Currents

In This Issue:

A key to an energized economy is, well, energy. That is why ongoing efforts to remove remaining regulations on energy and to establish true free markets are crucial to the country's future competitiveness.

Much of this issue of *Regulation* is devoted to that topic. We do, however, continue the discussion on tort reform, and are pleased to publish an interview with freshman Rep. David McIntosh (R-Ind.), one of the leaders of congressional regulatory reform efforts. This issue of *Regulation* offers the following:

Vernon L. Smith: "Regulatory Reform in the Electric Power Industry"

Smith offers an overview of the issues involved in deregulation of the electric power industry. He refutes the contention that electricity is a natural monopoly, addresses problems of retail competition, and describes how the country has arrived at the brink of free markets in electricity. He then offers an outline of how further deregulation should proceed.

Robert J. Michaels: "Stranded Investments, Stranded Intellectuals"

One potential roadblock to establishing free markets in energy is the existence of stranded costs. Local utilities invest in both generation and transmission capacity, and calculate income and profit based on this mix of investments. If private generators sell power to users over the public utility's wires, the utility forgoes income.

In their book *Transmission Pricing and Stranded Costs in the Electric Power Industry*, William J. Baumol and J. Gregory Sidak argue that compelling electricity users to pay off these costs is just fair play. But Michaels argues that such forced subsidies are unwarranted. He observes, for example, that almost all stranded costs for nuclear investments come from plants built after 1984, during a period when demand was not rising. And while engineers recommend that utilities maintain 20 percent excess generating capacity, between 1975 and 1988 the utilities' profit margins exceeded 30 percent. In other words, bad business decisions led to excess capacity. The public should not be forced to cover the costs of such mistakes.

Kenneth W. Costello and Daniel J. Duann: "Turning up the Heat

in the Natural Gas Industry"

Most gas deregulation over the past decade and a half has centered on the wellhead and pipeline sectors. Costello and Duann review this progress and outline steps to continue the transition to free markets for natural gas.

According to the authors, in the future, retail gas customers should be offered a wider array of services from which to choose. One of the procompetitive reforms they advocate is giving local distribution companies the flexibility to offer unbundled or rebundled services to meet customer needs. Deregulation should proceed quickly for services such as gas purchasing and storage in which there already is competition. And during the transition period, regulations, especially concerning ratemaking, should be based on performance.

Joseph P. Kalt, Adam B. Jaffe, Scott T. Jones and Frank A. Felder: "Contract Confidentiality:

The Case of Natural Gas Pipelines"

A certain degree of confidentiality is necessary for any business to negotiate or deal with suppliers and customers. One challenge of ongoing deregulation of public utilities is the need to balance this requirement with the disclosure demanded by customers and policymakers.

Kalt, et al. use the natural gas industry as a case study to explore this issue. They argue that there are two major problems with forcing full public disclosure. First, it can lead to standardization of offerings that could limit services. And second, it can hamper competition and promote, implicitly or explicitly, coordination of services. The Federal Energy Regulatory Commission, which establishes reporting and disclosure requirements, should review its rules in order to help gas utilities through the transition period to free markets.

"We Can End up Winning" An Interview with Rep. David McIntosh

David McIntosh cut his teeth on regulatory policy as executive director of the Bush administration's Council on Competitiveness. Now as a member of the 1994 House freshman class, he is the chairman of the Economic Growth, Natural Resources, and Regulatory Affairs Subcommittee of the Government Reform and Oversight Committee.

In this interview, McIntosh reviews the problems that Congress has encountered in its efforts to reform regulations. He discusses the kinds of arguments and research that reformers must muster if they are to succeed. Finally, he offers a vision of the direction of deregulation in the future. This vision includes devolving responsibility to the states and requiring Congress to vote on all major regulations rather than delegating rulemaking authority to bureaucrats.

David Bernstein:

"Procedural Tort Reform:

Lessons from Other Nations"

We continue the debate over tort reform with Bernstein's examination of how other Englishspeaking countries do it. Specifically, Bernstein finds that for most cases, juries are dispensed with in favor of judges, an approach he favors, despite the reservations of other reformers in the United States. Further, he finds that the loser-pays rule has worked to cut down on frivolous suits. Finally, he believes that doing away with contingency fees for lawyers also removes incentives for predatory legal practices.

Edward L. Hudgins

A Case against Both Stranded Cost Recovery and Mandatory Access

A controversy has developed about the potential

deregulation of electricity—a controversy, I suggest, in which *both* parties are wrong for different reasons. Most of the electric utilities have acknowledged the growing demands for deregulation, but have insisted on pricing rules that cover the "stranded costs" of investments made under current regulations. Most of the advocates of increased competition in the markets for electricity, in turn, have been quick to endorse mandatory access to a utility's transmission and local distribution system. Each of these profoundly nonmarket positions, moreover, has been endorsed by leading regulatory specialists.

A reminder about the nature of property rights is necessary to sort out this issue. One's property consists of the bundle of rights that are recognized and protected by the law—the rights to use, exclude, partition, and sell. Any nonconsensual restriction on this bundle of rights constitutes a taking and should be compensated. A person or firm, however, does not have a right to the *value* of these rights.

The position of the utilities is wrong because it is based on the premise that some implicit "regulatory compact" protects the value of investments made under current regulations. In the absence of a prior agreement between a utility and its customers, however, the campaign to seek regulatory protection for the value of "stranded investments" represents a unilateral effort by the utilities to broaden their property rights. As the review article by Robert Michaels in this issue documents, even the terms "regulatory compact" and "stranded investment" are of recent origin. There never was a "regulatory compact"-consumers would never have agreed to guarantee the value of investments against major changes in technology or the market. The case for protecting the value of "stranded costs" is without merit.

The position of the competitiveness advocates is wrong because they would *restrict* the right of a utility to exclude other generators from using its transmission and local distribution system. Indeed, this has already happened. The Energy Policy Act of 1992 authorizes the Federal Energy Regulatory Commission to order a "transmitting utility to provide transmission services . . . to the applicant." A final rule defining the conditions under which a utility would be required to provide transmission services to other power generators is expected in April 1996. Moreover, several states are considering mandatory retail wheeling, which would require a utility to provide transmission and distribution services for a retail consumer to buy power from some provider other than the local utility. The potential

benefits of a competitive market for electric power are substantial, but they have unfortunately made the competitiveness advocates too casual about the means to achieve early, effective competition. Mandatory wheeling, whether at the wholesale or retail level, should be recognized as a restriction, a taking, of the property rights of a utility.

The alternative, which sounds radical only because electricity has been regulated for over 80 years, is to reject both the recovery of stranded investments and mandated access to a utility's transmission and distribution system. Utilities would be allowed to charge what the market will bear for transmission and distribution services, including the right to exclude any party from access to those services. The primary government role would be to provide the same access to public rights of way that have been granted to the utilities. Other private firms, such as railroads and pipeline companies, should be allowed to offer competitive transmission services over their own rights of way.

Only the direction of the effects of these alternative rules can be forecast with any confidence. Pricing to protect the value of stranded investments, even with mandatory access, would protect utility profits at the expense of consumers; effective competition among power services would be delayed until the stranded investments were recovered. Mandatory access without protecting stranded investments would benefit most consumers at the expense of the probable bankruptcy of numerous utilities; competition among power sources would be accelerated and cross-subsidies among consumers would be eliminated. In both of the above cases, utilities would maintain a monopoly of transmission and distribution services but would be subject to continued regulation of the price of these services.

