

OPEN ACCESS AND MARKET POWER IN ELECTRIC POWER TRANSMISSION

The Federal Energy Regulatory Commission (FERC) decided in 1993 not to investigate the competitive effects of the pending merger between Entergy and Gulf States Utilities. FERC reasoned in part that "open access" transmission conditions offered by Entergy and Gulf States Utilities eliminated concern over market power in transmission and bulk power. FERC's reasoning is flawed. If the merger increases market power, the transmission conditions will not prevent the merged firm from exercising that power.

FERC's reasoning indicates that it lost its way in carrying out its responsibilities to protect consumers. Open access to transmission systems may play an important role in increasing competition in bulk power markets. However, FERC's goal should be to promote competition, not merely to open access for its own sake. In its enthusiasm to secure open access, FERC appears willing to ignore possible reductions in competition.

One reason for concern over FERC's decision in the Entergy/Gulf States merger is that competition plays a significant role in determining prices of wholesale power and transmission service in spite of cost-based regulation. Competition plays an especially important role in wholesale transactions among electric utilities. Under competition, transmission rates could be substantially below rates allowed under the Entergy/Gulf States tariff. For example, where excess capacity exists, competitive transmission prices may be no greater than actual transmission losses plus transaction costs.

Transmission conditions of the type imposed on merging utilities by FERC since *Utah Power & Light* in 1988 are very different from the conditions normally imposed by the federal antitrust agencies. The antitrust agencies avoid making merger approval conditional on ongoing regulation of the merged firm. If the antitrust agencies determine that a merger would

be likely to lessen competition, they often require the parties to divest certain assets to eliminate the competitive problem. A divestiture, unlike FERC's transmission conditions, does not involve an increase in market power combined with continuing regulation of the merged firm. A divestiture prevents the lessening of competition in the first place.

In the electric utility industry, approving a merger conditional on ongoing regulation, as FERC has done, is inferior to protecting competition through denial of a merger or a divestiture requirement. Regulation creates incentives to behave inefficiently and raises the cost of supplying electricity. Enforcement of and compliance with continuing regulation is costly for taxpayers, regulated firms, and, ultimately, ratepayers. Moreover, regulatory approaches typically do not prevent exercise of market power.

It is important to distinguish between market characteristics that are sufficient to justify market-based instead of cost-based regulated prices for power or wheeling service, on the one hand, and market characteristics that are sufficient to justify mergers. When FERC evaluates market power in a decision on market-based pricing, the appropriate comparison is between conventional regulation and market-based pricing, combined with transmission conditions if necessary. The issue is to compare the substantial costs involved in conventional regulation against the

ALSO IN THIS ISSUE

- Regulation of the Auction Market For U.S. Treasury Securities: An Update
- Costs and Benefits of Pesticide Ban
- Selected EI Cases in 1993

likelihood of, and the magnitude of costs resulting from, the exercise of market power.

Merger cases present a different issue. The benefits to be weighed against the potential exercise of market power are not the certain and substantial costs of regulation, but the often disputed cost savings that the utilities could achieve only by merging. The Justice Department has stated that it is appropriate to allow market-based pricing in some markets in which a merger would be regarded as anticompetitive.

The federal antitrust agencies have the authority to investigate and challenge electric utility mergers and have in fact issued complaints in the case of mergers among regulated natural gas pipeline companies. In the past, however, the antitrust agencies have

deferred to FERC to investigate the competitive effects of electric utility mergers. Yet if FERC fails to investigate competitive effects and analyzes market power issues incorrectly, the antitrust agencies may be forced to conduct their own investigations of electric utility mergers in order to fulfill their responsibilities to enforce the antitrust laws.

Mark W. Frankena and Bruce M. Owen wrote on this topic in Public Utilities Fortnightly, from which this article is drawn. Their book Electric Utility Mergers: Principles of Antitrust Analysis is forthcoming from Praeger. Frankena testified on behalf of Occidental Chemical on the Entergy/GSU merger.

REGULATION OF THE AUCTION MARKET FOR U.S. TREASURY SECURITIES: AN UPDATE

The auction process for U.S. Treasury securities came under scrutiny after Salomon admitted its role in auction irregularities in 1991, but has faded from the limelight since then. Events such as auction rule violations, failed reform legislation, and a flurry of rule changes suggested the presence of serious problems, but such was not the case. In essence, minor improvements were needed to a system that was adequately fulfilling the predominant goal for auction administration and regulation: to minimize the cost of funding the debt.

Underlying any market, including the market for U.S. Treasury securities, are contracts through which participants transfer rights and obligations. A market may be considered fair if the contract rights and obligations are certain, regardless of whether they are appropriate by other standards. Certainty-fairness is an appropriate objective for Treasury auction policy. It is necessary for minimizing the cost of debt funding because low-cost funding is defined over the long term. That is, it is not optimal for the government to fool investors, or for investment banks to fool customers, in a way that deters future participation.

