Political Economy

The Political Demand for and Supply of Deregulation

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Over the past two decades, economists have challenged political scientists with a theory of government intervention into the economy in which concentrated producer interests "demand" regulation that limits competitive entry, and willing politicians supply it in return for votes and campaign contributions (Stigler, 1971). Ironically, while the use and refinement of this theory expanded (Peltzman, 1976; Becker, 1983), American governments led by both political parties started *deregulating* and reducing public sector involvement in a range of tranportation, financial, and communications markets, opening the "economic theory" to some questions (Noll and Owen, 1983; Peltzman, 1989). Political scientists have tried to explain how deregulation could occur in the absence of strong concentrated interest group demand or pressure for it (Derthick and Quirk, 1985; Knott and Hammond, 1988; Quirk, 1988a). Both groups of scholars have not synthesized elements from each other to develop an adequate theoretical explanation. This article presents such a synthesis by taking into account important groups with interests often opposed to those of the incumbent regulated firms, especially "downstream" business users of the regulated service, and governmental actors who can act independently from net interest group pressure; the full demand and supply sides, respectively. Demand for deregulation from interest groups did exist and was important, but is best characterized as a necessary but not a sufficient condition.

The theory is then applied to the breakup of A T & T and the federal deregulation of telecommunications service in the 1970s and 1980s, which remains a puzzling case. In airlines, trucking, railroads, and financial markets, one can easily make the case that widespread residential consumer interests "won" (regardless of whether they were the forces that actually pushed most effectively for deregulation) and now pay lower prices for these services and for products delivered using these services.* Thus, political scientists have focused on the question of how widespread interests, with low per capita stakes, could defeat concentrated interests with high per capita stakes (Olson, 1965; Wilson, 1980; Derthick and Quirk, 1985), especially on issues that are not usually highly salient. In telecommunications, however, although it is possible that in the long run all consumers will benefit from deregulation, in its first-order, short run effects, which are the politically

relevant ones, widespread residential consumers are not "winners" by objective measures and do not see themselves as such in subjective surveys (Teske, 1990).

The market share purchased by "large users" in the years before deregulation, such as business users of telecommunications, large shippers of trucked or railroad-carried goods, business air flyers, and institutional investors in financial markets, is very important. The evidence presented here is that a large percentage of these services were purchased by concentrated users with incentives to organize and to participate in political regulatory proceedings, providing a vital and vastly underappreciated demand for deregulation. This finding allows scholars to focus less on explanations that require active support from widespread residential consumers and more on those stressing the political power of concentrated business users. About half of all business sales in the American economy are made to other businesses rather than to final consumers. About 60% of all transportation and warehousing services and 55% of communications services are sold to businesses (Stanback, 1979). This means that over half of the "consumers" of these deregulated industries are businesses, and within this category usage is often concentrated even further.

As the rest of the paper demonstrates in detail, in telecommunications large user firms represent a vastly disproportionate share of the market; about 1% of users generate 25% of all toll calls. In trucking and railroads, large shippers represent virtually the entire immediate market, rather than individual residential consumers. For example, for railroads today, "grain is an important bulk commodity for railroads and accounts for nearly 10 percent of rail tonnage (coal is the primary bulk commodity for railroads, accounting for 40 percent of total tonnage)" (MacDonald, 1989: 63). Thus, half of all railroad "consumers" are concentrated shippers of coal and grain. Recent research has shown that users were important in the initiation of railroad regulation in the 1880s: "The struggle over the ICA [Interstate Commerce Act] was not simply railroads against an undifferentiated set of consumers. The analysis instead requires a multi-interest-group perspective." (Gilligan et al., 1989:40; see also McCraw, 1984; Weaver, 1975:28 on the political power of Canadian farmers over national railroad tariffs for grain shipments). Some of the influential shipper groups one hundred years ago included the Cheap Freight Railroad League, American Cheap Tranportation Association, National Anti-monopoly Cheap Railway League, Boston Merchants Association, and Chamber of Commerce of N

York City.

