

CHAPTER 5

The Burden of Economic Regulation

FOR MANY DECADES, the Federal Government has regulated the prices and the conditions for entry in certain sectors of the U.S. economy. This type of regulation, often called “economic regulation,” was broadly applied to the transportation, communications, and financial sectors of the economy. Whatever historical purposes were served by economic regulation, there is an increasing consensus that much of this Federal regulation no longer serves the interests of the contemporary economy. Indeed, over the last several years a substantial part of this economic regulation has been relaxed or eliminated.

A second form of regulation, “social regulation,” is addressed to situations where unregulated activity may pose significant threats to public health, safety, or the environment. Although there is an increasing consensus that economic regulation should be substantially reduced, no such consensus exists concerning social regulation. Also, unlike economic regulation, the magnitude of social regulation has grown rapidly since the mid-1960s with the passage of extensive environmental and safety legislation.

Economic regulation has diminished in recent years due to a variety of deregulation measures. Substantial evidence is now available concerning the performance of industries that have experienced full or partial deregulation. This chapter summarizes the history of Federal economic regulation, its rationale, its impacts, and the effects of recent laws designed to ease economic regulation. The chapter also identifies some opportunities for further deregulation. Special attention is given to the economic regulation of energy, transportation, communications, and financial markets.

A BRIEF HISTORY OF ECONOMIC REGULATION

The first broad body of Federal economic regulation was established in 1887, when the Congress created the Interstate Commerce Commission (ICC) to resolve the increasing controversies between the railroads and shippers. Most of the regulation of other sectors, except for energy, was established by the end of the 1930s and re-

flected efforts to deal with problems similar to those that led to the creation of the ICC. The agencies created in the 1930s tended to operate in much the same way as the ICC, and the outcome was much the same.

Economic regulation often evolved from a dispute among several groups. For example, the Federal Communications Commission (FCC) was created to resolve disputes among users of the broadcast spectrum. The Civil Aeronautics Board (CAB) was created to resolve a dispute among several Federal agencies concerning the administration of air-mail contracts.

Congress delegated direct resolution of these disputes to an independent agency with very general authority. The typical "public convenience and necessity" standard cited in the enabling legislation provides no direct guidance about how the regulatory agencies should resolve disputes. The independent commissions are essentially quasi-judicial institutions that have developed their own bodies of administrative law.

The initial regulations of the independent agencies often served the interests of the regulated industry. For example, some scholars contend that the ICC, by initially reinforcing the railroad cartels, caused higher average prices and reduced the variance of prices. For a long time, both the CAB and the FCC restricted entry to the number of firms operating at the time these commissions were created.

The initial regulation led to more regulation that served to protect the interests of the initially regulated firms. For example, ICC regulation was extended to trucks, buses, freight-forwarders, and barges, thus restraining the developing competition to the railroads. FCC regulation was extended to cable television, protecting broadcasters using the frequency spectrum.

Over the long run, many economic regulations have not served the interests of either producers or consumers. The development of excess capacity, relatively high wages, restraints on technological improvements and operating practices, and competition outside the regulated environment led to the lower-than-average rates of return in many of the regulated industries. Consumers have often been adversely affected by higher prices and restrictions on service.

One other pattern of economic regulation was introduced in the 1930s. A belief that the depression was caused by excessive competition provided a rationale for many laws and regulations that directly restricted entry, output, and competition. The broadest such law, the National Industrial Recovery Act, was declared unconstitutional; other similar legislation, such as the Agricultural Adjustment Act of 1938, is still in force. One might argue that the several regulatory commissions and laws approved in the 1930s achieved their intended

effect of raising prices. A later generation questioned whether this effect was desirable.

THE TRADITIONAL RATIONALE FOR ECONOMIC REGULATION

The two traditional justifications for economic regulation have been to preserve the potential economic efficiencies associated with natural monopoly in some industries and to eliminate the inefficiencies thought to be associated with excessive competition in others.

Natural Monopoly

A *natural monopoly* exists when the entire relevant demand for a good or service can be satisfied at the least total cost by a single firm. At the local level it is probably wasteful to have duplicate distribution systems to provide telephone, electric, gas, and water services. Among industries regulated at the Federal level, major gas pipelines and high-voltage electric lines are often considered natural monopolies. Long-distance telephone transmission may also be a natural monopoly in areas of low density. Railroads are a potential natural monopoly only for that declining share of rail traffic for which the shipper does not have an effective choice of carrier or mode of transport.

Such industries present a dilemma. Competition may result in unnecessarily high production costs through duplication of facilities, but an unregulated monopoly may not act in the public interest. Without regulation, a monopoly would probably set prices too high and produce too little, with consumers willing to pay more for additional output than the cost of supplying that output. A typical solution to this dilemma is maximum price regulation. The primary objective of price regulation is to set the monopoly's price as close as possible to incremental cost while still assuring the monopoly a market rate of return on its investment.

The growth of demand or the introduction of substitutes for a product can often transform a natural monopoly into what—in the absence of regulation—could become an effectively competitive industry. Oil pipelines, for example, are often assumed to be natural monopolies. However, these pipelines now face competition from other pipelines and other modes of transportation. Regrettably, price regulation often continues long after it is efficient, restricting the emergence of a competitive market. The history of the railroads provides a compelling illustration. In many parts of the country rail lines were few and far between in the 19th century. But as the market for transportation services grew, and as technology developed, automobiles, buses, and airplanes provided increasing competition for passenger traffic, and trucks, barges, and pipelines provided increasing competition for freight. The natural monopoly justification for

regulation was probably not applicable in most rail markets by the middle of the 20th century.

Even in markets where elements of natural monopoly still exist, government intervention will not necessarily produce a more efficient use of resources. Increasingly, analysts are coming to recognize that, just as there are market imperfections, there are also government imperfections that must be considered in making public policy choices. The relevant tradeoffs are not between imperfect markets and flawless government regulation, but rather between markets with imperfections and regulation which is imprecise and sometimes counter-productive.

Excessive Competition

The second traditional justification for economic regulation is that unfettered markets result in *excessive competition*. This justification was used for regulating railroads in the late 19th century and other industries in the 1930s. A common element in early discussions of excessive competition was that without regulation, unrestrained rivalry among firms would result in losses for some or all of them and that adequate production of an otherwise viable product would prove unsustainable. This argument, which was often rather vague, failed to note that business losses are not a sufficient basis for government intervention. Losses and business failures are a normal part of the operation of competitive markets; they act to eliminate inefficient firms and to shift production to meet changes in consumer demands.

While the concept of excessive competition was not generally well defined, it has now come to refer to at least four possible sources of market imperfection: natural monopoly, cyclical demand with imperfect capital markets, predatory pricing, and suboptimal product quality.

As explained earlier, where natural monopoly conditions exist, competition among several firms can lead to higher costs because of wasteful duplication.