The third rule—no protection of stranded investments and no mandatory access—would lead to an intermediate near-term outcome and a superior long-term outcome. Utilities that are good managers of their transmission and distribution systems would profit relative to those with substantial stranded investments. Effective competition among power sources would be delayed until there is credible potential or actual competition in transmission services. The first consumers to benefit would be those large power users that now face discriminatory prices and have the lowest-cost access to alternative power sources. In the long term, this third rule is the only rule that leads to increased competition among both power sources and transmission services.

A comparison of probable outcomes, however, is not a sufficient basis for evaluating rules. A fair game, for example, is defined by whether both parties agree to the rules and play by the rules, not by the outcome of the game. In this sense, neither stranded cost recovery nor mandatory access is a fair rule; consumers would not agree to protecting the value of a utility's prior investments, and utilities would not agree to mandatory access to their most valuable assets. The rejection of both stranded cost recovery and mandatory access is the only rule consistent with the current property rights of both parties-the only fair rule. All parties to this controversy about the potential deregulation of electricity are best advised to be principled rather than clever.

William A. Niskanen

Halting Steps toward Electricity Reform

In December 1995 the California Public Utilities Commission (CPUC) partially corrected its rather remarkable May 1995 decision. In May a majority of the CPUC commissioners adopted a model for a restructured electric industry based on a centralized, government-established and regulated "pool," (a "poolco," in the jargon of the initiated) through which all parties would be required to buy and sell. The decision was remarkable in part because the model has been a colossal failure in the United Kingdom, the only nation which has had substantial experience with its effects.

The decision is also remarkable because it *followed*, by about a year, a rather auspicious CPUC proposal, the "Blue Book," which recognized that California's electric rates were 50 percent higher than the national average, that central planning of the industry's economic decisions had been a failure, and that the proper regimen for the state's pudgy utility rates was a healthy dose of the free market. Under this earlier vision, suppliers of electricity were to have "direct access" to consumers—a novel concept in the power business, but customary in every other commercial context. But the electric utilities—professionals

in the game of regulation—did not go gently.

The Blue Book was followed by nearly a year of hearings, during which the vast majority of parties opposed the poolco approach. Indeed, among active participants in power markets, the poolco approach was supported only by franchised monopolies and their consultants. After this year-long education, the CPUC abruptly issued a decision in favor of, at best, managed competition among incumbent firms.

It is little wonder, then, that the customers (and the competitors who sought access to them) were deeply dismayed by the May 1995 decision that reversed the free-market course established in the Blue Book, ignored the pleas of the previous 12 months, and adopted a model that actually led to price *increases* in the United Kingdom. Only Commissioner Jesse Knight stayed the course. In a compelling "minority decision," Commissioner Knight urged real competition and persuasively answered the contentions of poolco advocates.

In the months that followed, the participants resorted to negotiations. Several of the chief combatants-Southern California Edison (a poolco supporter), a collection of independent power producers, and a collection of industrial customers (both of these latter groups being fans of "direct access")-came together on a settlement (the Memorandum of Understanding, or "MOU"). With a poolco order in the bag, Southern California Edison sought and got agreement to full stranded-cost recovery from consumers (notwithstanding the industrial customers' prior, vigorous objections to this kind of bailout). In exchange, the power producers and the industrial customers got open competition. The MOU market structure would have allowed direct access between customers and suppliers, without the need to go through the poolco. A poolco would be established, but it would be separate from the operator of the transmission and distribution system, and it would take transmission service on the same terms and conditions as any other user of the system. These requirements left the government-established poolco open to competition and without a competitive advantage derived from operation of the monopoly facilities of transmission and distribution. Its market-making capabilities would stand or fall on a level playing field with competitive providers.

In December 1995 the CPUC issued its current

pronouncement by a three to two vote. The decision appears partially inspired by the MOU. It is equal parts clever subterfuge and real progress from the May order.

Real Progress

In the "real progress" category are the following:

- Direct access is part of the program. So is the poolco (now with its functions split between the "Power Exchange" and the "Independent System Operator," or "ISO"). But customers will have the alternative of negotiating their own transactions with the supplier(s) of their choice.
- The CPUC will require utilities to file plans to divest 50 percent of their fossil-fuel generation assets to mitigate the effects of decades of government protection from competition. Unfortunately, this appears to be one of the weakest aspects of the order. It is not at all clear that utilities will have to do anything more than file the plans, though the process may very well lead to divestiture in the end.
- The CPUC proposes that utilities be permitted to share in the savings resulting from the renegotiation of power-purchase contracts with facilities that qualify under the Public Utility Regulatory Policies Act of 1978. Market-based solutions with substantial consumer savings opportunities are already on the table. The commission's decision should encourage utilities to act on these opportunities.
- The CPUC order also gives something more than lip service to a key MOU principle—that the poolco or power exchange be separate from the operator of the transmission system. The commission's nod to separation, however, is also where the biggest misdirection play resides.

Subterfuge

In the subterfuge category the entries are the following:

• While the majority goes to great lengths to assert that the power exchange will be separate from the ISO, the separation is far from complete. Indeed, the majority merely moves the function that many parties objected to when it was part of the poolco monopoly, economic dispatch, to the ISO monopoly. Arguably, the majority recreates poolco but redesignates it as the ISO. • The majority also rather remarkably continues an infirmity from the May decision—it makes the power exchange the only place where utilities may sell the output of their generation and the only place where they may purchase for their load requirements. This aspect of the order would effectively shut down the existing competitive bulk power market—the only source of cheap power in the California market.

• The majority decision would also leave central planners in charge of the transmission services market. Instead of providing transmission as a separate service and allowing parties to resell those rights in the marketplace, the ISO would override parties' transactions in favor of its own economic decisions about what sources of supply should be used to serve the market and relieve transmission constraints. Users of the system would find out after the fact what their service cost—a state of affairs only a monopolist could get away with.

The minority decision tracks the majority decision on many points but diverges in favor of a free-market approach in several key respects. First, the minority would be much more aggressive in allowing customers to begin choosing their suppliers, preferring to kick open the doors to competition, and scaling back only if the number of consumers requesting alternate suppliers overwhelms the system's ability to accommodate them. Second, the minority would not force (nor even encourage) utilities to purchase and sell only through the power exchange. Third, the minority would not leave any central entity in charge of "economic dispatch." Instead, economic use of resources would be left to the marketplace, as it is in most other areas of activity in our economy.

The December order's mix of encouragement and disappointments is not the end of the road. The CPUC recognizes that many of the matters discussed in the order are matters for ultimate resolution by the Federal Energy Regulatory Commission. The CPUC continues to seek comment on many aspects of its decision and provides a detailed catalogue of further filings and proceedings—all of which ensures that the restructuring wonks will remain fully employed a while longer.

> Steven J. Kean Enron Capital & Trade Resources

Market Protection against Another Oil Shock

Washington policymakers never seem to question the assumption that America's economic health requires a U.S. military defense of the Persian Gulf. In 1990 then-Secretary of State James Baker insisted to reporters that Operation Desert Storm was necessary to preserve American jobs; unfortunately, his assertion went unchallenged even by opponents of U.S. military action in the Gulf. There was virtually no discussion of other ways U.S. consumers might have protected themselves against sharp increases in oil prices or might be able to do so in the future. It is important to recognize now that a free-market alternative to military intervention exists in the form of crude-oil derivatives.

Privately negotiated risk-management contracts such as swaps and caps can protect fuel users from sharp increases in oil prices. These contracts amount to a kind of insurance against violence in the Persian Gulf or any other event that might cause prices to rise. Given that consumers have the opportunity to protect themselves from economic harm at relatively low cost, there is no reason to risk the lives of U.S. servicemen to protect foreign oil fields.

