

Deregulation: Introduction and Overview

Paul W. MacAvoy and Richard Schmalensee

Beginning with The Act to Regulate Commerce in 1887, which established the Interstate Commerce Commission (ICC) and empowered it to regulate the railroads, and continuing for nearly nine decades, the U.S. federal government expanded its control of prices and other terms that could be offered by private firms in particular industries. In the last quarter of the 20th century, however, this secular increase in the scope of economic regulation was abruptly and dramatically reversed, and important sectors of the U.S. economy were deregulated. In several industries in which federal agencies had long argued that regulation was absolutely necessary to ensure reasonable prices, regulation was nonetheless abolished in favor of reliance on the interactions of suppliers and users – the “market”. The federal government did not walk away from the economy; rather, its efforts shifted from price control to dealing with environmental and other externalities and attempting to protect consumers and investors from various forms of deception.

The deregulation process arguably began in 1968, when the Antitrust Division of the U.S. Department of Justice challenged the Securities and Exchange Commission’s practice of setting minimum brokerage commissions for transactions on the New York Stock Exchange. After a good deal of subsequent debate and deliberation, and despite strong opposition from the brokerage industry, the fixed-commission regime ended on May 1, 1975. The deregulation process then shifted and broadened, as documented here in studies of seven affected industries,

Deregulation had important economic consequences for suppliers, buyers, and workers in each of the affected industries, and most of the readings in this collection explore those consequences. It is important to note at the outset, however, that deregulation of even a single industry is a significant political event, as it involves not only the reversal of policies established by prior statute but also the surrender of governmental powers, often via new statutes. There is considerable inertia in U.S. legislative actions, and government officials do not give up power lightly, so such reversals can occur only when a substantial coalition of interests believes that regulation

is serving it less well than the market would. Deregulation of multiple industries in a relatively short period of time is an even more significant political event, and it suggests the emergence of a broad consensus, informed by experience with regulation, that economic regulation is broadly inferior to markets in a wide range of circumstances.

Since economic regulation and deregulation in the U.S. were multi-sector processes, we begin in Section II with studies that consider the broad determinants of such basic institutional changes. For deregulation to occur, the rationale for the initial regulation must have lost support, perhaps because the implementation of regulation proved deeply unsatisfactory to a substantial coalition of the interests that initially pressed for its establishment. We begin with a statement of the public interest rationale for economic regulation—the need to prevent social losses due to monopoly pricing—by the White House Council of Economic Advisers. We then offer George Stigler’s seminal statement of the private interest rationale for regulation. Stigler argued that industries often, if not always, seek regulation to limit competition and restrict entry in their self-interest. He further contended that because those benefits of regulation accrue to an easily organized few, while the corresponding costs (in the form of higher prices or lower service quality or both) are spread thinly over many and are important to none, industries that are able to use the political process to obtain and retain the sort of regulation they want form the foundation of the regulated sector of the economy.

However, the imposition of regulation in certain industries and its subsequent elimination pose challenges to both these views—particularly the notion that industries are able to obtain and retain the sort of regulation they want. Thoughtful papers by Sam Peltzman and Roger Noll written after the main wave of deregulation had taken place in the 1970’s and 1980’s explore the rationale for deregulation in general. The papers in Sections III – VIII provide evidence on whether in seven particular industries deregulation served the public interest, the interests of corporations that had been regulated, or other special interests.

The articles collected here have been selected to provide fact-based responses to the questions “Why was this industry deregulated?” and “What happened as a result of deregulation?” We focus on a set of U.S. industries in which deregulation has been

important because we know what happened to them best, though deregulation and its policy cousin privatization occurred in many other developed and developing nations in roughly the same period. We chose the industries covered because of their importance and because highly analytical economic and political studies of the causes and consequences of their deregulation were available.

Two omissions deserve brief mention here, however. We do not cover the regulation of crude oil prices during the 1970s because that Federal price control regime was part of a short-lived response to an inflationary crisis (though it produced some very long-lived litigation) and because it has received relatively little analytical research attention. We do not discuss the supposed “deregulation” of the financial sector, despite its importance in contemporary political rhetoric, because the financial sector was never subject to the sort of detailed price controls that were applied to the industries we do consider, and its “deregulation” was thus of a different character. In addition, the academic dust on regulatory change in the financial sector has not yet settled, though the sector does seem to have gotten much the sort of regulation it wanted before and after passage of regulatory reform legislation in 2010.