Only in finance and airlines does the concentration of business users seem lower. Levine notes: "airlines had consumer customers, whereas trucking had producer customers, a distinction that, I believe, is political relevant." (Levine, 1989: 46). Even in airlines and finance, however, business users increasingly began to *drive* the market prior to deregulation - in finance, large insitutional investors make up a large and growing share of the market (although often combining individual accounts, as in pension funds). Jarrell (1984:277) cites as a crucial factor in financial deregulation that the dollar volume of trades on the New York Stock Exchange made by institutions (as opposed to individuals) grew from only about 25% in 1963 to about 50% in 1978. And, in airlines, business travelers constitute the most important market segment since they pay the highest rates, due to their inelastic demand. A Gallup poll taken for the Air Transport Association found that 3% of those who took airline flights in 1988 accounted for 48% of all airline trips.

It is important to this argument that there was change in these markets prior to deregulation. The inflation that began in the early 1970s and highly variable interest rates in the late 1970s and early 1980s (Rose, 1989:58) meant that most firms, as the micro-level building blocks of the national economy, began to experience increasing costs and sagging productivity. They could not affect directly the costs of energy supplies, nor of other raw materials, nor the price of money. Increasingly, their labor costs were tied to the Consumer Price Index and hence less controllable. Thus, firms began to examine and try to affect politically the costs of inputs like transport and communications, and play a stronger role in financial markets. These industries were especially attractive targets when firm reliance on them was increasing and when economists had been arguing that their prices were being held artificially high by government regulation that protected industry cartels.

Previous Explanations of Deregulation

Previous explanations of deregulation by political scientists have emphasized political entrepreneurs (Wilson, 1980) or a "politics of ideas" (Derthick and Quirk, 1985) to explain how widespread interests were mobilized to defeat concentrated ones. A recent debate (Knott and Hammond, 1988; Quirk, 1988a) illustrates that a

political economic explanation of regulatory change must synthesize elements from both perspectives, including the important roles of groups that, in the process of seeking change in their own self-interest, provide political support to political entrepreneurs favoring deregulatory ideas.

The market-failure perspective from economics provides a useful analytic tool with which to understand regulatory change. According to a "public interest perspective" (Levine, 1981), economic regulation should address the market failure of natural monopoly and problems with competition related to economies of scaled Scholars' explanations for deregulation vary to large extent depending on their view of why *regulation* was there in the first place; did it serve the public interest or only private interests? Three major perspectives can be summarized: (1) the public interest "learning" perspective, in which technology did not change markets as much as economists and others convinced bureaucrats that competitive markets could work and deregulation succeeded with politicians picking up the ball, defeating entrenched interests (Derthick and Quirk, 1985), perhaps best exemplified by trucking deregulation; (2) a public interest and technological change explanation, in which an economic market failure did exist previously at the time of regulation, but changing technology eliminated it, correctly releasing a "deregulatory snowball" (Knott and Hammond, 1988), best exemplified by financial markets; (3) the "Chicago school" view in which no major market failure ever existed and industry interests were able to retain advantageous regulation for a long period (Stigler, 1971), but now have lost the political battle to retain this advantage because important interests prefer deregulation (Peltzman, 1976; Becker, 1983,1985). The first two arguments require key elements of the third explanation to work in practice, just as the third is by itself insufficient. As Keeler notes in his attempt at synthesizing economic theories: "one of the special-interest theories, the Peltzman theory, extended to integrate several important public-interest considerations, explains both regulation and deregulation in these industries better than can any of the public interest taken alone and better than any of the previous special-interest theories." (Keeler, 1984:105).

Synthesis

The demand for regulation (and deregulation) comes from coalitions of interest

groups and is opposed by other coalitions. Wilson (1980), McCraw (1984), Gilligan et al. (1989) and others have shown, historically, how coalitions of interests, not simply producers, supported the initiation of regulation in a number of industries. Generally, when one coalition of political support overwhelms the opposition, their demands can be expected to dominate; politicians and bureaucrats largely just supply what the members of the more powerful coalition want. When the strength of the coalitions is nearly equal however, governmental actors can supply deregulation, or other policies that are not favorable to the regulated firms and other coalition members that formerly dominated.3 The interest group environment need not be fully pluralist but it does need to include powerful interests on both sides (see Vogel, 1989). If the economic contributions to regulatory theory since Stigler collectively suggest anything, it is that one industry or interest group is unlikely to dominate regulatory decision-making over time to make it incompatible with an efficient correction of market failure (Posner, 1974; Peltzman, 1976; Becker, 1983,1985; Keeler, 1984).