A second interpretation of excessive competition is based on the argument that certain industries, particularly those with cyclical demand and heavy fixed investment, are prone to excessive price fluctuations. According to this argument, firms are forced to close down during recessions and then unnecessarily incur large start-up costs during recovery because of alleged imperfections in capital markets. These wasteful shutdown and start-up costs are avoidable, it is argued, if government regulation sets minimum prices or allows firms to do so.

A third definition of excessive competition focuses on the concept of predatory pricing. Unregulated competition in some markets is alleged to result in monopolization by a firm that engages in predatory

pricing—setting prices below cost in order to drive out competitors. To succeed, a predator must outlast its rivals and barriers must exist to prevent the entry of new competitors once the predator raises prices. Regulation to prevent firms from charging excessively low prices is intended to prevent such predatory practices and hence the higher monopolistic prices that would prevail once the predator has eliminated its competitors. No consensus exists among economists that such predatory tactics are effective. Indeed, many economists believe that apparently “predatory” behavior, if ever successful, is a manifestation of cost advantages or an enhanced ability to bear risk.

A fourth interpretation concerns the alleged tendency of certain competitive markets to produce goods or services of inadequate quality, safety, or reliability if consumers are imperfectly informed about those characteristics. For example, it has been argued that under competitive pressure banks might choose excessively risky investments in order to offer their customers high rates of interest on deposits. Similarly, some have claimed that airlines may skimp on safety in a highly competitive market. Even if such claims were true, it does not follow that restricting competition will necessarily improve quality or safety. Moreover, there are more direct ways of addressing these potential market defects, such as Federal Aviation Administration airplane safety inspections and Federal Deposit Insurance Corporation guarantees.

PROBLEMS OF ECONOMIC REGULATION

Most economists agree that the regulation of price and entry in markets that would otherwise be competitive is inefficient. Regulation of transportation, for example, has generally resulted in higher prices, higher production costs, and slower technological growth. Regulation of oil and gas prices has occasionally kept prices too low, causing shortages and inefficient choices among competing fuels.

Deregulation usually leads to a reduction in cost to the marginal user, whether the discarded regulations established maximum or minimum prices. A price kept below the market price by regulation has the effect of creating a system of nonprice rationing in which excluded consumers are forced to pay higher prices for substitutes. The elimination of maximum price ceilings may lead to higher average prices but lower prices to the marginal consumer. Exceptions to this conclusion are where natural monopoly conditions exist or where regulations lead to some cross-subsidy among consumers.

In some cases, price regulation leads to an excessively high level of some service characteristic, because firms are prevented from competing on price. Because of price regulation of airlines by the Civil

Aeronautics Board, for example, the airlines competed primarily through frequency of flights, which led to low load factors and considerable excess capacity.

Direct economic inefficiencies are not the only costs of rate and entry regulation in inherently competitive industries. Some additional resources are used to lobby politicians and regulators for favorable regulatory actions. The greater the benefits to groups created by regulation, the more such groups have an incentive to spend to block deregulation. The magnitude of the benefits defended are often substantial. Trucking firms have sold operating rights, initially granted them by the ICC, for over \$20 million, and the broadcast rights of individual television stations have sold for substantially more.

The argument that full deregulation is the appropriate policy for industries with competitive market structures applies strictly only in the long run. To minimize the risk of adverse short-run consequences from deregulation, most deregulatory initiatives have called for either partial deregulation or a gradual transition to full deregulation. The Civil Aeronautics Board was not immediately abolished by the Congress, and it retained some temporary domestic authority through 1982. The Staggers Rail Act provided railroads with greater price flexibility but did not provide for eventual elimination of all price and entry controls. The Natural Gas Policy Act provides for only partial deregulation of natural gas prices.

It is not clear how much information about the long-run benefits of deregulation can be obtained by observing the process of gradual or partial deregulation. For example, minimum price regulation may cause excess capacity in an industry. When deregulation occurs, some firms in the industry may go bankrupt. This may lead some to consider deregulation a failure and to propose re-regulation. Once the excess capacity is eliminated, however, the industry may operate profitably without any regulation.

Economists can offer one important piece of advice on partial deregulation: relaxing price restrictions without also relaxing entry restrictions may cause problems, such as developed in the air freight market. Eliminating minimum price constraints while barring entry may result in predation. Eliminating maximum price restrictions without allowing free entry may result in monopoly pricing.

Competitive economic forces, while powerful, are not the only means available to consumers of products from deregulated industries to defend themselves. Antitrust policies may also be used to protect consumers against the abuses regulation is sometimes claimed to prevent. The antitrust laws prohibit anticompetitive behavior. Since regulated industries have often enjoyed broad exemptions from the antitrust laws, a review of the antitrust policies per-

taining to these industries should accompany the deregulation process. At the same time, however, it is important to avoid misusing the antitrust laws to maintain inappropriate types of regulation.

ENERGY POLICY

The pricing and allocation of energy resources was a frequent focus of public policies over the last decade. Many of these policies reduced the long-run supply of these important resources. In the last few years, several measures have been taken to remove the inefficiencies and uncertainty caused by these policies.

STEPS TOWARD A MARKET-ORIENTED OIL POLICY

In January 1981, President Reagan ended the petroleum price and allocation controls that were previously scheduled to expire in September 1981. Oil prices were first directly controlled as part of the general system of wage and price guidelines imposed in 1971. The data on subsequent production, drilling, consumption, imports, and the energy/gross national product (GNP) ratio suggest that oil price deregulation has had many beneficial effects.

Despite the disincentives provided by the "windfall profits" (excise) tax on crude oil, the data suggest that decontrol has reversed the steady decline in production (exclusive of Alaska) observed during the period of price controls. As of October 1982, there were seven consecutive monthly production increases over year-earlier levels, a series of increases not observed in the United States for 10 years. Reported oil well completions in 1982 were 49 percent higher than in 1980, despite the recent decline in real oil prices.

Since full decontrol, U.S. consumption has decreased by almost 11 percent. While part of this decline is due to the recession, a major cause is the continuing adjustment to the price increases of the 1970s. Since decontrol, the energy/GNP ratio has declined by over 5 percent and imports (net of additions to the Strategic Petroleum Reserve) have declined by about 34 percent. The elimination of the regulatory framework for petroleum prices removed the artificial incentives to import crude oil and residual fuel oil. The weakening of oil prices has contributed to a stronger dollar and, thus, to lower prices on all imported products.

NATURAL GAS PRICING AND ALLOCATION

Following the 1954 Supreme Court decision in *Phillips Petroleum Co. v. Wisconsin*, the wellhead prices of natural gas sold in interstate commerce were regulated by the Federal Power Commission (FPC). Since intrastate gas prices were not subject to regulation, a two-market

system resulted. Price controls, when effective, led to shortages in the interstate market both because the interstate pipelines could not compete effectively against intrastate pipelines for gas supplies, and because artificially low prices encouraged consumers to demand more natural gas than they would have otherwise.