To be sure, the oil fields of the Persian Gulf are extremely valuable resources that benefit the world. Saudi Arabia and the smaller conservative sheikdoms such as Kuwait, Qatar, Oman, and the United Arab Emirates account for over one fifth of the world's crude oil output. Other Persian Gulf countries such as Iran are also very significant producers, and Iraq could be again. Probably half or more of the crude oil reserves in the world lie in these countries. Understandably, people in the United States are concerned about the possibility of Persian Gulf output being interrupted by war or changes of regime.

Nevertheless, Americans can protect themselves without resorting to the enormous human and financial expense of military action. Financial institutions such as commercial banks and investment banks already play a very large role in providing such protection. Through them, some consumers have already locked in energy prices by buying swaps or have established maximum prices for energy (caps) by buying average rate call options. Some use listed futures and options available from the New York Mercantile



Exchange, while others prefer customized contracts available in the over-the-counter market from banks, trading companies, and energy producers. The spot price of light, sweet crude oil has been quite volatile over the last 15 years, ranging between \$10 and \$40 per barrel. What fixed prices could one lock in today? I conducted an informal survey of swap dealers on November 27, 1995 that indicates prices of about \$17.75 for the period 1996-2000 and \$18.80 for the period 1996-2005.

This is at a time when spot crude is \$18.38. In other words, for many years into the future one can guarantee oneself crude oil prices that are lower than current prices. Just as home-buyers can choose between fixed-rate mortgages and adjustable, capped-rate mortgages, oil price caps are available to fuel buyers as well. In general, the lower the cap and the longer the maturity (i.e., the greater the protection), the higher the price for the cap. "Disaster" insurance turns out to be cheaper than many people expect. Anyone wishing to ensure that they pay no more than \$30 per barrel during 1996 would only have to pay 2-3 cents per barrel for that protection.

Extensive buying of energy derivative contracts would ultimately require that financial intermediaries "reinsure" themselves against a Middle East oil shock by entering into long-dated contracts with creditworthy hydrocarbon producers in regions subject to much less political risk. As a practical matter, this would mean producers in the United States, Canada, the United Kingdom, and Norway. It is obviously pointless to try to buy insurance from Middle Eastern producers-it is their riskiness that creates the demand for price insurance in the first place. Russia, West Africa, and Latin America are also politically risky regions. On the other hand, U.S., Canadian, and most North Sea producers are private entities that have a long history of honoring contracts and whose reserves are not threatened by invasion or insurrection. It is true that Western governments have interfered in their respective energy marketplaces in the past (price controls, supply allocations, import quotas, punitive taxes, etc.) and could conceivably do so again, but these are purely domestic political risks.

Some may wonder whether enough oil exists in these relatively stable regions to offset a Persian Gulf disruption. Marginal reserves in North America are in fact much larger than is commonly realized. These reserves do not show up in conventional measures because proven reserve figures are based on volumes that are economic to produce at current prices and with current technology. Systematic consumer-energy risk management would benefit western oil and gas production to the extent that it caused forward prices to rise. North American and North Sea producers would be able to exploit high forward prices by locking them in through the sale of derivatives contracts. Their marginal reserves, requiring significant up-front investment, would then be exploited to a much greater extent than would otherwise be the case. Moreover, with volume revenues secure, producers could fund development with debt capital rather than more expensive equity capital.

Owners of above-ground crude oil and refined product inventories have an important role to play. It was just such a role that the Strategic Petroleum Reserve (SPR) was meant to serve but has not. While it has accumulated a crude-oil

stockpile of well over half a billion barrels, the SPR has never had a coherent. systematic strategy for selling crude oil during periods when prices spiked upwards. Only small amounts were sold from the stockpile during the 1990-91 Persian Gulf War, and then only after prices had begun to decline from their peak. For the stockpile to have been of any use during periods of distress, SPR managers needed to have a coherent strategy in place and should have communicated their intentions beforehand. Part of the Energy Department's reluctance to sell barrels from the SPR resulted from fears that they would be reducing the stockpile before the shortage was greatest. They could have avoided this problem by doing time swaps that would not permanently reduce the stockpile.

Privately held inventories can be used much more effectively by selling spot crude oil during periods of distress and simultaneously buying it back for delivery in future months at a lower price. This accomplishes two things. First, it provides significant income during periods when the oil market is in "backwardation" (i.e., when the spot or near month price is higher than prices for future delivery). This is not an uncommon phenomenon in the oil market, and is particularly pronounced when fears of oil-supply interruption are greatest. Second, it would maintain the same volume of crude oil in inventory over time. The effect of systematic time swaps on the part of the crude oil stockpile managers would be to push demand for crude oil from the spot market (where it is highest during a crisis) to periods further in the future. This would provide time for fuel users to increase efficiencies and for North American producers to undertake investment, which would increase output. Supply and demand for oil and gas are not very elastic over short periods, but are much more so over longer periods.

Fortunately, many American businesses are already beginning to implement many measures suggested here. Airlines, courier services, trucking companies, and railways are already buying swaps and options on jet and diesel fuel to cover themselves for periods of one to three years forward. The deregulation of utilities has encouraged more extensive use of energy derivatives as risk management tools. Several utilities have bought swaps on natural gas and residual fuel for periods as long as 10 years. Some industrial corporations have done the same. Recently, the "Big Three" auto makers entered into a fixedprice power contract with Detroit Edison for a period of 10 years (which, in turn, involved fuel hedges on the utility's side).

Much remains to be done. State utility commissions should deregulate power generation further and do away with fuel adjustment clauses. Such clauses discourage utilities from locking in prices even when they are historically low. Utilities should also be encouraged to offer caps on future price increases to their customers. The U.S. government should permit individuals to buy insurance against increases in gasoline prices. This would involve eliminating the Commodity Futures Trading Commission's power to prevent retail customers from buying off-exchange commodity options (e.g., caps on gasoline prices). By allowing consumers and producers to use risk management tools voluntarily and systematically, we can mitigate the political risks of the Middle East and benefit from the relative security of North America and Western Europe. As these practices become more commonplace and familiar to consumers, a new conventional wisdom regarding U.S. security interests in the Persian Gulf may emerge.

> John McCormack Stern, Stewart & Co.

Regulatory Report Card

In the 1994 campaign, Republicans promised that if they won control of the House of Representatives, they would vote within the first 100 days on their Contract With America, which included planks on regulatory reform. They won, and voted on all planks, passing in various forms all but term limits. Unfortunately, a year after these votes, very little has changed. Serious deregulation might have to wait until future elections.

The climate for deregulation has improved since the Bush administration worked tirelessly to reregulate the economy, with the strong support of then-Senate Minority Leader Robert Dole and the Democratic majority in both houses of Congress. That era gave rise to the Americans with Disabilities Act, the Clean Air Act Amendments, a higher minimum wage, and a wetlands policy that jailed innocent Americans. Because it failed to socialize health care, the Clinton administration's record on balance has been an improvement over the Bush administration's. The efforts to "reinvent government," headed up by Vice President Al Gore, have brought some minor, beneficial reforms. But the Clinton administration has not been without its own ill-considered and harmful policies.

With the election of a Republican Congress came the expectation of real regulatory reform or rollback. Instead, most reforms, originating in the more pro-freedom House, have stalled in the status-quo Senate. The difficulties have two general origins.