Within this "zone of discretion" that a relatively balanced interest group environment provides, governmental actors become critical and have scope to bring factors other than external political pressure into their decisions. These factors may include their own ideology, bureaucratic staff analysis, widely circulating ideas and national concerns such as deregulation or international competition, and elements of regulatory structure that make them more or less directly accountable to different interests in the coalitions (Moe, 1989). This reflects more of a "statist" view of decision-making. To get to this point, however, there must be countervailing interests to oppose those of the powerful regulated firms. These newly emerging interests highlighted in this paper make the coalitions more equal, and give actors within government a chance to call upon these other factors to achieve deregulation. Alfred Kahn notes that "deregulation in trucking followed partly because the lessons learned from airline deregulation were transferred to trucking by the *same political coalition,* consisting of Edward Kennedy, Ralph Nader, the Consumer Federation of America, Common Cause, the National Association of Manufacturers, and the National Federation of Independent Small Businesses." (Kahn, 1989: 59, emphasis added). Just as macroeconomists analyze the "demand-pull" and "supply-pull" origins of inflation, deregulation can be brought about by a combination of

"demand-pull" by interest groups and "supply-push" activities of governmental actors.

Interest groups can implicitly embody technological change and economic efficiency (which economists consider to be "the public interest") as well as their own specific self-interest. Regulated firms (often at least partially split among themselves, as when United Airlines broke with other airlines and favored deregulation), large "downstream" business users of their services, "upstream" providers of equipment for regulated firms, potential and actual competitors, affected unions, and residential consumers form a constellation of interests that seek to influence regulators and legislators. Some of these interests join together to form a potent coalition in favor of deregulation.

TELECOMMUNICATIONS DEREGULATION AND THE DIVESTITURE OF AT&

Since the discipline of political science takes its second name from using a scientific methodology to understand probabilistic tendencies, we should not feel compelled to explain every significant individual political event. The march of history is probabilistic; on average, one out of every ten events with a 0.1 possibility of occuring actually does take place. We often try to explain these events retrospectively as if they were predestined (March and Olsen, 1989). While we should be aware of probabilities, when the largest corporation in the world, providing the best telephone service to the country with the largest GDP in the world, is broken-up by the government, as AT&T was in 1982, we must attempt an explanation. And, yet, eight years later, we do not have an adequate explanatory theory for this event that was the most significant of a series of occurances leading to the deregulation of the U.S. telecommunications industry.

The deregulation phenomenon can not itself be considered an unlikely surprise as it happened in other industries and in the telecommunications industries of Britain and Japan (although they followed the U.S. model to some degree). Divestiture itself, however, was a surprise. As Crandall (1988:324) notes: "The major event in the telephone industry has not been deregulation, but divestiture." Furthermore, when the main results since 1984 are a change from positive to negative trade balance in telecommunications equipment, only two real long-distance competitors, a seeming glut of long-distance fiber optic capacity, minimal local competi-

tion, and higher local rates for a majority of residential consumers, we must ask why.

Scholars have offered a structural theory of how AT&T, the most powerful force, "won by losing" (MacAvoy and Robinson, 1983), suggesting that AT&T opportunistically shed the slow-growth local telephone exchanges for the right to enter high growth computer and information markets. We also have been offered a journalistic account of the mistakes, misunderstandings, and accidents that led to the antitrust case that directly broke-up AT&T (Coll, 1986), the 0.1 probability description. As noted above, Derthick and Quirk (1985) offer a general explanation of deregulation, using airlines, trucking, and telecommunications as cases, focusing on the acceptance of economic concepts of competition. They readily admit, however, that these ideas were far less clear in telecommunications than in the other industries. Indeed, economists still disagree over the basic natural monopoly issues in 1990. Temin (1987), in the official AT&T account, like Derthick and Quirk, stresses the role of ideas rather than technological change. Knott and Hammond (1988) focus on the instability of cartel regimes, even those managed by government, but they admit that this explanation fits financial industries better than telecommunications. Horwitz (1989) focuses on the ironies of telecommunications deregulation. Only Stone (1989) properly emphasizes the role of large users, but none of these explanations is complete, as a brief history will show.