Most basic economics texts circa 1975 predicted two possible outcomes from deregulation. If regulation had mainly served to constrain monopoly power in the public interest, the prediction was that prices would rise after deregulation and service quality would decline. On the other hand, if regulation had mainly served to limit competition in the interest of the regulated firms, the prediction was that that deregulation would lead to falling prices and improved service. In the latter case, deregulation would serve the public interest and would be adverse to the interests of the formerly regulated firms by reducing prices, profit margins, returns to investment, and, often, firm growth.

But the papers in this collection make it clear that reality is not remotely that simple. These papers use a variety of data sets and analytical methods to ferret out industry-specific complexities in the response to the elimination of limits on entry and restrictions on the supply and pricing of services. Reading these articles one learns that there are often multiple groups of different private interests affected by deregulation, not just one group of homogeneous buyers and another of homogeneous sellers. Some

interests may gain a lot and some may lose substantially from the elimination of price controls, even if the total gains to society are relatively small.

We have found that across the seven industries examined here, the causes and effects of deregulation have varied much more than expected from public interest or Stiglerian theories of regulation. All these industries have somewhat different patterns of response that either of these simple theories implies. Notable highlights from these patterns include the following:

- Since railroads generally had some market power based on the limited number of tracks between any two points, it was widely expected that rail rates would rise after deregulation. They didn't.
- Trucking was deregulated despite strong and unwavering opposition from regulated trucking firms and the Teamsters Union. Subsequent events showed that their opposition was rational.
- Airlines were not particularly profitable before deregulation. Nonetheless airfares declined substantially after deregulation and service increased.
- Natural gas production was generally viewed as competitive by the suppliers if not by the regulators. Nonetheless, gas prices rose after deregulation – and most observers applauded this development as necessary to eliminate shortages.
- Telecommunications deregulation was mainly done by the courts. A later attempt to enhance competition by legislation is generally viewed as a failure.
- No Federal legislation ever mandated the creation of (mainly) deregulated and competitive wholesale electricity markets. Nonetheless, such markets serve about two-thirds of the nation.
- Cable television has been regulated and deregulated twice by changes in Federal statutes and regulatory agency orders. Both prices and the number of cable subscribers increased after deregulation.

Even so, a careful reading of these papers reveals some methodological similarities across industries. Those authors seeking to explain the impact of deregulation generally have used historical price series to look for a “break” in price levels up or down around the time of implementation of the new deregulatory order; if

not, they seek changes in service quality and/or profitability, costs of service, or profit margins associated with deregulation. But when such data series have been lacking, studies have used interview information on what was intended and what happened, which supports less definitive conclusions.

In addition, there are also similarities across the findings in the analyses of different authors within each of the seven industries. The five studies of deregulation in rail transport services in Section II together describe the same pattern of underutilized route systems and services before deregulation and lower rates (prices), particularly for those services subject to inter- and intra-model competition, after deregulation. The five studies of interstate trucking in Section III show a similar restructuring of post-deregulation services to center on more competitive supply, lower unionized drivers' wage gains when compared to other industries, and lower freight rates. (The exception is Dorothy Robyn, who reports on the unusual political process, put in place by the Chairman of the ICC, that led to the removal of regulatory controls.)

Both railroads and truckers had been under the regulatory control of the ICC. The Act to Regulate Commerce passed in 1887 required all interstate rail service providers to adhere to posted rates agreed to by industry rate bureaus after ICC hearings had established which carrier or carriers could provide what services between each pair of points. The Hepburn Act of 1906 gave the Commission itself the power to set maximum rates. This strict set of controls began to break down when the Railroad Revitalization and Regulatory Reform Act was passed in 1976 and ended with the Staggers Act of 1980. ICC regulation of interstate trucking began with the Motor Carrier Act of 1935 and was ended with the passage of another Motor Carrier Act in 1980. With gradual opening up of markets, the ICC was left with one hearing room in its magnificent antique Constitution Avenue building until 1995, when it was shut down. (That building now houses part of the Environmental Protection Agency, a regulatory agency that did not exist until 1970.)

The Civil Aeronautics Board (CAB) met a similar fate. Based on legislation passed in 1938, the CAB regulated both entry into and exit from individual city-pair airline routes and set maximum and minimum route-specific fares. The result of

inflexible offerings with only a few firms serving any city pair was fares that by the 1970s were considerably higher than those charged on comparable unregulated intra-state routes in Texas and California. The pressures for deregulation came from the Senate staff (particularly Stephen Breyer, now Justice Breyer, on Senator Edward Kennedy's staff), the White House (the Council of Economic Advisers), and a new CAB chair (Alfred Kahn, a professor of economics on leave). The 1978 Airline Deregulation Act began the dismantling of this regulatory regime, and the Board itself was shut down in 1984. It had never managed to occupy a magnificent antique building.