First, reformers have not been as effective as the opposition in the public relations battle. For example, opponents of reform shamelessly misrepresented the nature of the property rights protection plank of the Contract. They were able to falsely represent the proposed regulatory moratorium as a direct threat to public health and safety, implying, for example, that it would allow contaminated food to be sold. The reformers still have not effectively articulated their long-term vision of what kind of regulatory regime they picture in the future. That vision should be one in which real threats to public health and safety are controlled at the local government level, and whenever possible, through property rights, contracts, and sensible tort law. The Republican failure is in part due to the fact that many reformers have not clarified their visions in their own minds. (For the views of one who has thought about the future, see the interview with Rep. David McIntosh in this issue.)

The second reason for the lack of significant regulatory reform is that in Congress there are two Republican Parties. One, which includes most of the House freshmen, Majority Leader Dick Armey and Majority Whip Tom Delay, truly wants to reassess the role of government and eliminate agencies and activities that are not a proper concern of the federal government or that should be left to the private sector. The other Republican Party consists of status quo "good-government" types who simply want to make the present system operate a little more efficiently. Many members of the second party aligned themselves with President Bush to foist on the economy many of the regulations that currently burden it. Part of the Clinton administration's regulatory strategy has been to offer minor reforms that are just enough to break off the status-quo Republicans from the true progressives, when the former do not frustrate the efforts of the latter on their own.

But the new climate in Washington has literally given pause to regulators who have in some cases exercised at least a modicum of caution with the considerable discretion that they have, lest they become targets of freshman Republicans bent on reining them in. Environmental Protection Agency (EPA) administrator Carol Browner, for example, backed off on attempts to foist on cities mandates that would have made employers monitor and regulate the transportation habits of their employees. And the Occupational Safety and Health Administration backed off on new ergonomic regulations in the workplace.

But the agencies, rules, and regulators that burden the economy are still in place. A change in political climate would allow them to continue expansion of their control over businesses and individuals.

For the most part, Congress receives a big "incomplete" for deregulation. A detailed evaluation should first consider progress on the Contract planks, found initially in H.R. 9. Second, an evaluation should focus on the 12 longer-term deregulatory targets identified in the pages of *Regulation* (1995 No. 2).

Contract Planks

Accountability for Unfunded Mandates Passed, signed into law. Grade: C

The only regulatory element of the Contract to become law, P.L. 104-4 requires the federal government to fully fund new programs as well as offset new costs in reauthorizations for mandates that cost \$50 million or more; however, Congress can bypass these requirements if it takes a separate vote to not cover costs. The Congressional Budget Office is charged with determining the costs of a mandate. While this law cannot stop a mandate, it can make visible the actual costs and force Congress to accept the blame for any adverse consequences of the mandates it imposes.

Property Rights Protection Stalled in the Senate. Grade if passed: B-

The version of this bill passed by the House, watered down from the original (H.R. 9, Title IX), would require the federal government to compensate property owners for certain regulatory takings if the value of their property is reduced by 30 percent or more. If the reduction is over 50 percent, the federal government must offer to purchase the property. This enforcement of the Fifth Amendment right to compensation for regulatory takings would be one of the most important steps in years toward reining in a runaway regulatory state and reestablishing constitutional government.

The Senate version, S. 605, while different in some ways from the House bill, still allowed for compensation for takings. But the bill is currently stalled.

Risk Assessment/Cost-Benefit Analysis

Stalled in the Senate. Grade varies, see below. The original, Contract version of this bill (H.R. 9, Title III) required that agencies assess the incremental costs and risk reduction associated with each proposed rule. This would mean accounting for the potential adverse effects of a proposed rule, instead of considering only the rule's potential benefits. Assessing incremental costs would mean that the utility of each additional degree of regulation would have to be taken into account. Further, the bill would require that evaluations be made on the basis of sound science, and would establish a peer review process for such findings. While this approach to regulatory reform has significant limits, it at least forces administrators, lawmakers, and the public to confront the probable costs and results of regulations. It merits a C.

The Dole version of this plank in the Senate (S. 343) is so watered down that it probably makes little difference whether it passes or not. It garners a D, at best. For example, rather than requiring that agencies show that benefits outweigh costs, agencies are required merely to "justify" costs that a regulation would impose. Further, the bill undermines assessment of incremental costs. An agency could attribute virtually any benefit to a proposed rule. With all of the loopholes, many agencies could easily get around the intent of the law. This bill is still one vote short of the 60 votes needed to shut off a filibuster by opponents.

A related form of legislation, S. 219, was introduced by Sen. Don Nickles (R-Okla.), and passed unanimously by the Senate. This bill would require new regulations, after they have been finalized by the executive branch, to go to Congress for a 45-day review before they take effect. If enough members object, the regulation would be subject to a straight up-or-down vote before it could take effect. If no member objects, the rule becomes law. The Nickles bill would be a major step toward restoring accountability for regulations to Congress, the only body empowered by the Constitution to make laws. It merits a B+. However, ideally the executive branch should not make laws subject to a veto by Congress. The Constitution establishes a system that is supposed to work the other way around.

Regulatory Budgeting

Dead. Resurrection possible.

Regulations are a way, in addition to taxes, that governments transfer or restrict the use of an individual's resources. The regulatory burden on the economy is estimated at \$600 billion annually. The Contract (H.R. 9, Title IV) would have required that the executive branch each year submit a regulatory budget to Congress, with requests and estimates of specific regulatory burdens it seeks to impose on the economy in the same way that the executive must secure approval from Congress to impose taxes and expend funds. While this approach faces daunting problems with calculation similar to those faced by the risk assessmentcost/benefit plank, it would force the government each year to grapple with the costs of regulation.

Regulatory budgeting did not make it into the final House version of the bill. Rep. Lamar Smith (R-Tex.) is reintroducing a budgeting mechanism in the Regulatory Accountability Act.

Protection against Federal Regulatory Abuse Dead.

One provision of the regulatory section of the Contract (H.R. 9, Title VIII) would have established a "Citizens' Bill of Rights," with initial safeguards against arbitrary search and seizure by regulators. While conceptually a good idea, the bill was poorly drafted and did not make it to the House floor.

The Dirty Dozen

In areas and issues suggested for reform in these pages, the grades are pretty uniformly "incomplete." There was reform in telecommunications and environmental law, as well as some small or proposed reforms in other areas.

Telecommunications

Signed into law. Grade: D+

It was the best of times, it was the worst of times. Congress had an opportunity to privatize the broadcast spectrum, selling it to the highest bidders for cellular phone use, radio or television broadcasts, or whatever the best market use might be. It could have eliminated all restrictions on local and long-distance telephone and cable companies. Instead the law offered a mix of good and bad.

First the good news. Local phone companies will be allowed to provide cable services immediately, and long distance service for customers anywhere outside their local service area. They will be allowed to provide long distance service to their own customers only after other competitors enter their market. Cable companies and AT&T will be able to enter local markets.

Unfortunately, the telecom law mandates expanded interconnection and requires local service providers to offer resale benefits to their competitors. The law also mandates bundles of services and imposes universal service requirements on phone companies.

The broadcast spectrum remains in government hands. Worse, Congress allocated large portions of the spectrum, valued at as high as \$37 billion, to major broadcasters for future use for high resolution television, even though there are other potential users who would pay for this spectrum.

The legislation also requires television manufacturers to install V-chips, which would allow parents to lock out programming they do not wish their children to view. In addition to being an unwarranted infringement on business (if parents really clamor for such a feature, manufacturers will offer it), it sets a terrible precedent for future government attempts to control speech by manipulating technology.

Worse is the explicit censorship of the Internet. Specifically, the telecom law makes it a crime to knowingly display indecent or patently offensive material to children under 18. This broad and vague standard, unless struck down by the courts, will pose a real threat to free speech.