Telephone Regulatory History

Early telephone regulation struggled with pricing issues, particularly whether the prices of toll calls should include some of the costs of the local access lines connecting end-users to the network, which remains the central pricing issue today (Brock, 1981). Regulation focused mainly on maximizing service expansion ("universal service" for all Americans), which meant averaging prices despite cost differences, and subsidizing residential subscribers through toll prices set above above marginal costs. Over time, however, toll usage grew and large users began to develop an interest in competitive telecommunications alternatives, threatening the source of residential subsidies. For example, as Stone (1989:128) notes, in as early as 1954: "a dozen user organizations, including railroads, motor carriers, and forest industries, banded together in 1954 as the Microwave Users Council. To them,

the paramount problem was to prevent a recurrance of the intercity television situation in which the common carriers (principally, AT&T) were accorded control of the traffic."

In the 1950s, 1960s, and 1970s, the technological environment changed, first with microwaves replacing copper wire and reducing network economies of scale, then with digital switches and fiber optics further influencing network economics. The decentralization of data processing via affordable non-mainframe and, later, personal, computers developed as the long-forecast convergence of telecommunications and computers began to come to fruition.

Three strains of policy-making shaped the political environment just prior to divestiture in 1982. First, as a result of the technological changes noted, the FCC allowed limited competition with AT&T in long-distance services, pushed largely by MCI, but also by large users. Two, the U.S. Department of Justice combined several antitrust suits in 1974 to break AT&T's monopoly control of equipment purchasing and its monopoly access to the local network exchanges. Three, Congress implicitly approved these changes in the late 1970s by failing to pass an AT&T-sponsored replacement for the 1934 Communications Act that could have halted the FCC's trend toward competition. Thus, federal bureaucrats favored competition, federal lawyers were on a mission, and Congress was not prepared to yield a legislative solution, which led to the awkward legal solution of divestiture.

As noted above, all theories of regulation stress a role for interest group political pressure. To understand political influence from group preference to outcomes (Nagel, 1975; Arnold, 1979), we must consider the powerful interest groups in the telecommunications arena and the extent to which the apparent consequences of divestiture as of 1990 were anticipated or represented a surprise. As Berry (1989:191) notes, the telecommunications interest group environment is one of the most complex.

Interest Groups

The constellation of interests in telephone regulation at the time of divestiture included AT&T, its unionized employees (e.g., CWA, IBEW), actual competitors (e.g., MCI), residential and small business consumers, large business users, and equipment suppliers and potential competitors (e.g., IBM). I will consider, in

turn, their preferences and the resulting outcomes.

AT&T, in its pre-divestiture form, had tremendous potential political clout, with 1 million employees and 3 million stockholders. Yet, they failed to persuade Congress to halt the FCC's competitive trend in the way they desired (von Auw, 1983; Derthick and Quirk, 1985; Coll, 1986; Temins, 1987; Stone, 1989). "Depending on one's view AT&T may have been too small (one firm) or too big (3 million stockholders) to dominate the compact group (large users and private system operators) that would benefit from deregulation of entry." (Peltzman, 1989:32). Still, since divestiture was so complicated, many assumed that powerful AT&T must have walked away with the best deal. By 1990, however, most analysts have dismissed the AT&T "won by losing" explanation by pointing to their financial losses in computer markets, their loss of long-distance market share, the thousands of employees laid-off, and lower stockholder earnings compared to the surprising financial health of the regional holding companies (RHCs), or "Baby Bells", spun-off and created in the Modified Final Judgment (MFJ) of the divestiture. Clearly if AT&T got the policy it wanted, it miscalculated badly. The more fundamental critique of the "won by losing" theory is that AT&T fought as hard as possible against divestiture for decades until top management made a signficant shift just prior to the January 8, 1982 Consent Decree (von Auw, 1983; Coll, 1986). Salvaging the best out of a losing situation is not equivalent to orchestrating a process to achieve desired goals.