Rising oil prices in the 1970s triggered occasional gas shortages in interstate markets. Industrial use of gas was curtailed during periods of shortages, and many potential users of gas, both at the industrial and residential level, were proscribed from using gas. The abnormally cold winter of 1977 produced a severe interstate gas shortage, resulting in numerous factory shutdowns, thousands of layoffs, and other serious problems. It was evident by the mid-1970s that the existing system of wellhead price controls produced serious inefficiencies causing the underproduction of gas for the interstate market and the misallocation of gas between the interstate and intrastate markets and among different users within the interstate markets.

The Natural Gas Policy Act of 1978

The natural gas regulatory environment was changed substantially by passage of the Natural Gas Policy Act (NGPA) in 1978. This act was intended to encourage production by deregulating the prices of newly discovered gas while restraining the growth of average gas prices through permanent controls on the price of older gas. The Federal Energy Regulatory Commission replaced the Federal Power Commission, and price controls were extended to gas sold in intrastate markets. Over twenty regulated categories of gas were created, each with its own initial ceiling price and rules for price escalation over time.

The NGPA provides for the phased deregulation of the wellhead price of most gas discovered after 1977, which should account for 40 to 60 percent of all gas in January 1985, while a smaller volume of gas is scheduled for deregulation in July 1987. A small amount of high-cost new gas was deregulated under the NGPA in 1979. Most gas to be deregulated in 1985 or 1987 is fixed until those dates at a price, in inflation-adjusted dollars, leading to the oil equivalent price level existing in 1978. The NGPA also includes "incremental pricing" provisions intended to allocate high-priced gas to industrial users, thus preserving lower prices for other users. Along with the NGPA, the Congress passed the Powerplant and Industrial Fuel Use Act; this law authorizes nonprice rationing of gas to counter the problems inherent in continued price controls.

As with many efforts to regulate prices, the NGPA has created numerous problems. Instead of producing the lowest cost gas supplies first and moving successively to higher cost sources, producers are induced by the different price categories to produce high-cost gas

first in many cases, and generally to shift production efforts away from cost-minimizing alternatives. The initial boom in the production of deep gas illustrated this effect.

Further problems arise from the control of the prices of new gas until those prices are decontrolled in 1985 and 1987. Since oil prices have risen substantially since 1978, partial decontrol will generate a continued increase in delivered gas prices in 1985 as consumers bid up gas prices to levels equivalent with those of close substitutes such as oil. Although real gas prices have risen and real oil prices have fallen in the last year, average real domestic wellhead prices of gas will rise by about 28 percent between 1983 and 1985 if there is no change in the NGPA according to a preliminary Department of Energy estimate.

The price of decontrolled gas is averaged with the price of controlled gas in determining the price to gas users and the demand for gas is affected by prices for fuel substitutes. This is reflected in preliminary Department of Energy estimates which indicate that the average 1985 prices of gas under the NGPA are not likely to differ greatly from those that would evolve under full decontrol. Under the partial decontrol authorized by NGPA, the prices of decontrolled gas are bid up somewhat above the levels that would be observed in a fully decontrolled market. Indeed, even now decontrolled deep gas is being sold at the wellhead for over \$7.00 per million cubic feet. The preliminary Department of Energy estimates suggest that the average 1985 price under full decontrol will be \$3.78 per million cubic feet (both in 1982 dollars).

The higher prices to be paid for decontrolled gas in 1985 and thereafter suggest that the average gas consumer will not benefit from the remaining controls, and that the primary beneficiaries will be the producers of decontrolled gas. Under the NGPA, however, different groups of consumers will fare differently. Pipelines with access to substantial quantities of price-controlled gas will be able to bid deregulated gas away from other pipelines. This is because the higher prices on decontrolled gas can be averaged with the lower prices paid for gas still subject to controls.

This means, for some period, that consumers in different regions may face different average prices, and that some gas will be reallocated artificially because of differential access to controlled gas. In particular, the intrastate pipelines will have relatively little access to controlled gas, and so some amount of gas will shift out of the intrastate market into the interstate market. Interstate pipelines also will vary in their ability to bid for decontrolled gas, depending on their access to controlled gas and the actions of local regulatory authorities. In summary, in addition to the waste in gas production caused by the

NGPA, both controlled and decontrolled gas will be allocated inefficiently among pipelines. The preliminary Department of Energy estimate of the present value of the efficiency gain that would accrue to the economy from full gas decontrol in 1983, relative to the partial deregulation authorized by the NGPA, is about \$4.2 billion (in 1982 dollars).

The prospect of a price increase in 1985 may provide an impetus toward extension of the NGPA price controls beyond 1985. Such an extension would sustain the inefficiencies experienced as a result of the NGPA. The preliminary Department of Energy estimate of the present value of the efficiency gain of full decontrol in 1983, relative to extension to 1995 of price controls now imposed by the NGPA, is about \$27 billion (in 1982 dollars). Because gas production would be reduced by extension of controls, oil consumption would probably increase. The preliminary Department of Energy estimate is that extension of gas price controls would increase oil import levels by about 288,000 barrels per day between 1983 and 1995.

Reported gas well completions in 1982 increased 21 percent over 1980, while under full decontrol, reported oil well completions increased by 49 percent in the same period. Total proved gas reserves (excluding Prudhoe Bay) declined over one-third during the 1970s. The extension of controls thus would have very serious implications for future domestic gas reserves.

Recent Natural Gas Price Developments

Natural gas prices have risen sharply in recent months because gas controlled at relatively low prices is gradually becoming a smaller component of total production and because some contracts fixing very low prices have expired. Moreover, the NGPA allows price increases for some gas beyond a simple inflation adjustment. While it appears that gas prices in some regions have reached short-term market clearing levels, that is not true for other regions. On average, gas prices are still apparently below market clearing levels—hence, the expected price increase in 1985 under the path outlined by the NGPA.

Some observers have noted that pipelines are buying expensive gas while gas subject to lower price ceilings remains unsold. They have concluded from this that gas markets are “irrational,” and that full price decontrol would not work effectively. This analysis is questionable. Under “take-or-pay” contracts, pipelines agree to pay for a given volume of gas whether or not they resell (“take”) it. Since price controls have prevented pipelines from competing for gas on the basis of price, they compete on the basis of contract terms. Increased “take-or-pay” contractual requirements are one form of such nonprice competition. This behavior is a rational response to the ar-

tificial constraints imposed by price controls and the general expectation of future shortages. In essence, increased "take-or-pay" requirements are a way for pipelines (and implicitly their customers) to buy insurance against future shortages. Pipelines with high levels of "take-or-pay" commitments must now take and pay for relatively expensive gas, even though "cheaper" gas is available. This is "irrational" only in hindsight since surpluses of gas exist. If shortages had developed instead, the use of "take-or-pay" commitments would look quite rational and "farsighted."