Clean Air Act

Limited relief so far. Grade: C-

This act applies strict command-and-control regulatory mandates to combat a wide range of air quality problems. Rather than reexamining the federal government's role in local air pollution control policy, Republicans in both chambers focused on removing some of the most obnoxious mandates. But limited relief is better than no relief at all.

The National Highway System Designation Act (P.L. 104-59), signed into law on November 28, allowed states to continue decentralized automobile emissions inspection and maintenance programs for at least 18 months.

P.L. 104-70, signed into law on December 23, makes voluntary the commuter vehicle trip reduction mandate of the 1990 Clean Air Act Amendments.

In and of themselves, both of these bills were well advised and of real consequence. Yet most of the 1990 Clean Air Act Amendments remain in place, to say nothing of the staggering inefficiencies of the pre-1990 Clean Air Act. In a targetrich environment, the Republicans were content to take a few easy shots and then go home.

Safe Drinking Water Act Grade if passed: B-

The federal "one size fits all" regulations not only impose unnecessary costs on providers of drinking water, they also force localities to devote resources to minor problems, which leaves less for major ones.

The Senate passed S. 1316, a bill to reform the Safe Drinking Water Act, by 99-0. The bill would give states greater flexibility by allowing them more discretion over how federal grant dollars are spent. The bill would also overhaul the standard-setting process, for example, by: repealing the mandate for the EPA to set forth standards for 25 new contaminants every three years; requiring EPA cost/benefit analysis of new standards; allowing standards to be set above the zero-risk level for carcinogens and requiring reviews of other contaminant regulations; and establishing a voluntary, rather than a mandatory, source-water protection program. Unfortunately, the Senate bill calls for new regulations for cryptosporidium, radon, and arsenic concentrations; these regulations are either gratuitous or completely unnecessary.

In the House, H.R. 2747 is slightly weaker than the Senate bill and has yet to be voted on. The Senate bill, if passed, would be quite an improvement over current law, but does not address the question of why the feds are micromanaging local drinking water services in the first place.

Superfund

Still fighting over reform. Grade if passed: C

In the name of cleaning up toxic waste sites, Superfund levies taxes on businesses that produce no toxic waste, mandates that businesses deal with alleged problems not of their creation, and passes out pork to localities according to political pull. The law should be repealed.

Divisions within Republican ranks prevented either chamber from voting on a reauthorization bill last year. Sen. Robert Smith's bill, S. 1285, would repeal retroactive liability for pre-1980 disposals while providing a 50 percent tax credit for cleanups promptly undertaken, a provision opposed by Senate Majority Leader Robert Dole, who objected to the revenue losses that would result. In addition, the bill would: allow states to assume responsibility for cleanups and give them the power to veto the addition of sites to the National Priorities List; require cleanup standards to pass cost-benefit analysis and comply with standardized risk assessment practices; limit awards for natural resource damages; and cap the number of new sites that could be added to the National Priorities List.

A House bill, H.R. 2500, does not repeal retroactive liability; but it does attempt to limit the EPA's regulatory jurisdiction.

Both bills would be an improvement over the current Superfund law, but each fails to (1) transfer meaningful responsibility for cleanups to the states; (2) seriously reconsider the risks supposedly being addressed by cleanup; or (3) completely address the absurdities of retroactive liability.

Agriculture Reform

Grade if passed: C-

Rep. Pat Roberts's "Freedom to Farm" bill would eliminate government price floors for such commodities as wheat, allowing the market to set prices. Over a period of seven years, farmers would be paid a declining percentage of the subsidies they were receiving when the program began. This is a good approach to phasing out subsidies and would constitute a major break with decades of government regulation of the farm sector.

Unfortunately, neither the Senate nor the House versions of this plan would eliminate the program entirely at the end of seven years. In addition, the government payments to farmers not to grow crops are not eliminated. In the Senate version, spending on environmental setasides goes up. Further, a "Freedom to Milk" plan that would have phased out the dairy cartel and price controls was blocked in the House. The alternative plan, part of H.R. 2854, would actually raise the price of milk.Nor has anything been done with the peanut and sugar programs.

Transportation

Some minor reforms. Grade so far: C

The national speed limit was eliminated. Congress gets a big plus for this.

The Interstate Commerce Commission (ICC) was shut down. This agency has done little since trucking deregulation began in the late 1970s, except to collect and file paperwork from trucking companies. Such information is no longer needed, since the government no longer controls trucking prices. But in place of the ICC, Congress created a Surface Transportation Board to keep records and oversee antitrust regulations that apply to railroads. Many ICC employees will continue their useless efforts, only in another building, with different titles on the doors.

The antiquated air traffic control system is still in government hands, and federal regulations still place burdens on the ability of airports (owned mostly by local and state governments) to meet the high volume of flights that resulted from airline deregulation starting in the late 1970s.

Banking Reform Going nowhere.

In the first two years of the Clinton administration, many remaining restrictions on interstate banking were removed. The seemingly easy next step should have been to repeal the Glass-Steagall Act, thus removing the limitations on the kinds of services that banks can provide. For example, repeal would have allowed commercial banks to get into securities trading. But in the House, insurance brokers lobbied successfully to block reforms that would have allowed small banks to sell insurance. The Senate has yet to hold hearings on the matter.

One small blessing: Congress did reform securities law by tightening conditions under which shareholders could sue companies.

The Community Reinvestment Act (CRA) Limited reform stalled.

The CRA forces banks to lend certain amounts in the communities in which they are located; in effect, the federal government now engages in race-based extortion through the CRA, mandating that banks make risky loans. The Clinton administration early on wielded this weapon with a heavy hand. A House bill originally would have exempted banks under \$100 million in size from the CRA and allowed self-certification of banks between \$100 million and \$250 million. But Clinton administration concerns about the bill probably mean that it will go nowhere.

Food and Drug Administration (FDA) Long-term promise.

Commissioner David Kessler, a Bush appointee, has made headlines for persecuting the tobacco industry, despite the fact that the industry does not produce food, pharmaceuticals, or medical devices, the products over which FDA has jurisdiction. Of late, Kessler has made a show of approving some high-profile drugs that have languished at the FDA.

This is unlikely to derail deregulatory efforts. In Washington, many groups and industries have been strategizing, holding conferences, and issuing publications on FDA reform. Some proposals in Congress would make small changes, for example, liberalizing advertising and export restrictions. But there is enough frustration with the FDA, and the adverse effects of the agency's actions are severe enough, that the agency should remain a likely target for long-term reform or even abolition.

The Americans with Disabilities Act (ADA) Not on the radar screen.

Though the ADA is one of the costliest of the Bush administration regulations, especially in terms of lawsuits, no members of Congress have made serious attempts to amend or repeal this legislation. However, the ADA was mentioned in a report on unfunded mandates issued by Congress as a follow-up to the passage of S. 1, requiring congressional review.

Labor Reform

Still laboring for change.

The Davis-Bacon Act mandates that contractors on federally financed jobs pay workers "prevailing wages," which is interpreted by the Labor Department to mean union wages. This is the labor equivalent of the \$900 hammer, and seemingly an easy target for budget cutters, who could save up to \$3 billion annually. This act might have been effectively neutered in the budget process itself. Unfortunately, the efforts of Rep. John Kasich (R-Ohio) were frustrated.

It might be too much to expect this Congress to

eliminate the Occupational Safety and Health Administration (OSHA), even though worker safety is affected primarily by the wage and workers' compensation premiums on more risky jobs, rather than federal regulations. But some reforms could be expected. In response to concerns over shrinking budgets and congressional action, OSHA officials have considered focusing resources on the worst violators of safety laws, and allowing self-certification for firms with good safety records. They are just keeping ahead of Congress.