Since the RHCs spun-off from AT&T in 1984 can not be accused of favoring divestiture (they did not exist prior to the event), their financial success since their birth has been a surprise to almost everyone, including Wall Street stock analysts. Their average stock return was twice that of AT&T from 1984 through 1988 (Crandall, 1988).

What about the unionized employees of AT&T? In many other nations, telecommunications services are delivered by a state-run Postal, Telegraph, and Telephone (PTT) enterprise, and they subsidize postal services. In several countries, such as West Germany, the PTT is the largest employer and unionized workers have significant political power, particularly in opposing privatization. In the United States, however, it is inconceivable to view AT&Ts unionized employees as achieving their goals in telecommunications policy. Thousands of employees have lost their jobs and new competitors often are not unionized. Unionized telecommunications employees

opposed deregulation and lost.

One obvious and populist possiblity is that competitors won the day. With the development of an amazingly brilliant strategy, Bill McGowan captained MCI and David beat Goliath (see Kahaner, 1987). Yet, it seems equally easy to argue that MCI's early success was a function of regulatory distortions in pricing, which allowed MCI to "cream-skim", and regulatory limits on AT&Ts response to MCI's competitive thrusts. MCI would not have succeeded without the FCCs help. As subsequent FCC policy after divestiture moved toward a more 'level playing field', MCI and US Sprint, the only remaining national competitors, suffered large financial losses. Although both look stronger in 1990, their long-term viability as separate entities in the world of over-capacity of optical fiber remains in some doubt. They now seem to favor an oligopolistic market structure similar to that in other, unregulated industries rather than a heavily regulated AT&T. Clearly MCI won some important battles in the 1970s, but may have partially "lost by winning."

Deregulation in the banking, trucking, and airlines industries is often described as the amazing victory of widely dispersed consumers over concentrated industry interests (Derthick and Quirk, 1985). With divestiture and subsequent pricing policies, while it is clear that economic efficiency and consumer surplus will increase in aggregate (Wenders, 1987), the median residential consumer will *not* gain from the first-order impacts.5 Survey evidence indicates strongly that residential consumers do not view themselves as winners from divestiture. Over 80% of consumers rated telephone service "good" before divestiture, the highest of any service tracked by the government (Coll, 1986:367). Surveys taken in 1985 and 1986 found widespread dissatisfaction, with only about one-fourth of respondents citing divestiture as a good policy. Even by the end of 1988, a *Washington Post* survey still found more consumers rating divestiture a bad policy than those who rated it positively. Thus, small consumers did not push for or do well by divestiture.

Are we then left with only a combination of the accident theory and MCI's valiant effort? No, because of the other important interest groups that played a significant role, large business users of telecommunications services and potential competitors, including equipment suppliers. The first group are specialized consumers, particularly large service firms. The second group include firms that wanted to compete in AT&T's markets, including equipment providers and computer companies,

most prominently IBM. Together, these firms provided a potent coalition opposed to AT&T's monopoly control over telecommunications services. Stone (1989: 20) says that by the late 1960s, "interests such as the American Petroleum Institute, IBM, the computer service bureau industry, department store chains, Westinghouse, and other firms and industries began to perceive communications as a central part of their operations." Thus, they began to play an increased political role.

Many of the large user firms, and especially their industry associations, were active in telecommunications regulatory proceedings even earlier, just after the development of microwave communications in WWII. Stone (1989) cites the Television Broadcast Association, American Petroleum Institute, Industrial Communications Association, National Association of Manufacturers, National Retail Dry Goods Association, Automobile Manufacturers Association, electric utilities, truck and bus lines, and press services as major players in regulatory proceedings in the 1950s and 1960s.

The reason large business telecommunications users were so interested is reflected by the skewed demand for toll calls; about 1% of all business locations generate over 25% all toll revenues. Evidence suggests that computer service firms, financial operations, and airlines (all recently deregulated) are among the largest users. These firms take telecommunications seriously and consider it not only as an input cost of production, but as a strategic asset (Wilson and Teske, 1990).