EMERGENCY PREPAREDNESS

Conditions in the world oil market and preceptions about the effects of supply disruptions have both changed substantially in the last several years. Trends in world oil production and consumption are similar to those of the United States. World (non-Communist) consumption fell from 51.5 million barrels per day (mmbd) in 1978 to 45.5 mmbd in 1982. Production outside of the Organization of Petroleum Exporting Countries (including Communist nations) increased from 30.3 mmbd in 1978 to 34.3 mmbd in 1982 (for the first 10 months). Furthermore, excess production capacity in OPEC has increased to at least 8.5 mmbd. It is likely that a future oil supply disruption, should one occur, would have smaller proportionate price effects than those caused by disruptions during the 1970's. Both the increasing geographic diversification of production and the presence of substantial excess production capacity would mitigate the effect of future disruptions.

The threat to use oil production as a political weapon may be less effective than was previously perceived. It is very difficult to "target" individual nations with such a weapon because the international oil transport industry has substantial capacity to transfer oil among nations. This is why the United States and the Netherlands, despite their status as the intended targets of the 1973 embargo, faced the same prices for imported oil as other oil-importing nations. Gasoline lines in the United States were caused by the U.S. regulations. Equally important, oil producers cannot impose large penalties upon others without imposing substantial revenue losses upon themselves.

The policies of this Administration reflect the view that preparation for disruptions in energy supplies can best take place through the operation of market forces, and that price adjustments present the most effective mechanism for dealing with such disruptions when they occur. Minimizing the aggregate adverse effects of energy supply disruptions is most efficiently accomplished by allowing prices to allocate available supplies to their most productive uses and by encouraging market forces to increase production of substitute fuels.

Price and allocation controls only redistribute some of the adverse effects of the disruption away from politically favored groups, therefore making matters worse for other groups. In the aggregate, price and allocation controls would exacerbate the adverse effects of the disruption.

Standby controls, even if never implemented, are harmful because they increase the perceived likelihood that controls will be imposed and thereby deter private preparedness. This is why the President vetoed the standby controls legislation in March 1982.

Present policies also reflect a recognition that firms may have insufficient incentives to prepare for energy supply disruptions, in substantial part because of past government policy. Previous price and allocation controls had the effect of penalizing those who had prepared for disruptions and subsidizing those who had not. Because of governmental responses to energy supply disruptions in the past, and the recent congressional proposal to establish standby price and allocation controls, firms must regard as substantial the likelihood that controls would be imposed once again, despite this Administration's firm commitment to avoid such policies. This expectation discourages both those who expect to benefit from controls and those who expect to have their supplies appropriated from preparing sufficiently for a disruption beforehand.

In recognition of this perverse effect of past policy, the Administration is striving to build up crude oil stocks in the Strategic Petroleum Reserve (SPR) at an efficient rate. Built up to only slightly more than 100 million barrels from 1977 until early 1981, the SPR now contains over 290 million barrels and is growing steadily toward the planned level of 750 million barrels. The SPR is intended to supplement, not substitute for, private sector stocks; accordingly, it would be used only in the event of a severe disruption. Once a decision was made to use SPR crude oil, it would be sold at market-clearing prices to whomever wished to purchase it. The Strategic Petroleum Reserve Plan submitted to the Congress in December 1982 contains a provision allowing the Secretary of Energy to reserve for special groups faced with extraordinary circumstances up to 10 percent of a given period's drawdown; oil allocated under this provision would be priced at the level established in the most recent competitive auction of SPR crude oil. This provision is not intended as a subsidy for particular groups. The policy of this Administration to fill the SPR at a steady rate will move energy security preparedness in the United States toward a more optimal level. To the extent that the availability of SPR crude oil, combined with other energy policies and programs, enables future Administrations to resist pressures for price and allo-

cation controls during a disruption, the SPR may enhance private sector preparation as well.

Except to the extent that use of foreign energy supplies is increased artificially by price controls and other adverse policies, it is not the policy of this Administration to reduce dependence on foreign energy suppliers beyond the level determined by market forces. In a world with relatively free trade and substantial capacity for reallocation of supplies, the allocative effects of a change in oil prices (other than those operating through the exchange rate) are independent of whether a given nation's use of foreign supplies is great or small. A disruption would raise prices and thus reallocate all available supplies whether foreign or domestic. Thus, a nation totally self-sufficient in energy supplies still would face the same oil prices as a nation totally dependent on foreign sources. It is the policy of this Administration to facilitate free trade while preparing for future contingencies through primary reliance on market adjustments and judicious use of the Strategic Petroleum Reserve.

TRANSPORTATION AND COMMUNICATIONS

The transportation and communications industries serve vital linkage functions in our Nation's economy. Until recently, these industries were broadly subject to traditional rate and entry regulation.

Regulation of most transportation sectors is probably not efficient under contemporary market conditions. Most transportation markets, due to the mobility of most of the capital assets of the firms in those markets, are highly contestable. That is, with nearly costless entry and exit, new firms can enter markets which have excessive prices and can take advantage of the profitable opportunities that they provide. Thus, even with significant economies of scale in a transportation market, the threat of entry by new rivals should result in near-competitive pricing of transportation services. Additionally, most transportation firms face significant intermodal competition. They are also disciplined indirectly in some cases by competitive conditions in the national or international markets in which the commodities they transport are sold. The only segments of the interstate transportation system for which regulation on a natural monopoly basis may be justifiable are the major gas pipelines, long-distance electric transmission lines, and those sections of the rail system where shippers do not have an effective choice of carrier or mode of transport.

Telecommunications, due to a high rate of technological development, is one of the most rapidly changing sectors of the U.S. economy. The Federal Government plays an active role in the telecommu-

nications industries through the regulation of common carriers and broadcasters. Several important steps toward deregulation of these industries were initiated in 1982. The government can enhance the development of these industries through continued deregulation.

EFFECTS OF AVIATION DEREGULATION

Until the late 1970s the Civil Aeronautics Board (CAB) regulated the airline industry extensively. It allocated interstate routes among the airlines and controlled airline fares on those routes. Through its control of air routes, the CAB restrained entry into the airline industry. From its inception in 1938 until the late 1970s, the CAB did not allow any new airline to enter the interstate trunk market. Largely as a consequence, air fares were higher on most interstate routes than if price competition and freedom of entry were permitted. This was reflected by the differences in fares between intrastate city-pairs that were not subject to CAB regulation, such as Los Angeles-San Francisco, and comparable interstate city-pairs that were. The latter often had fares that were as much as 60 percent higher than the former.

In 1977 the CAB began to ease restrictions on fares and entry. In 1978 the Congress affirmed and extended the CAB's measures by passing the Airline Deregulation Act. This act provided for the gradual deregulation of the airlines, with the termination of CAB domestic route authority in 1981, the termination of CAB domestic pricing authority in 1983, and the elimination of the CAB itself in 1985. Subsequent steps were taken to increase potential competition in international aviation. In July 1982 the U.S. Government entered a multilateral agreement with several European governments that permits greater flexibility in airline fares for trans-Atlantic flights than was previously allowed.