The results common to the four analyses in Section IV of airline deregulation and the shutdown of the CAB included lower fares for passengers on long distance routes and more efficient hub and spoke route systems, but no reduced volatility in passenger fares and, therefore, earnings. While regulation may have been intended to "stabilize" earnings, the deregulation of these three transportation industries was intended to serve the public interest.

The Natural Gas Act of 1938 gave the Federal Power Commission (FPC), itself established in 1930, the authority to set "just and reasonable rates" for natural gas sales for resale in interstate commerce. The gas industry was in transition from offering regional distribution of gas from shallow wells to pipeline service crossing state lines from Texas and Louisiana to East and West coast population centers. The Commission initially defined those pipelines as utilities and applied public utility costing principles to their operations, adding the cost of gas purchased at the wellhead to regulated pipeline delivery charges to obtain "just and reasonable" city-gate delivered gas rates. But in 1954 the Supreme Court in *Philips v. Wisconsin* interpreted the Natural Gas Act to require the FPC also to use public utility costing to set limits on the prices of the gas at the wellhead. The producers were seen by the Court to have market power that enabled them to set wellhead prices above competitive levels, and in the absence of regulation these monopoly field prices were seen to be passed, along with the pipelines' regulated costs, to the ultimate consumer.

The FPC struggled with the application of traditional public utility "cost of service" regulation to natural gas from widely different wells owned by hundreds of

producers. After some years it produced a price cap for Philips much higher than the original contract with the pipeline to Wisconsin. Turning then to setting caps on regional price averages to gain administrative control of its Court-determined agenda, the FPC set a ceiling on prices of gas from the Permian Basin in West Texas and New Mexico that mirrored previous unregulated wellhead prices. This held prices constant when both cost and demand increases would have led to a doubling or tripling of market prices. Shortages of gas developed, as supplies fell below growing demands or were shifted to unregulated intra-state markets. The FPC reacted in 1975 by setting a national price cap above market-clearing levels. The Natural Gas Policy Act of 1978 put in place a phased system of removal of price controls on existing sales, with new gas, deep gas, and off-shore gas out from under caps first.

By 1986 this “vintaging” had depleted sources still subject to price controls, and Order 451 of the Federal Energy Regulatory Commission (FERC), the successor agency to the FPC, finally eliminated all wellhead price controls. In that same year, in response to two D.C. Circuit court *MPC* decisions, FERC Order 436 allowed pipelines to become open access common carriers, free of transport price ceilings by 1990.

The impact of removal of price controls after 50 years of The Natural Gas Act reflects both different institutions and different purposes than those involved in transportation. Articles by Edmund Kitch and Richard Pierce in Section V show that, reacting to mistaken judicial initiatives to control monopoly (which did not exist) resulted in prices that were too low. The paper by Lucas Davis and Lutz Killian estimates the full cost of the resulting shortages. Phased deregulation, with “vintaging”, caused volatility that took a decade to recover from. The other two studies in this section assess public interest gains from deregulation.

The structural conditions associated with deregulation in transportation and natural gas – a specialized regulatory agency, statute changes, administrative actions to reduce price and entry controls before deregulation – were not present when telecommunications restructuring took place in the 1970s and 1980s. The end-to-end monopoly service and equipment provider, AT&T (the largest utility in the country, perhaps in the world) had been regulated since 1934 by the Federal Communications

Commission (FCC). Rates for local calls were regulated on a cost-of-service basis by highly reactive state commissions, and FCC response to AT&T's long distance rate proposals was colored by the widely shared notion that earnings on long distance calls could be used to subsidize local rates in order to make telephone service universally affordable. The Antitrust Division of the Department of Justice emerged as a player when other firms tried to compete with AT&T's long-distance services, and from 1974 through 1982 it pursued a monopolization case against AT&T based on its allegedly predatory responses to competitive entry into the more profitable long-distance markets. The case was settled by negotiation in early 1982 on the presumption that AT&T, divested of its local operating companies and its manufacturing operations, would be competitive against the previously excluded long-distance entrants, and the FCC would withdraw price controls on long-distance in favor of reliance on market competition.

That scenario would have resembled deregulation in other industries, but it was not realized, as both the Federal Court that oversaw the settlement (formally, a Consent Decree) and the FCC took highly controlling positions on prices and entry going forward. Like the railroads beginning in 1887, long-distance suppliers were required to adhere to filed tariffs, which were available to their competitors. In addition, the local operating companies that were divested at the start of 1984 were barred from entering long-distance markets. These restrictions persisted until the enactment of the Telecommunications Act of 1996. That Act tried, and largely failed, to open the provision of local wireline telephone service to competition.