Currently, large users are organized into several political action groups, including: (1) the Committee of Corporate Telecommunications Users (CCTU), made up of 30 large American institutions spending more than $ 20 million each per year on telecommunications; (2) the International Communications Association, representing 550 of the world's largest users, each of which spend at least $1 million per year on telecommunications; (3) the New York Clearinghouse Association, comprised of 12 New York City-headquartered banks, including six of the 10 largest in the U.S.; (4) the Utilities Telecommunications Council, representing 2,000 electric, gas, water and steam utilities; (5) the Association of Data Communications Users, representing 175 high-use corporations and institutions, including banks, insurance companies, universities, and manufacturers (General Accounting Office, 1986). The CCTU, for example, represents the nation's largest financial institution, city, private university, health care group, and grainfarmers consortium, as well as insurance compa-

nies, car rental companies, and telemarketers. Together, before divestiture in 1983, these 30 CCTU members constituted 17% of AT&T's long distance revenues (l lips, 1989: 8)! Many of these user groups participated in federal and state regulatory proceedings and they recently developed the additional trumpcard of being able to establish their own networks to "bypass" the public, switched network. Quirk (1988b) argues that these groups did not participate actively in seeking divestiture. Stone makes it clear that they have been active politically for decades, even if they did not all participate directly in the Department of Justice antitrust case U.S. v. AT&T. In addition, publicly active political participation is not always necessary for firms with options and implicit political clout (Lindblom, 1977).

In the 1960s MCI was a *potential* competitor of AT&T, but it forced legal action and became an actual competitor by the late 1970s. Other potential competitors included IBM and equipment providers who sought to sell their goods for use on the telephone network, but had little chance when the AT&T subsidiary, Western Electric, produced such equipment. And, equipment providers (although not always American firms)6 were large winners from divestiture: "roughly half of all new telephone investment is being undertaken by entities other than the local or long-distance telephone companies" (Crandall, 1988:324). Aronson and Cowhey (1988:266) note that "large users, international service providers, and large electronic firms… are the center of the telecommunications reform coalition."

With the technological feasiblity of bypass first brought about by microwaves, the distinction between large users and potential competitors began to blur (Irwin, 1984). From the start MCI has been one of AT&Ts largest customers, by leasing capacity, because MCI did not have a true national network. And, conversely, AT&T is the largest "customer" of each RHC, because of the fees paid for access to their local networks, which still represent about 50% of AT&T's long-distance costs.

While Noll and Owen (1983) note that the "Association of Potential Competitors" is not listed in the Washington, D.C. telephone book, it is not true that such players have little clout. IBM was one of the crucial supporters of changes in telecommunications. Ironically, on the same day as the AT&T Consent Decree, a major antitrust suit against IBM was dropped, leading some pundits to suggest that the two decisions had been switched in the mail. As Stone (1989:239) says: "The computer industry (including IBM) was partly responsible for the changes in telecommunica-

tions policy [from 1969-1982]."

IBM had a vital stake in foreseeing that the convergence of computer and telecommunications technologies, resulting in connectivity and distributed data processing, represented the future in computer markets. IBM hoped to avoid government regulation of its activities, while constraining AT&Ts role. The firm became an active participant in the FCCs Computer Inquiry I-III proceedings, which started in 1966. For example, when AT&T tried to introduce the Dataspeed 40/4 terminal in 1975, according to Stone (1989:261): "IBM, the Computer Industries Association (CIA), and the Computer and Business Equipment Manufacturers Association (CBEMA) petitioned to have the Dataspeed 40/4 tariff revisions rejected on the ground that the service constituted data processing rather than communications, which was not permitted under the Computer I rules."

Later, IBM supported an influential Charles River Associates/Harvard University study of telecommunications that, despite admittedly ambiguous economic evidence, favored competition in long-distance carriage (Meyer et al., 1980). IBM also financed SBS, a major satellite communications venture. After 1982, IBM purchased substantial stakes in MCI, Rolm, a telecommunications equipment producer, and a shared tenant services provider, which placed them squarely in every major telecommunications market. Although its "strategy is not to become a big player in ordinary long-distance, but to protect its basic computer business" (Kirkland, 1984: 54), by 1984 10% of IBM's revenues came from telecommunications-related business.