While rising aviation fuel costs, the weak economy, and the 1981 air traffic controllers strike complicate assessment of the effects of gradual deregulation, route and fare competition have increased substantially since 1977. From 1978 to 1981, the number of U.S. certificated airlines more than doubled (from 36 to 86). The market share of the major trunk airlines declined from 87.3 to 80.4 percent in the past 3 years while, during this same period, the market share of the local, intrastate, and new airlines increased from 11.5 to 16.4 percent. Aircraft departures from large, medium, small, and nonhub airports increased substantially over the 2 years immediately following airline deregulation. The percentage of domestic markets with four or more carriers grew from 13 in May 1978 to 73 in May 1981. In April 1982, 77 percent of the domestic coach traffic of the major airlines moved on discount fares, compared to 46 percent in April 1978. And while operating expenses per available seat mile rose by

73 percent from 1976 to 1981, airline revenue per available seat mile rose by only 58 percent in this same period.

Deregulation has also led to increases in operating efficiency. Airline labor cost increases have slowed and have actually declined relative to inflation. The established airlines have been forced to control their labor costs in order to compete effectively with the new entrants, many of which pay substantially lower wages. Load factors (the ratio of revenue passenger miles to available seat miles) rose from an average of less than 55 percent between 1973 and 1977 to more than 59 percent between 1978 and 1982. Airlines are now using a wider variety of airplanes to serve their diverse markets. Small markets are more likely to be served by smaller airplanes.

There is little need to fear monopoly in airline markets when the CAB expires. Several studies have demonstrated that no system-wide economies of scale exist. Since airplanes are easily transferable from one market to another, airline markets are readily contestable. The prospect of potential entry by rival carriers creates pressures for close-to-competitive fares even in markets served by only one airline.

Deregulation of airlines has established a competitive and more efficient airline industry. As air travel in the United States increases over this decade and as the busiest airports become even more congested, the new competitive structure may be challenged. Allowing competition and the full transferability of the right to land and take off at these airports may be necessary to sustain this competitive structure. Additionally, the maintenance and future development of a safe and effective national airway system is important to ensure that consumers are well served.

EFFECTS OF PARTIAL DEREGULATION IN SURFACE TRANSPORTATION

The traditional rate and entry regulation of the trucking, freight-forwarder, intercity bus, barge, and maritime industries is now largely out of date. Many studies have demonstrated the absence of significant economies of scale in these industries, weakening the "natural monopoly" rationale for entry restrictions. The high degree of capital mobility in these industries implies that individual city-pair and port-pair markets are highly contestable. The existence of intermodal sources of competition and competitive international output markets for transported commodities further reduces any misallocations resulting from monopoly behavior. Additionally, the high rate of technological development in the transportation sector renders many regulations inapplicable. The experience since the recent deregulation of airlines and the partial deregulation of surface transportation indicates that a competitive industry structure would not reduce the financial viability of firms in these industries.

Several major pieces of legislation were enacted in the last few years to reduce the degree of regulation in the surface transportation industries, including the Railroad Revitalization and Regulatory Reform Act of 1976, the Motor Carrier Act of 1980, the Staggers Rail Act of 1980, and the Bus Regulatory Reform Act of 1982.

The effects of the partial deregulation of trucking—initiated by the Interstate Commerce Commission and affirmed by the Motor Carrier Act of 1980—have proven very encouraging. Published trucking rates are now subject to large and widely available discounts. Shippers appear to be overwhelmingly satisfied with the rates, service options, and competition for their business. Service to small communities has not deteriorated, as was originally predicted by the opponents of deregulation, and most shippers in small communities also appear to support deregulation. Both the number of new firms and failing firms have increased substantially, the latter due in part to the recession. Concerns have been expressed over the last year that the Interstate Commerce Commission may be slowing the deregulatory process. For example, the percentage of applications for grants of operating authority approved by the ICC declined slightly in both fiscal years since the passage of the Motor Carrier Act. On net, however, the ICC has facilitated increased competition in the trucking industry. The chaos predicted by the opponents of deregulation has not materialized, even during a sustained recession. The experience to date clearly supports the case for more general deregulation of surface transport.

The experience since the partial deregulation of railroads is similar. Although direct evidence on rail rates is not available, the number of contracts negotiated between rail carriers and shippers (a measure of the operating flexibility granted by the Staggers Rail Act) increased from 580 in fiscal 1980 to 2907 in fiscal 1982. Railroads have increased their share of total freight traffic and have substantially increased their shipments of some commodities, such as fruits and vegetables, that were previously carried almost exclusively by trucks. Railroad profits remained essentially steady despite the sustained recession.

While recent partial deregulation of the surface transportation industries has increased the competitiveness of these industries, the opportunity remains for significant gains from further deregulation. There seems to be little danger that further deregulation would enhance the monopoly power of carriers. The high degree of capital mobility in the trucking, bus, barge, and maritime industries should prevent monopoly pricing over a sustained period, even where there is only one carrier on a route.

FURTHER DEREGULATION OF SURFACE TRANSPORTATION

For many decades, both carriers and shippers have made decisions based on expectations that the general regulatory system would continue. As a consequence, the transition to deregulation can be disruptive. The major conceptual problems of further deregulation involve the following four issues: (1) the antitrust status of the rate bureaus, (2) the vulnerability of shippers who do not have an effective choice of carrier or mode, (3) the restrictions on multimodal ownership, and (4) the restrictions on route abandonment.

As suggested below, these problems especially affect the prospects for further deregulation of the railroads.

Antitrust Status of Rate Bureaus

For many years the regional rate bureaus (composed of transportation firms) have performed the normal functions of a trade association and have provided the forum for multilateral agreements on both single-line and interline rates. These rate bureaus were exempted from the antitrust laws, and their proposed rates were generally endorsed by the ICC. The Motor Carrier Act of 1980 removed the antitrust immunity of the truck rate bureaus for single-line rates beginning in mid-1984, and established the Motor Carrier Ratemaking Study Commission to study whether the antitrust immunity for multilateral agreements on interline rates should be maintained. In testimony to this commission, the Administration supported elimination of the antitrust immunity of the truck rate bureaus. Members of the commission, which was scheduled to complete its study by the end of 1982, were equally divided on this issue at that time. Additionally, following the Railroad Revitalization and Regulatory Reform Act of 1976, the ICC restricted the authority of the rail rate bureaus to address single-line rates and restricted the carriers that could participate in an agreement on interline rates.

There remains a legitimate dispute about whether the rail rate bureaus should retain antitrust immunity when setting interline rates. The general view of economists is that further deregulation should be accompanied by the elimination of antitrust immunity. This approach would prevent the adverse effects of a carrier cartel and permit interline agreements to be treated as a joint venture. Some clarification of the application of the Sherman Act would also be appropriate to provide a stable legal environment for these interline agreements. The contrary view is that the antitrust immunity should be maintained as long as no carrier is bound by any bureau rates to which it did not agree. A multilateral agreement on interline rates may have substantially lower transactions costs on small shipments than the alternative pattern of bilateral joint ventures, and any at-

tempt to set cartel rates would be disciplined by the freedom of any carrier to set other rates. (This issue is less important for trucks, because interline traffic is now less than 15 percent of total truck traffic, and complete freedom of routes would further reduce such interline traffic. Interline rail traffic, however, is 48 percent of total rail traffic, and it is more important to maintain a process that economizes on the contracting costs for small interline shipments.) The alternative may be an undesirable situation in which rail carriers refuse small interline shipments, use trucks for shipments to points beyond their routes, or face an artificial incentive for mergers.

