but the time-savings from less-congested air travel would more than offset that cost. General aviation would face higher charges but their losses would be softened if policymakers eliminated current prohibitions on (smaller) private airports from offering scheduled commercial service and encouraged them to compete for (smaller) aircraft operations. Allowing private airports nationwide to offer commercial service would especially benefit travelers in low-density markets by giving them access to more flight alternatives.

Dorothy Robyn (2007) points out that air traffic control is a high-technology service business that should not be trapped in a command-and-control federal bureaucracy. In fact, it should be moved outside of the traditional government bureaucracy altogether. The shift in the air traffic control system's technology from ground-based radar to satellites and cockpit controls presents an opportunity to allow competition in air traffic control service, which would improve efficiency and encourage providers to be more responsive to airspace users' preferences. Properly equipped aircraft can maintain safe distances from other planes over both land and water for most of the route without using controllers, but some supervision would still be necessary to coordinate takeoffs and landings and movements in terminal areas. As in the case of telecommunications, competition could arise because different regional ATC service providers could serve different terminal areas—and enter areas that were not receiving state-ofthe art service. Providers could negotiate directly with airspace users and airports to determine the price and type of service and equipment to be provided. And it may be desirable to privatize procurement of facilities and equipment to facilitate their integration with operations.

In contrast to U.S. cities, many cities throughout the world, such as London, New Delhi, Rome, Sydney, and Tokyo, have achieved cost savings by privatizing their airports subject to various degrees of regulation (Tae H. Oum, Yan, and Chunyan Yu (2008)). And many countries have restructured their air traffic control providers by granting them managerial and financial authority. More autonomy has caused providers to be more responsive to the preferences of the aviation community instead of treating the government as their primary client (Glen McDougall and Alasdair Roberts (2008)).

2. Other Industries

The lessons from the airline experience are replicated in other U.S. industries that have undergone regulatory reform. Kahn was a strong supporter of deregulating the trucking and railroad industries. Consumers in those industries have benefited from the intense competition that has reduced rates and improved service times and reliability (Winston (1998)), but government's lingering presence has not added to those gains.

The Surface Transportation Board was given the authority to determine the legality of rail rates in accordance with maximum rate regulations. Under those guidelines, shippers can challenge a rate if it exceeds 180 percent of variable costs and if the railroad in question has no effective competition (intermodal and boxcar traffic are exempted from the regulations). However, this regulatory framework created a politically charged environment where shippers, who are served directly only by one railroad and ship bulk commodities such as coal that cannot move easily by truck or barge for long distances, complained that they were paying more than their fair share of rail's costs while the railroads argued that their return on investment fell short of their cost of capital. Policymakers such as Senator Jay Rockefeller have threatened more regulation to resolve the matter, but shippers and railroads are taking steps to work out their differences by themselves; shippers are challenging fewer rates and the railroads, which are now earning their cost of capital, are settling challenges that shippers file. And the rail industry has invested some of its profits in infrastructure and equipment; thus, as traffic has increased along with the macroeconomic recovery, carriers are providing shippers with better service.

Policymakers have not intervened directly in the deregulated trucking industry's economic operations, but in contrast to rail shippers, truck shippers' costs from congestion and delays are large and growing. Winston and Ashley Langer (2006) estimate those costs approach \$15 billion annually. The trucking industry is taking a more favorable view of truck-only toll roads as a possible way to reduce travel time and congestion costs. Analogous to airports, privatization of highways may be the socially desirable way to alleviate congestion for all road users. Winston and Yan (2011) provide evidence that motorists could benefit from the policy and they suggest that including truckers in the analysis would increase social benefits.

Kahn's effect on the petroleum industry may turn out to be his most significant (and courageous) action as a champion of economic deregulation. In 1979, the Carter Administration was grappling with the consequences of seriously flawed regulatory control of domestic oil prices and rampant inflation. In his role as the nation's primary inflation fighter, Kahn tacitly agreed to allow administrative decontrol of oil prices, thereby allowing them to rise to the world price of oil and causing inflation to increase in the near term (before the 1980 election). Today, we witness the consequences of Kahn's farsighted decision in the dramatic revolution in oil and gas discoveries in the United States. A fully regulated energy sector would have never

developed the new technology that promises to make North America self-sufficient in hydrocarbon supply in the near future.

3. Final Comments

Alfred Kahn was a major force behind regulatory reform that placed greater reliance on market competition, which benefited air travelers and subsequently spread to other industries producing large welfare gains. At the same time, Kahn was hardly an ideological free-marketer because he perceived imperfections in markets that, in his view, motivated effective supplemental government policies. Unfortunately, effective governance of partially deregulated industries has not occurred in practice. But thanks in large measure to Kahn; partial deregulation revealed how markets can solve problems that government has failed to solve. Problems that persist in partially deregulated industries are more likely to be solved by full deregulation and, if necessary, privatization.

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