Rep. Cass Ballenger (R-N.C.) is the major sponsor of legislation, H.R 1824, that among other things would shift OSHA's focus from adversarial inspections and penalties to consultations with businesses. It would exempt businesses with good records from routine inspections. And it would require workers to bring safety complaints first to management rather than to the Labor Department, giving enterprises a chance to correct problems voluntarily. A Senate bill, S. 1423, sponsored by Nancy Kassebaum (R-Kan.), contains similar changes. The Clinton administration has threatened to veto any bill containing such reforms.

The Teamwork for Employees and Managers Act (H.R. 743, S. 295) would allow enterprises to set up quality circles and engage in other activities to improve worker-management relations without going through unions. This would be a significant improvement in labor law, and still has a chance of passing Congress. President Clinton, however, would likely veto this bill to protect his union support.

One missed opportunity was a lost vote to repeal Section 13C of the 1964 Urban Mass Transit Act. This section requires public transit companies, as a condition for receiving federal aid, to guarantee transit employees that their interests will not be damaged by activities or changes in the transport system financed by these grants. This has allowed unions to secure special benefits and hold down productivity improvements in urban transit systems. Repeal of this section would have been a "twofer": better labor and transportation law.

U.S. Postal Service

Still the last monopoly.

House Speaker Newt Gingrich (R-Ga.) promised Rep. Phil Crane (R-III.) and Rep. Dana Rohrabacher (R-Calif.) a hearing on privatizing the federal government's last major monopoly. Unfortunately, Rep. John McHugh, (R-N.Y.) chairman of the committee overseeing the Postal Service, froze out most of the witnesses who favored privatization, missing an opportunity to set the groundwork for privatization. Postmaster General Marvin Runyon has managed to deal with some of the more shocking cases of lost or delayed mail that have come to the public's attention in recent years.

But more and more, the defects of the Postal Service stand in contrast to the successes of the private-sector-created telecommunications revolution. Critics compare e-mail to the Postal Service's "snail mail." And the successes of private couriers such as Federal Express will add to the pressure for reform. If the leadership in Congress decides to make postal privatization a priority, this still could become a free-market victory. (See the upcoming Cato Institute book *The Last Monopoly: Privatizing the Postal Service for the Information Age* for a detailed discussion.)

Edward L. Hudgins

Clean Air Reform for Real

Two years ago the idea of reforming the 1990 Clean Air Act Amendments was a pipe dream for free-market advocates and regulated industries. The environmental poster child of the Bush administration, the 1990 act was off limits, despite its status as the single most expensive environmental law ever enacted.

Lobbyists who worked on the amendments for years seeking a passable compromise have little interest in reopening this can of worms. Even environmentalists and government regulators who recognized the flaws in the law had no interest in putting federal clean air laws on the table, lest they trigger a feeding frenzy of special interests seeking special deals.

That was how it was, but by 1995 the excessive costs of federal clean air regulations had become too much to bear. Clean air reform is now back on the table—if only for a moment.

Burdens on the States

The impetus for reform is not industry griping;

corporate whining about the excessive costs of compliance would not have been enough to bring the issue into play. Rather, the key factor has been the concerns raised by state and local governments, led by a handful of outspoken and influential Republican governors, such as George Allen of Virginia and John Engler of Michigan. Both appeared before congressional committees in 1995 demanding changes in the act. Some in Congress were obviously listening, because not long after a reform proposal drafted by Sen. Lauch Faircloth (R-N.C.) began circulating on Capitol Hill.

The most vociferous complaints about the Clean Air Act Amendments result from its draconian regulations governing automobiles. Metropolitan areas designated as "serious" or "severe" ozone nonattainment areas—in other words, cities the federal government declares are "smoggy"—must implement enhanced automobile inspection and maintenance programs, federal clean fuel programs, and prepare to implement "transportation control measures" that will induce car owners to drive less often (though the compulsory nature of this last measure was eliminated by a congressional "correction" signed into law by President Clinton in December 1995).

These policies are all extremely costly, but not all promise significant environmental benefits. Indeed, the sort of "drift net" strategies in the act achieve reductions due to their scope, not their efficiency. A minority of the automotive fleet is responsible for a disproportionate share of the emissions. Yet the 1990 amendments fail to target emission reductions on the greatest emission sources, so they are far less effective and equitable than other potential approaches.

To make matters worse, so-called stationary emission sources—firms and factories—must deal with Title V, the 1990 amendment's onerous permitting provisions, and Title III, governing air toxics. Under Title V, some 34,000 industrial facilities around the country must file voluminous permit applications to state environmental agencies and revise them each time they wish to modify existing production procedures. This paperwork-producing program comes at significant cost. Chemical manufacturer Elf Atochem, for example, estimated that the permits for its larger facilities will cost \$150,000 to \$200,000 each.

Title V not only makes companies bristle, it imposes a significant burden on state regulators as well, as state agencies are required to process Title V permit applications for the federal Environmental Protection Agency (EPA). This is no easy task. In Ohio, for instance, the state EPA planned to hire more than 100 new employees simply to process the 1,500 permits that are expected within the state. All told, the federal EPA estimates that Title V will cost over \$500 million per year (more, according to outside analysts) for little environmental benefit. In fact, Title V has no explicit environmental component. It is simply a means for the government to acquire information (read: generate paperwork).

Then there is Section 112(g), an air toxics provision that requires states to impose facility-by-facility emission controls as temporary measures before federal, industry-wide rules are enacted. The provision only applies to sites that are undergoing modifications, but it still creates the awful specter of companies wasting thousands of dollars to comply with state-level regulations that will be supplanted by EPA-generated rules. In other words, some companies will pay to comply twice in order to achieve one goal, a requirement that even the EPA acknowledges will not do much for environmental protection. In some cases the cost may be high enough for companies to shelve planned modifications that would actually reduce emissions.

The Faircloth Proposal

To address these concerns and a few others, Senator Faircloth drafted the Clean Air Simplification and Efficiency Act to eliminate needless provisions within the 1990 amendments and expand flexibility at the state level. Specifically, the act would eliminate Section 112(g), allow states to design their own vehicle emission inspection programs, enable states to opt out of the federal Title V program in favor of a state-designed operating permit program, and make some additional definitional revisions. The proposal would also provide a good-faith exception to the imposition of sanctions for states that fail to meet regulatory deadlines.

Faircloth's is a modest proposal, but one that could provide significant benefits for both states and regulated industries. If there is a surprise in the draft bill, it is that with so much that is wrong in the 1990 amendments, it would change so little.

The modest nature of Senator Faircloth's plan has not deflected criticism, however. In fact, some environmental groups have reacted as if it threatens the lives of countless Americans. When early drafts of the bill were leaked, environmentalists hurled angry accusations that Faircloth was in the pocket of chemical companies. Some even tried to suggest that Faircloth was motivated by his interest in commercial ventures—hog farms—that could be subject to clean air rules. Despite all this, the severest attack on the proposal came not from Washington's private environmental lobbies, but from the federal EPA.

The EPA Defends Its Turf

On December 18, 1995 the EPA released an analysis of the draft proposal. The report, requested by Senator Faircloth's office, was supposed to be a technical analysis of the proposal. Upon review, however, it is clear that the EPA is more concerned with preventing *any* legislative changes to the Clean Air Act than with the specifics under consideration. Faircloth's office called a spade a spade when referring to the report as a "political document." This is the only way to explain the EPA's conclusion that the Faircloth proposal would "substantially impede ongoing efforts, by both states and industry, to clean the air and protect public health."