The "Captive Shipper Problem"

The "captive shipper problem" is what initially led to rail rate regulation. This problem was substantially reduced by the development of alternative carriers and modes but has not been eliminated. Two dimensions of this problem, however, have sometimes been misunderstood. This relation is a bilateral monopoly. Both the rail carrier and the shipper have substantial bargaining power, and it is not clear that this relation leads to rates that are generally "too high." Second, this relation does not lead to any long-term misallocation of resources as long as the price of the shipped commodity is determined in a competitive market. In any case, the sum of the rents on rail and shipper property is constant. This inherent tension suggests that it is important to avoid any effective restraint on the common ownership of rail carriers and major shippers. One alternative may be to require joint track use by competing carriers. Another alternative would be to index the rate bands now authorized for, say, another decade and to terminate these bands at that time. Unless this problem is resolved, however, some form of maximum rate regulation is likely to be maintained in the rail industry.

Restrictions on Multimodal Ownership

There no longer appears to be any case for restrictions on multimodal ownership. It is especially important to allow rail carriers to own trucking operations to facilitate container and piggyback traffic. A change in the law would be required to allow rail carriers to own barge lines. A change in the law would also be required to allow freight-forwarders to own trucks, even though trucking companies are now allowed to own freight-forwarders. The Bus Regulatory Reform Act of 1982 provides a substantially streamlined process for approving intermodal mergers not prohibited by law.

Restrictions on Route Abandonment

The primary problem of the railroads is excess route capacity, a problem that reflects a combination of increased truck competition and ICC restrictions on route abandonment. Some studies have indi-

cated that less than half of the existing rail mileage generates enough traffic to cover total costs. The Staggers Rail Act provides for more flexible procedures to resolve disputes on route abandonment. Recent highway legislation, by increasing allowable truck size, is expected to make trucks more competitive with railroads in moving low density freight. A better resolution of the route abandonment issue is probably necessary for a healthy railroad industry and an efficient distribution of freight traffic across modes.

In summary, pending a resolution of these four issues as they affect railroads, it is probably appropriate to focus any near-term legislative proposals on the other modes of surface transport and for the ICC to pursue selective rail deregulation within its existing authority. Additionally, the government should continue, through the appropriate application of user fees, to ensure that each mode of transport bears the entire costs of its operations when utilizing public facilities.

COMMON CARRIER TELECOMMUNICATIONS

Economies of scale provided the original rationale for making long-distance telecommunications a regulated monopoly. But rapid technological change has reduced the industry's natural monopoly characteristics and has paved the way for a more competitive industry structure. The growth of the market for telecommunications, due largely to the convergence of data processing and telecommunications technology, has further reduced the natural monopoly characteristics of the industry. These rapid developments in both demand and supply conditions have probably made the inherited regulatory framework inappropriate.

Major legal changes were made recently to allow increased competition. In 1982 a U.S. district judge gave final approval to a settlement between the American Telephone and Telegraph Company (AT&T) and the Department of Justice, transforming long-distance telecommunications services into a competitive market with a greater number of companies and less regulation.

In conjunction with other deregulatory steps by the Federal Communications Commission, the settlement is expected to have major benefits for both the telecommunications industry and its customers. Equal access to local facilities, which is the cornerstone of the settlement, should allow competition to act as an adequate substitute for regulation of interstate services. While the transition to equal access will take a few years, individual telephone customers will have progressively increased opportunities to make their own arrangements with AT&T's competitors in long-distance services. Meanwhile, AT&T will be allowed to develop its data processing subsidiary, American Bell Inc. While AT&T is prohibited from offering home

computer information and advertising services via its long-distance lines for 7 years, it is likely to become a vigorous competitor in other fields, such as cellular mobile radio technology. It is also likely to face increasing competition in these areas.

In 1982 an appeals court affirmed the Federal Communication Commission's power to deregulate where technological change makes regulation outmoded. Developments in data processing and transmission have tended to make many Federal and State regulations unnecessary, inappropriate, or unworkable.

BROADCASTING

The FCC regulates the radio and television industries through issuance and renewal of broadcast licenses. It promulgates guidelines on the amount of news and public affairs programming that stations must broadcast, the maximum number of commercials permissible in any time period, the recording of broadcast materials, and the ascertainment and fulfillment of community needs. As a result, broadcasters are prevented in some cases from carrying programming that listeners and viewers would prefer.

The original purpose of FCC regulation was to allocate broadcast spectrum space. The FCC allocated these valuable spectrum rights in exchange for commitments on program content. Whatever the merits of this argument 50 years ago, it may be appropriate to review this form of regulation to reflect the rapidly developing competition from cable television, pay television, and direct satellite transmission.

Recently, the FCC has made several moves toward deregulation. In 1981 the Commission deregulated most commercial radio broadcasting and attempted, subject to legal challenge, to simplify the application renewal process. The FCC is in the process of repeating this deregulatory initiative for the television industry. It will soon attempt to amend the renewal process by eliminating the following criteria for renewal: nonentertainment content, ascertainment of community needs, advertising concentration, and recording. The last Congress also considered bills to repeal many requirements, such as the "reasonable access," "equal time," and "fairness" doctrines that are costly to broadcasters and unevenly applied to the mass media. These steps would partially remove the government from the determination of broadcast content.

DEREGULATION OF FINANCIAL MARKETS

The financial service sector has been among the most heavily regulated areas of the economy. Price regulation, entry restrictions, and portfolio regulation were pervasive in both the banking and securities

industries. Substantial and numerous innovations in the financial sectors in the last decade largely preceded and were later facilitated by recent partial deregulation.

DEPOSITORY INSTITUTIONS

The present structure of regulatory restraints on commercial banks and other depository institutions was imposed primarily in response to the collapse of the banking system in the 1930s. A common interpretation of the events at that time is that the banking collapse was the result of an unsound banking structure which caused too much competition. Competition among banks was thought to force them into paying high interest rates for deposits, which in turn led them to seek out high-yielding but risky—and ultimately unsound—investments in the stock, bond, and real estate markets.

Legislative remedies in the Banking Acts of 1933 and 1935, and various revisions of the Federal Reserve Act, focused on limiting price competition between banks, separating banking from securities market activity, supervising banking and financial markets more closely, and restoring public confidence in the financial system.

Reflecting a general concern about excessive competition, the payment of interest on demand deposits was prohibited by law. In addition, the Federal Reserve Board and the Federal Deposit Insurance Corporation were given the power to place interest rate ceilings on the passbook and time deposits of commercial banks. Interest rate ceilings were extended to the deposits of mutual savings banks and savings and loan associations in 1966.