More recently, IBM developed the concept of Open Network Architecture (ONA) as a way to end the local monopoly of the RHCs, a spinoff of its "systems network architecture" developed in the 1970s. ONA, while not fully developed, has generated a significant amount of interest and controversy. IBM is also active in ongoing debates about Integrated Services Digital Networks (ISDN), because the more hardware "intelligence" built-into such telecommunications networks, the less computer support and software that is needed at the nodes of the network. While popular business publications viewed divestiture from the perspective of AT&T being allowed to enter IBM's territory,7 generally a failure through the 1980s, the opposite invasion was a significant influence leading to divestiture.

Thus, large users and potential competitors played a crucial role in telcommunications deregulation and in divestiture, with IBM, not MCI or AT&T, as one of the

surprising winners. These user/competitor firms held important implicit political levers of spearheading international competition, holding a large employment base, research and development capabilities, and the ability to leave the shared network, in addition to their explicit political lobbying. As Stone (1989:10) summarizes: "the relentless pressure of competitors, large-volume users and others gradually transformed the telecommunications industry. Although MCI was one of the most important and well-known actors in this drama, the roles of Westinghouse, American Petroleum Institute, IBM and other members of the computer industry, the New York Stock Exchange, and a host of other giant firms and trade associations were also influential in forcing these changes to take place."

Ideas and the Supply of Policy

While these competitors and large users are extremely important in explaining deregulation and divestiture, they still only complete the demand side of the picture. Ideas about competition and important institutional decisions, especially those made by the FCC in the 1970s, must be factored in on the supply side. Ideas help provide the independence that government actors need to supply policies different from the net balance of interest groups pressure and the status quo. Levine notes: "Answers [to deregulation] will also be found in the incentives and effects of policy entrepreneurs, "economists on white horses," politicians looking for issue labels that will position them clearly and effectively, and journalists looking for headlines that will capture viewers and readers." (Levine, 1989: 48).

The role of deregulatory economic ideas used by key actors can not be dismissed. Peltzman notes that since many other nations have resisted telecommunications deregulation, "that fact at least suggests U.S. regulators could have resisted new entry for some time after they permitted it." (Peltzman, 1989:31). Deregulation was encouraged in the minds of decision-makers because of its success in other industries, and because of the parallel analogy of decentralized distributed data processing via telecommunications with decentralized economic market choices (reaching full expression in Huber, 1986). Specifically, FCC Computer Inquiries I through DI stimulated this line of thought.

Keynes wrote that "ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed the world is ruled by little else... It is ideas, not vested inter-

ests, which are dangerous for good or evil." (Keynes, 1936:383). Nevertheless, ideas need a substantial coalition of political support to develop them and lobby for their implementation. It is difficult to separate ideas and interests (Kingdon, 1988). The theory supported here is that technological change shaped ideas about competition and deregulation in the convergence of data processing and telecommunications. Actual and potential competitors, especially MCI IBM, and equipment providers, combined with large users to pressure decision-makers to recognize these changes. These interests embodied the ideas and pressured decisions-makers to eliminate the deadweight economic losses that Becker (1983,1985) and Keeler (1984) identify. But as Stone (1989:338) notes: "as the course of events charted here shows, these risks and costs [of the AT&T breakup] ultimately stem from political causes, not economic or technological necessity."

Residential and small business consumers inevitably have experienced losses as the maintenance of a subsidy to them is less tenable in competitive telecommunications markets. Lumping all consumers or users of a product or service together makes no more sense for political scientists studying interest group activity in regulation than it does for market strategists trying to sell their product or for political campaign strategists trying to stimulate votes.

CONCLUSION

Political scientists and economists alike have stressed the role of interest groups in public policy decisions. To explain deregulation, however, political scientists have emphasized ways in which "iron triangles" were broken, including the roles of political entrepreneurs and ideas. This analysis stresses that interest group pressure by large users, competitors, suppliers, and potential competitors was crucial in providing a *demand for deregulation*. Unlike economic theories that require politicians to supply whatever policy is favored by net interest group pressure, however, I argue that countervailing pressure moves the interest group environment into a "zone of discretion" in which politicians and bureaucrats can supply deregulation based on their ideas about policy change. These ideas do require powerful interests to embody and lobby for them. The puzzle of telecommunications deregulation and the AT&T divestiture can best be understood in this demand and supply framework. Unlike other explanations, however, it also applies well to the

cases of transportation and financial deregulation, where concentrated users exerted pressure on decision-makers during a period of price inflation and economic disruption.