Far from a technical document, the EPA report is replete with misleading analysis and arguable claims. Its overall thrust is to suggest that giving states increased flexibility to meet federal air quality standards compromises clean air efforts and risks Bhopal-like disasters. The analysis goes so far as to suggest that the proposed revisions "would take clean air policy back to the failed approaches of the 1970s," even though the EPA has trumpeted the air quality improvements of the past decade during recent congressional debates over funding of EPA programs.

The EPA's claim that state efforts to improve air quality and meet federal air quality standards will be undermined by the Faircloth proposal is belied by the fact that the states have been the strongest and most consistent group agitating for modifications to the 1990 amendments, particularly those modifications that shift authority over the design of clean air programs to state agencies. Not only have numerous governors testified before Congress that legislative changes are necessary, but more recently the Republican Governors Association's Clean Air Task Force released a policy paper calling for significant changes to the 1990 amendments due to the "onerous problems States are experiencing with the implementation" of the act. The changes recommended in this paper include several of the items contained in the Faircloth proposal, among others. It is generally accepted by those close to this issue that the Governors Association paper, more than any other, was the primary influence on the Faircloth proposal. Still, just as Faircloth only targets the 1990 act's most glaring deficiencies, the Governors Association's Clean Air Task Force noted that "the policy paper is by no means a comprehensive list of all the problems identified with the Clean Air Act."

Impact of the 1990 Amendments

In seeking to deflect the calls for reform, the EPA attributes recent improvements in air quality to the Clean Air Act Amendments of 1990. This is preposterous. As anyone familiar with recent air quality trends is aware, there have been significant air pollution reductions throughout the past decade, particularly for ground-level ozone and carbon monoxide. In the case of carbon monoxide, the record is striking, as atmospheric concentrations of CO have consistently declined since 1970-a trend that not even the most ardent apologist for current regulatory programs would attribute to the 1990 amendments. There have been greater fluctuations in ambient ozone concentrations, but this is largely due to meteorological fluctuations. Temperature adjustments of the underlying data, such as those conducted by former Council on Environmental Quality analyst K. H. Jones, clearly show a downward trend predating the 1990 amendments by several years.

The claim frequently made by the EPA, that "in 1990, almost 140 million people still lived in communities that violated the health standard for smog," is equally misleading. It is true that approximately 140 million people lived in ozone nonattainment areas in 1990. This is due to the abnormally warm summer of 1988 that produced an unusual number of high ozone readings in metropolitan areas. By 1991, before the 1990 amendments had taken effect, the number of people living in nonattainment areas had been cut in half. Moreover, it is important to recognize that the nonattainment classification is based upon high one-hour pollution readings at a single monitor in a metropolitan area, and is not necessarily a valid indicator of threats to public health.



As to the effect of the 1990 amendments, they have yet to be fully implemented. Any air quality benefits attributable to the amendments, particularly in the area of ozone and carbon monoxide nonattainment, are not likely to be noticed for several years. This is a necessity in the case of attainment status, as such classifications are based upon a rolling three-year window. Yet neither the 1991-93 window, nor any later threeyear window, shows a precipitous drop in ambient ozone levels that could be attributed to the 1990 amendments. Rather, as noted above, there has been consistent, if uneven, improvement in urban air quality over the past decade.

In many specific instances the EPA claims that legislative amendments are unnecessary because the desired changes can be achieved under current law: "Don't force us to be good because we can be good if we want to be." Yet for whatever reason, the EPA has opted to administer the act in a heavy-handed manner, disregarding the concerns of the states—that is, prior to congressional threats to reopen the act.

With the onset of political pressure, the EPA now claims to be modifying existing regulations to address the concerns that are prompting consideration of the Faircloth proposal. In at least one instance, the agency is proposing regulatory changes that were explicitly rejected when the Clinton administration took office. In July 1994 EPA administrator Carol Browner proclaimed that "the Quayle Competitiveness Council is officially out of business" when the EPA announced a tightening of Title V permit requirements. Now the EPA is reviving parts of the Quayle approach as part of the "reinventing government" initiative. What were once considered loopholes are now seen as common-sense regulatory reinventions. These most recent changes are clearly the result of political pressure and could easily be reversed by the EPA absent legislative action.

Washington Knows Best

An underlying premise of the EPA's resistance to reform seems to be that states are incapable of improving air quality absent complex, detailed mandates from the EPA. For instance, in opposing flexibility in the development of automobile emission inspection and maintenance programs, the EPA charges that eliminating the requirement that all moderate nonattainment areas adopt such programs will "exacerbate the difficulty" that "many" moderate nonattainment areas have meeting federal air quality goals. This is nonsense. There is no reason that a state cannot implement a program merely because the federal government no longer requires it. If implementing an inspection and maintenance program is a relatively cost-effective emission reduction measure for a moderate nonattainment area, it is likely that it will be implemented. If not, the area in question will impose some other measure, for there is nothing in the Faircloth proposal that relieves states of the obligation to meet federal air quality standards.

Similarly, the EPA assumes that any control measures that are not "federally enforceable," even those mandated by state agencies, cannot be relied upon to control emissions, and therefore should not be considered when determining a facility's "potential to emit." The draft Faircloth proposal would include "any physical, operational or federal, State, or local legal limit on the capacity of a source to emit any regulated air pollutant" as a limit on a facility's potential emissions "if the limitation is effective." The EPA claims that this would "enable facilities to avoid Clean Air Act requirements" and therefore presents a threat to public health. The agency even goes so far as to argue that under this provision, "There would be no way for a State air pollution agency to ensure that pollution control devices

are in place and properly maintained." Again, the EPA presumes that states are environmentally impotent unless forced by the EPA and federal statute to implement particular measures.

But it is simply not true that federal dictates are the only means of achieving environmental improvements. Each region of the country is different, and the proper mix of environmental measures is different from place to place. "One size fits all" is all too often "one size fits nobody." If there are to be continued environmental improvements in America, they will result from decentralized, often state-driven, efforts. Whether the Faircloth clean air proposal passes or not, the era of "Washington-knows-best" environmental policy is over. It is time for the EPA to accept that fact.

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Deregulating the Semiconductor Industry

For nearly a decade, a trade agreement called the U.S.-Japan Semiconductor Agreement has regulated the world's supply of semiconductors, costing consumers hundreds of millions of dollars in higher prices for products that use these advanced electrical transistors. Because of the agreement, world purchases and distribution of semiconductors are often determined by sophisticated mathematical formulae and government bureaucrats, not the desires of buyers and sellers. With the agreement set to expire in July 1996, some argue that both the health of the world semiconductor industry and the viability of U.S. semiconductor manufacturers are dependent upon its extension.

Yet while most industry experts agree that the semiconductor market has changed drastically since 1986 and the agreement has outlived its usefulness, the Clinton administration seems poised to pressure Japan for the agreement's renewal. The president's actions are not based on sound economics; rather, they appear to be political posturing for the upcoming presidential elections. President Clinton's advisors have long held that being tough with Japan wins votes. Moreover, the Clinton administration believes that "managing" international trade from Washington is far more beneficial than leaving it to the invisible hand of the market.

Growing Market Share

Supporters of President Clinton's managed-trade approach assert that the 1986 U.S.-Japan Semiconductor Agreement forced Japan to buy more American-made semiconductors and reversed America's declining world market-share in semiconductors. This simply is not true. Indeed, the United States has increased market share in Japan. In 1986, for example, the United States held only about 9 percent of the Japanese market. In 1991 the United States and Japan extended the agreement for five more years. At that time U.S. market share had inched up only a few percentage points to about 14 percent (consistent with basic market trends). But by the third quarter of 1995, U.S. market share in Japan exploded to over 26 percent.