The five papers on telecommunications in Section VI make it clear that there has been no substantial statutory reduction in the authority of the Federal Communications Commission. Rather, the antitrust decree changed the long distance market structure from monopoly to "few" separate carriers, a structure that has continued into the wireless era. Usage charges are now more in line with costs, but not as a result of classic deregulation. The markets for "terminal equipment" – telephones and related gear – were deregulated, but this was accomplished not by legislation but by decisions of the FCC between 1968 (*Carterphone*) and 1976 (*Computer II*).

Traditionally, integrated electric utilities generated, transmitted, and distributed power. They sometimes bought and sold power among themselves, but they had no obligation to buy from non-utility generators until the Public Utility Regulatory Policy Act (PURPA) of 1978 obliged them to buy from generators using specified technologies at state-regulated rates. In hopes of encouraging broader wholesale market competition, in 1996 the FERC, using authority granted to it in the Energy Policy Act of 1992, issued Orders 888 and 889 that required transmission systems to become common carriers, obliged to transmit power for any generator at posted rates. The FERC's Orders 888 and 2000 (issued in 1999) then provided a structure for the voluntary creation of wholesale markets in which power could be bought and sold.

Thus the FERC itself has led the way in enabling the entry and expansion of non-utility generators and the emergence of competitive wholesale markets that now meet about two-thirds of U.S. demand. But the Commission retains and routinely exercises regulatory authority. In addition, state regulators' authority over retail prices has not been reduced. Most states have been slow to embrace entry into retail markets dominated by a long-standing public utility. Prices to most retail customers are still set by state regulators applying traditional public utility rate-making principles. In short, while there has been structural reform in much of the country, but, according to the papers below, these changes hardly constitute deregulation in the behavioral mode of the interstate transportation industries. In 2002 the FERC published a proposed *Standard Market Design Rule* that would have required the creation of competitive wholesale markets everywhere. It withdrew that proposal in 2005 under political pressure, however, and the regulatory reform movement in electricity has remained stalled.

The cable television regulatory structure has been in important respects the least stable. The industry was initially regulated by the Federal Communications Commission beginning in 1972. The FCC voluntarily phased out most regulation by 1980, and the Cable Communications Policy Act of 1984 ended federal, state, and local regulation of almost all cable systems. In 1992, however, the Cable Television and Consumer Protection Act, passed over the President's veto, re-established local regulation of basic service and federal regulation of higher service tiers (bundles of more desirable channels). But the final step in this saga was taken in 1996, when the

Telecommunications Act ended all federal regulation by 1999. During the initial period of deregulation nominal prices rose, but, because quality also increased, output (as measured by cable penetration) also increased. Again, this has not been classic deregulation in the public interest but rather, as the studies in Section VIII indicate, a long Inside-The-Beltway war between over-the-air broadcasters and the cable industry with various program provider groups allied on each side, during which the location of the front line shifted on several occasions.

Looking across the studies collected here, some important determinants of differences in the effects of deregulation can be identified. If regulated companies face competition on the margin from unregulated companies, for instance, their performance resembles that of the unregulated competitors. The effects of deregulation in this case may be difficult to determine. If an industry is characterized by rapid technological improvement, regulated companies may find it hard to keep up because their regulators find it hard to keep pace with appropriate changes in controls. There are numerous instance of this dynamic in telecommunications and cable television and even in railroads. In addition to fringe competition and technological change, the effects of deregulation are shaped by differences in regulatory practices and in firm concentration. If there are only two resulting deregulated service providers, rather than twelve, price patterns after deregulation are going to be less competitive. The careful reader will no doubt identify other important determinants of post –regulatory market performance.

The careful reader will also note a stream of post-regulation similarities across the studies here of the seven industries. One finding that emerges frequently, for instance, is that the process of regulation itself raised costs and, often, led directly to lower service quality. We will not say more about post-regulation similarities here, however, for fear of distracting the reader from the rich detail of the effects of deregulation on firms, workers, customers, and other interests in the deregulated industries. All that can be learned only from reading the articles assembled here one by one.

We would note, however, that in compiling this collection we have become more appreciative of the benefits of deregulation, even when the resulting competition is highly imperfect by textbook standards. And we have become more aware of the costs of

regulation, even when managed by capable, well-intentioned officials. We would most emphatically not reverse the achievements of the deregulation movement.