Such a theory of change in American policy over time also helps in comparing policies across nations. The three cities housing firms vying for world financial leadership are New York, Tokyo, and London. It is not surprising that the three countries that have substantially liberalized or deregulated their national telecommunications industries in the 1980s are the U.S., Japan, and Britain. (Aronson and Cowhey, 1988; Hills, 1987). While American deregulation was punctuated by an antitrust case rather than explicit government policy, the effect is essentially similar. The Japanese liberalization and privatization of NTT (now the world's largest corporation) can not be understood without considering the role of the Keidanren, the powerful peak association of the largest businesses in Japan, and of large firms like NEC, Mitsubishi, Toyota, and Old, who now back the emerging competitors in Japan (Harris, 1988). Although business users in Britain have been organized since the 1924 formation of the Telephone Development Association (Pitt, 1980), the increase in demand for telecommunications led to the Telecommunications Managers Association growing from 6 members in 1958 to more than 400 members by 1983. Most of the impetus for deregulation came from "The City" financial firms and computer users, since 30% of all British telecommunications revenues are generated by 300 business users (Duch, 1990; Hills, 1986).

The hypothesis that a greater concentration of users should provide more pressure for deregulation also can be tested quantitatively at the state level, since the *intrastate* activity of firms in most of these industries is still partially regulated by the fifty states. Statistical evidence in telecommunications supports the role of large users in pushing deregulation, along with ideas held by government bureaucrats and politicians (Teske, 1990). A study of state insurance regulation shows that various industry segments hold different positions, and that regulatory ideas are also important to policymaking (Meier, 1988). State trucking, railroad, and financial deregulation remain fruitful areas for testing this theory.

FOOTNOTES

1. For example, the average household rarely uses trucking (or railroad) service directly, but instead purchases products from grocery stores, department stores, and utilities that have been carried by trucks or by rail. If deregulation lowered trucking rates (and the retail sector and other parts of the U.S. economy are reasonably competitive), at least part of these savings are ultimately reflected in lower consumer prices, which was the original justification for pursuing deregulation, under the Ford Administration, as a policy to help "Whip Inflation Now".

2. "Social regulation" addresses market failures of externalities (e.g., third parties receive effects that are not priced), such as pollution or land-use decisions, and asymmetric information (e.g., producers know more about a product than consumers), such as food or occupational safety regulation. Although changed over time, social regulation has not been deregulated in the same sense as economic regulation. This paper will not address social regulation in any detail nor other conceivable market failures such as income distribution (VanDoren, 1989). With the market failure perspective, however, both "social" regulation and economic deregulation might be placed into a model in which legislators and regulatory bureaucrats have learned about previous regulatory failure to correct market failures (Wolf, 1988). Some previous "regulatory failures" were caused by inappropriate government intervention, hence deregulation in the area of economic regulation, while others resulted from a lack of intervention, hence, in the 1960s and 1970s, more social regulation. This view of government learning and handling policy problems better over time can not explain other areas where government has not reformed its policies (see Derthick and Quirk, 1985).

3. A crucial question for future research is how near to equilibrium the interest group environment needs to be; political uncertainty probably creates a large zone of discretion. While politicians are probably more expert than political scientists at ascertaining the relative power of political coalitions, even for them, it is far

4. This was not necessarily a subsidy using the strict economic test of stand-alone pricing. However, it was uneconomic pricing that led to distortions and possibly to bypass in the 1980s.

5. Second order impacts may mitigate these losses, through demand stimulus, business pass through of toll savings, choice, and innovation stimulated by movement toward economic, cost-based prices. I estimate that reducing toll rates to marginal costs and raising flat-access fees by a compensatory amount would cause at least a $6 monthly increase for the median residential user.

6. Ironically, Hitachi, Oki, NEC, and Fujitsu, all designated after WWII to provide electronic equipment for the network of N i l , the Japanese domestic telecommunications monopoly, have become some of the important international players.

7. See, for example, *Forbes* magazine article, "Prometheus Unbound, and Seeking His Footing", March 12,1984.

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