The type and quality of assets held by banks were closely monitored. Commercial banks were not permitted to hold securities of a speculative nature in their portfolios, and thrift institutions were subject to even greater limits on their asset acquisition powers. In addition, most securities activities were divorced from commercial banking by the Glass-Steagall sections of the Banking Act of 1933, and entry into banking became more closely controlled. To maintain the confidence of the public in the banking system, deposits were insured by the Federal Deposit Insurance Corporation and the Federal Savings and Loan Insurance Corporation. With the introduction of deposit insurance, the other regulations served mainly to limit the exposure of the insurance funds rather than to protect depositors. Nevertheless, recent studies suggest that the web of regulatory restraints was generally greater than required for this purpose.

Moreover, this extensive regulatory framework for financial institutions has adapted slowly to the economic changes of the last two decades. High inflation rates and consequent high nominal interest rates, combined with reduced transactions costs from the application

of computer technology to the payments system, have created serious distortions in financial markets. As market interest rates rose above Regulation Q ceilings, inflows of funds to depository institutions were curtailed, and new nonregulated instruments (especially money market mutual funds) were created. The allocation of savings to various sectors of the capital market—particularly housing vis-a-vis other sectors—was altered, and small and less informed savers suffered declines in the real rate of return on their savings. In addition, Regulation Q generated a considerable amount of nonprice competition between financial institutions, such as an excessive number of branch offices, with resulting adverse effects on efficiency. Interest rate ceilings on selected deposits were removed progressively beginning in 1978.

The Administration continues to support the removal of unnecessary and excessive regulatory constraints on depository institutions. It is now widely asserted that the length and severity of the banking collapse of the 1930s was not the result of overly risky bank portfolios. Rather, many economists argue that these failures became widespread, initially, because of the reluctance of the Federal Reserve System to engage in aggressive open market operations to counter the conversion of deposits to currency and, later, because of the Federal Reserve's failure to assure adequate liquidity to banks experiencing runs on their deposits. As banks scrambled to liquidate their assets to meet the demands of their depositors for currency, their asset values fell, thus creating insolvencies. The provision of adequate liquidity by a lender of last resort has long been recognized as a primary responsibility of the Federal Reserve System.

Partial deregulation of depository institutions is now proceeding under provisions of the Depository Institutions Deregulation and Monetary Control Act of 1980 and the Garn-St Germain Depository Institutions Act of 1982. Under the 1980 act, interest rate ceilings on time and savings deposits are to be phased out over a period of 6 years. The same law permits depository institutions to offer negotiable order of withdrawal (NOW) accounts and preempted certain State usury ceilings. This act also created the Depository Institutions Deregulation Committee (DIDC) to administer the phaseout of interest rate ceilings at banks and thrifts.

In March 1982, the DIDC adopted a deregulation schedule that phases out interest rate ceilings, beginning with longer term time deposits. With the deregulation schedule in place, the focus of the DIDC turned to short-term deposit instruments. Prevailing high interest rates had caused a continued erosion of low-cost deposits at banks and thrifts, as depositors sought market rates elsewhere, particularly through money market mutual funds. The DIDC addressed

this problem by authorizing, effective May 1, 1982, a 91-day time deposit with a \$7,500 minimum denomination indexed to the 91-day Treasury bill rate, and establishing, effective September 1, 1982, a 7- to 31-day deposit account with a \$20,000 minimum denomination, also indexed to the 91-day Treasury bill rate.

Following the directions given by the Garn-St Germain Act, the DIDC authorized, effective December 14, 1982, a new money market deposit account that can be offered by commercial banks, savings and loan associations, and mutual savings banks. In addition, the DIDC authorized a new super NOW account, effective January 5, 1983. Neither account is subject to interest rate ceilings when account balances exceed \$2,500. The DIDC also reduced to \$2,500 the minimum denomination required on the 6-month money market deposits, the 91-day time deposits, and the 7- to 31-day time deposits.

The introduction of NOW accounts nationwide in 1981, the authorization of the new money market accounts at banks and thrifts, and the general phasing out of interest rate restrictions substantially increase the ability of depository institutions to compete for funds. Simultaneously, various actions have been taken to allow thrift institutions greater flexibility in the investment of funds. The Deregulation and Monetary Control Act expands the asset powers of saving and loan associations and mutual savings banks to include consumer, corporate, and business loans. This will lead to more diversified portfolios for these institutions. In addition, new regulations issued by the Comptroller of the Currency in 1981 and the Federal Home Loan Bank Board in 1982 permit depository institutions to offer variable rate mortgages. Finally, the Garn-St Germain Act provides for Federal preemption of State laws and judicial decisions that restrict the enforcement of due-on-sale clauses in real property loans.

The Garn-St Germain Act also deals with the problems of the savings and loan institutions discussed above. It provides capital assistance to depository institutions that have suffered earnings and capital losses resulting from regulatory restraints on their assets and liabilities. The assisted institutions issue capital investments, called "net worth certificates," which the insuring agencies purchase with promissory notes. This increase in net worth reduces the likelihood of insolvencies arising from losses created by holdings of old, fixed-rate mortgages. As market rates of interest fall, and the earnings of these depository institutions improve, the net worth certificates will be retired.

Legislation following the banking collapse of the 1930s tended to prevent competition among financial institutions and created a complex and often counterproductive labyrinth of financial regulations. Recent legislation and regulatory changes have begun to reverse this

trend by widening the sources and uses of funds available to depository institutions, and by allowing for a far larger measure of price competition in the financial services industry. These actions should contribute to a stronger and more responsive financial system.

STOCK EXCHANGES

Much of the regulation of the Nation's stock exchanges began in the 1930s, largely in response to the crisis in the financial markets created by the Great Depression. This regulation was broad and diverse, and included mandatory and systematic disclosure of corporate records as well as rule-setting authority over stock exchanges. Over the last several years, much of this regulation has been relaxed.

Commission Rates

Prior to 1968, commissions paid to members of stock exchanges were fixed by those stock exchanges and approved by the Securities and Exchange Commission (SEC). After 1968, however, the fixed commission schedule was slowly dismantled in favor of negotiated commissions. Beginning in May 1975, commission rates on all security transactions were negotiated.

Negotiated commission rates were the product of a market-induced breakdown of the fixed-rate commission structure. From 1961 to 1966 the dollar volume and market share of the regional stock exchanges increased dramatically because of the fixed-rate system. Regional stock exchanges allowed customers dealing on those exchanges to "give up" or have transferred a portion of their fixed commission to a third party who supplied other services. The New York Stock Exchange (NYSE) stipulated that customers of that exchange could only give up commissions to other members of the NYSE. This constraint that the NYSE imposed on its customers encouraged many of those customers to turn to the regional exchanges, where competition had effectively driven down the cost of exchange services.