The United States went from being the world's second largest semiconductor manufacturer in 1989 to being the biggest in 1994. America now controls more of the world's market share in semiconductors than Japan. Clearly, the U.S. semiconductor industry is more competitive and more prosperous today than it was before the U.S.-Japan agreement was in place. The question is, how much of America's renewed success in semiconductors has to do with the agreement and how much has to do with market forces and the sound business decisions of private companies? The answer is simple: America's renewed success has occurred despite the government's managed-trade policies.

Joint Partnerships

While some supporters of the 1986 agreement allege that it obligated the Japanese government to give 20 percent of the Japanese market to foreign companies (actually, there is no such obligation), any references to these numbers were deleted when the agreement was extended in 1991. Instead of focusing on numerical targets, the Bush administration added language stating that both governments would remove any barriers to the formation of private-sector joint partnerships.

The mere mention of joint partnerships in the

agreement gave the green light for an avalanche of trans-Pacific strategic alliances between U.S. and Japanese companies. Some of the alliances could have been challenged under America's antiquated antitrust laws. But with the encouragement of both the U.S. and the Japanese governments, private-sector joint ventures took off. In fact, in 1991 there were less than a dozen major semiconductor alliances between the United States and Japan. Three years later, in 1994, there were more than three dozen. The number continues to grow today.

These alliances gave U.S. firms, which had advanced chip designs but inferior manufacturing abilities, access to advanced Japanese manufacturing techniques. They also gave U.S. firms locating in Japan with local partners, access to Japan's complex distribution system, marketing expertise, and its customers. Thus, if the agreement had any impact at all, it was not the "guaranteed" numerical targets, but the private business decisions to move forward with private-sector joint ventures.

In addition to these alliances, the United States was well prepared for competing in the 1990s. For example, the U.S. semiconductor industry made a sound business decision in the mid-1980s to walk away from low-end-memory computer chips, mainly dynamic random access memory chips, and instead continue to produce high-profit, sophisticated microprocessors like the Intel Corporation's Pentium computer chip. These two events permitted American companies to capture more and more of the Japanese and world semiconductor market.

Let It Lapse

Yet even if the Clinton administration refuses to acknowledge that the private sector and not the agreement was responsible for restoring America's preeminence in semiconductors, there are other compelling reasons why the president should not extend the agreement.

Objectives Fulfilled. While the agreement specifically states that the 20 percent foreign market share in Japan is a U.S. industry "expectation" and not a "numerical target" or a "guarantee," this "expectation" has been realized. Though the United States had only 5 percent foreign market share in Japan in 1985, it reached the 20 percent mark by the end of 1992. Today the U.S. share is around 23 percent. Moreover,

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while total foreign sales of semiconductors in Japan in 1986 amounted only to \$900 million, today foreign sales are worth over \$6 billion, a sevenfold increase. It seems difficult to argue that Japan's market is closed today to foreign semiconductors.

The Much-Changed Industry. The face of America's once-struggling electronics industry has changed. But perhaps the biggest industry changes have occurred in Japan. In the early 1980s most Japanese semiconductor production was concentrated in specific companies. Few foreign companies even operated in Japan. Eventually, most Japanese consumer electronics manufacturers found it cheaper to produce their own semiconductors. As a result, there was an explosion in low-end semiconductor manufacturing. This produced intense competition and was partly the cause of the collapse in memory chip prices in the mid-1980s. The Japanese response was to seek increased joint-production alliances with foreign firms. This allowed Japanese manufacturers to reduce production costs.

As a result, today there are dozens of Japanese alliances with foreign manufacturers. Thus, instead of an industry where many Japanese electronics companies are attempting to manufacture every conceivable semiconductor, today's industry is specialized. One company may focus on one type of semiconductor used as memory chips in computers, while another may specialize in special semiconductors used in products like cellular phones. Such specialization requires increased dependence on foreign and imported semiconductors. Thus, most of Japan's imported semiconductors come from the United States. For example, Japan is dependent on the United States for most of its microprocessors used in personal computers.

Billions in Profits. While many U.S. semiconductor companies had few profits to speak of in the 1980s, today they are racking up record profits. Intel Corporation has made over \$2 billion a year in net profits since 1993. In 1994 Intel had net revenues of over \$11.5 billion, up from \$8.7 billion in 1993. Intel company alone controls as much as 75 percent of the world's microprocessor market. But it is not the only U.S. company that is prospering. Indeed, the entire U.S. semiconductor industry is richer today than a decade ago, and future projections paint a very bright picture. For example, in 1995 world semiconductor sales increased by about 40 percent over 1994. Most of those sales went to U.S. companies. Sales are expected to increase at least 20 percent annually over the next decade.

Exceeding Demand. The challenge facing American semiconductor manufacturers has changed since the 1980s. Then American firms had trouble keeping up with the Japanese and were stuck with an abundance of semiconductors that exceeded U.S. demand. Overseas markets were crucial. In contrast, even with record reinvestment in new manufacturing facilities, the biggest problem facing American semiconductor manufacturers in the future will be producing enough products to meet future demand. If only all U.S. industries faced such hurdles.

While Clinton may try to push forward with his plan to get tough with Japan, the U.S. semiconductor industry will be making record profits regardless of the outcome. Rather than rely on managing and regulating international trade from Washington and Tokyo, the Clinton administration would do well to step aside and allow the U.S.-Japan Semiconductor Agreement to expire of its own accord. In its place is a solid foundation of private business partnerships that have made American companies more competitive and more profitable.

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Regulatory Reform in the Electric Power Industry

Vernon L. Smith

• conomists have traditionally argued that the production and distribution of electric power—along with telephone, water, and natural gas services-were natural monopolies: economies of scale implied that the natural economic result was for only one company to emerge and for monopoly prices to prevail. Consequently, efficiency and fairness required that such industries must either be owned and operated by the government or regulated by it. In Arizona, for example, monopoly was such a concern to the framers of the state constitution that they explicitly affirmed that "monopolies and trusts shall never be allowed in this state." An early position taken by the Arizona Corporation Commission applied this concept to electric power: "We believe that ordinarily the distribution of electric energy is essentially and rightly monopolistic in its application."

This view has served to rationalize a political equilibrium in this country in which most electric utilities are privately owned, but subject to price controls based upon "fair" rate of return regulation. In many foreign countries, including the United Kingdom, New Zealand, Chile, and

Vernon L. Smith is Regents' Professor of Economics and director of the Economic Science Laboratory at the University of Arizona, Tucson. several other South American nations, the electric power industry has until recently been owned and operated by central governments. However, the traditional argument for natural monopoly is buckling under the forces of change, and its proponents are now on the defensive.

The convergence of a number of intellectual, political, and economic developments, beginning in the late 1970s and continuing through the 1980s, has inspired many analysts to radically reevaluate the traditional view of natural monopoly. These recent developments include: (1) revisionist views on the origin of state utility regulation; (2) theoretical and empirical challenges to the natural monopoly view of the electric power industry; (3) incentive problems under rate of return regulation; and (4) the worldwide economic failure of government utility ownership and regulation, which weakened political opposition to reform.

Revisionist Views of the Origins of State Utility Regulation

The folklore that the original purpose of regulation was to protect consumers from monopoly prices is now being challenged. From 1879 to 1907 electric utilities were not subjected to any price regulation. They were required to obtain