Faced with a declining share of stock transactions, the NYSE asked the SEC to force regional exchanges to eliminate the rules that were affording them a competitive advantage. Commenting on the NYSE proposal, the Department of Justice suggested that the broader issue of possible elimination of the fixed-rate commission structure should be examined. In defense of the fixed-rate commission structure, a NYSE study suggested that "destructive competition," reflected in a decline in the quality of broker services, could result from the absence of fixed commission rates.

Despite the objections of the NYSE, the Congress passed the Securities Acts Amendments of 1975. These reconfirmed that nonmember commission rates were fully negotiable and made exchange floor

rates fully negotiable by May 1976. The deregulation of fixed commission rates illustrates the efficiency gains that follow deregulation. Since the total deregulation of commission rates, average commissions charged to customers have decreased. Services which were previously provided jointly whether customers used them or not, are now substantially unbundled.

Financial Disclosure

The Securities Exchange Act of 1933 required financial disclosure for corporations seeking to raise capital through the issuance of new securities. The Securities Exchange Act of 1934 required periodic financial disclosure for corporations with publicly traded securities. One of the motivations for this original legislation was a belief that corporations must be forced to disclose financial information in order to protect the interests of investors. In recent years there has been concern that these requirements have precluded new security issues thus inhibiting the efficiency of the capital market. Additionally, a growing body of scholarship has questioned whether these requirements have served the interests of investors. Recently, some of these stringent disclosure requirements were ended for certain types of corporations. Specifically, corporations with less than \$3 million in assets and 500 stockholders are now exempt from the filing requirements of the Securities Exchange Act of 1934.

The SEC has also recently allowed, on an experimental basis, some firms issuing new securities to use "shelf registration" forms, thus eliminating the requirement to file for each new security issue. The initiation of shelf registration is expected to reduce the costs of raising equity capital, allowing firms to manage their risk more efficiently by entering the capital markets more often.

Industry Structure

Before 1980, stocks listed on stock exchanges could not be traded by members of those stock exchanges in any other markets. This barrier to entry was partially lifted in June 1980, when the SEC approved Rule 19c-3. This rule allows members of stock exchanges to trade securities in other markets that were listed on those stock exchanges after May 1979.

Stock exchange members are now also allowed to execute trades in the "19c-3 securities" in markets other than the stock exchanges. The market share of non-19c-3 stocks on the Over-the-Counter (OTC) markets is considerably less than the OTC market share for 19c-3 securities. This larger market share for the OTC in 19c-3 securities suggests that, for some exchange members, it is more efficient to execute orders on the OTC rather than on the stock ex-

changes. That is, members can arbitrage price differentials that may exist between the OTC market and the exchanges.

Futures Markets

The Commodity Futures Trading Commission (CFTC) has also been very active in deregulation. In January 1982, the CFTC eliminated the 03 report, which had obligated large traders in future contracts to report their market positions daily to the CFTC. This action reduced the filing costs of these large traders by around 50 percent. In an effort to lessen the burden of Federal regulation on the futures industry, the CFTC's new legislation eases the disclosure, registration, and rule approval process.

OPPORTUNITIES FOR FURTHER DEREGULATION IN THE FINANCIAL INDUSTRY

While the financial and securities markets of today operate relatively unencumbered by unnecessary regulations, owing to the deregulatory advances discussed above, several opportunities for further deregulation remain.

Geographic Restrictions in Banking

Federal laws, such as the McFadden Act of 1927 and the Douglas Amendment to the Bank Holding Company Act of 1956, continue to impose geographic restrictions on commercial banking activities. The former law subjects the branching activities of national banks to the limits imposed by the States; the latter law prohibits bank holding companies from engaging in interstate banking unless given specific State authorization to do so. Although these prohibitions may reduce the concentration of financial resources on a national scale, they may also increase market concentration and lessen competition in local banking markets.

Moreover, these restrictions are effective only insofar as they affect the taking of retail deposits. Loan production offices, Edge Act corporations, personal finance companies, mortgage lending companies, and bank holding companies have long been the means used by banks to conduct wholesale and retail business on an interstate basis. With the emergence of automatic teller machine networks, the electronic revolution is incorporating even retail deposit-taking into large-scale operations. This process would be enhanced by exempting automatic teller machines from the existing restrictions on the establishment of branch offices. It is time to reconsider these geographic restrictions because they are probably not in the best interests of consumers or the more efficient financial institutions.

Portfolio Restrictions in Banking

The prohibitions of the Glass-Steagall Act have been eroded in recent years as both banking organizations and securities firms have attempted, either directly or indirectly, to enter each others' traditional lines of business. Moreover, Glass-Steagall now makes no important contribution to the protection of the public against bank failure or undue concentrations of economic power. Other government measures, such as Federal deposit insurance and broadened and strengthened Federal supervision, appear to have been more effective in that role. The Administration has proposed an amendment to the Glass-Steagall Act that would authorize bank holding company subsidiaries to conduct two new activities immediately: (1) to underwrite and deal in municipal revenue bonds, and (2) to sponsor and underwrite shares of mutual funds. The Garn-St Germain Act authorizes a new account at banks and thrifts that is directly competitive with money market mutual funds. However, the act does not provide for the operation and sale of shares in mutual funds or the underwriting of municipal revenue bonds. Moreover, the act also extends the long-standing protection of insurance companies against bank competition.

Margin Requirements

Margin requirements presently exist in the stock, options, and futures markets. In futures trading, the margin is a performance bond intended to protect other participants from the consequences of a failure to make good on a contractual obligation. Each futures exchange determines the margin without Federal regulation or oversight. In stock and options exchanges, the Federal Reserve Board sets initial margin requirements, and the exchanges set maintenance margins subject to SEC oversight. Margin practices in the stock and options markets may be less efficient than in futures markets, since regulation constrains decisionmaking by participants. It is now appropriate to review these regulations.

CONCLUSIONS

Federal regulation of price and entry are products of an earlier era, when both economic conditions and perceptions of economic problems were very different than they are today. Federal regulation of railroads began nearly a century ago, when there was no significant competition from other transport modes and political debate reflected strong populist sentiment. Most other Federal economic regulations date from the 1930s, when the severe economic problems, now believed to be due to a collapse in aggregate demand, were per-

ceived to be a consequence of excessive competition. The present structure of Federal regulation of the energy markets dates from the 1970s and primarily reflects an attempt to protect consumers from the effects of the large increase in oil prices originating abroad.

These policies may or may not have been appropriate to the period in which they were initiated. But both conditions and perceptions are now very different. Increasing demand and changing technology have substantially reduced the initial monopoly power of many regulated firms. Our perceptions have also changed, largely in response to developing conditions during the long history of regulation and the encouraging developments during the more recent period of partial deregulation. There is now a more general perception that the developments in regulated markets have largely outrun the present structure of economic regulation.

As we approach the 100th anniversary of the first broad body of Federal economic regulation, it is time for a comprehensive review of whether this form of regulation serves the interests of the contemporary economy. A resolution of this issue would then permit greater attention to the different and more complex issues affecting the recent Federal regulation of health, safety, and environmental conditions.