Certainty-fairness can be improved by changing the auction process from a multi-price auction to a single price auction. The uncertainty associated with the potential for squeezes can also be addressed, either by direct government supply augmentation or by

facilitating market responses. Treasury has taken action in both of these areas, experimenting with single-price auctions, and committing to issue more securities in the case of an acute and protracted shortage. In addition, the antiquated order entry system has been updated, allowing dealers to submit their bids electronically and speeding the release of information following the auction.

Under a multi-price auction, investors pay what they bid, so it is costly to overbid and bidders must consider both their own reservation price and the expected bids of other participants. A single-price auction eliminates the cost to bidders of bidding their true (possibly higher) reservation price. In a single-price auction, each bidder pays the market clearing price so there is no penalty for bidding a price above what others are bidding and thus no benefit from knowing what others are bidding.

Switching to a single-price auction would eliminate any additional revenue to the Treasury from bids above the market clearing price. However, revenue will tend to increase from the increase in apparent demand due to more aggressive bidding by investors who are not worried about bidding too high. Economic theory does not tell us the magnitude of the two offsetting effects, but a one-year experiment conducted by the Treasury, which has now been extended to two years through the fall of 1994, will. Certainly

the extension of the experiment for two-year and five-year notes means that there have been no dire consequences so far.

Treasury has also committed to providing further securities in case of an acute and protracted shortage; it used its authority once in 1992 for a 10-year note auction, making the commitment credible. If a bidder or group of bidders is able to control a substantial majority of the auctioned securities, it can withhold the securities from the market, create an artificial shortage, and squeeze those traders with short positions. Treasury can address this problem by reopening the auction, selling more securities "on top" through the Open Market Desk of the Federal Reserve Bank in New York, precommitting to issue more of a specific security should its price rise above the market by a specified amount, or lending through the Open Market Desk.

The effect of government action following the

1991 Salomon trading irregularities has been salutary. Reforms are being considered or have been instituted that increase the certainty-fairness of the system. In general, however, the government securities market operates well and does not require further regulation. The size and breadth of the U.S. Treasury market and the sophistication of its participants make it unlikely that bidders can profit by treating their customers other than fairly and with integrity. Treasury need only focus on the primary goal for auction administration and regulation: to minimize the cost of funding the debt.

Senior Economist Dean Furbush has written on this issue for the Wall Street Journal. This article is an updated excerpt from his chapter in Modernizing U.S. Securities Regulations: Economic and Legal Perspectives.

COSTS AND BENEFITS OF PESTICIDE BAN

As part of its regulations to restrict the use of chemicals believed to contribute to the depletion of the stratospheric ozone layer, the Environmental Protection Agency (EPA) recently banned the production and use of methyl bromide, a widely used soil, commodity, and structural fumigant by 2001. Despite the affected parties' arguments that a ban would have a serious impact on tens of thousands of farmers, food processors, importers, and exporters, the agency did not attempt to quantify the costs or benefits of its proposal. Nor, prior to implementing the ban, did EPA conduct a study of the proposal's impact on small businesses, as required by statute. In essence, EPA made the proposal while turning a blind eye to costs that greatly exceed the benefits.

Methyl bromide is a gas used as a fumigant against a wide range of pests, and is the active ingredient in a number of registered pesticides. When used as a pre-planting soil fumigant, it reduces the need to apply other pesticides and fungicides during the growing season, and has dramatically increased yields (and lowered prices) for many consumer crops. Methyl bromide is also used to fumigate foods in storage or in transport, and is required by many countries as a quarantine treatment to control various pests on imported goods. Demand for methyl bromide has

been increasing in recent years as other fumigants have been withdrawn from the market because of concerns about toxicity or environmental hazards.

The cost of EPA's ban will take several forms. Without methyl bromide, farmers will substitute more costly, less effective fumigants, apply more pesticides and fungicides, and use more land for growing crops. This will inevitably lower yields and increase the price of consumer crops. Furthermore, because there are no good substitutes for methyl bromide as a quarantine treatment, prohibiting its use on imported goods will increase their costs and lower their quality. U.S. exporters will also suffer losses as some importing countries abroad refuse to accept U.S. goods.

The social cost of the ban can be quantified by estimating the demand for methyl bromide. Imputing a demand curve from available data on the net cost to consumers and producers of shifting to the next best alternative reveals that the value added of a pound of methyl bromide far exceeds its price. Its value for quarantine uses is over \$800 per pound, while its price is around \$1 per pound. The estimated social cost of a total ban on methyl bromide use in the United States by 2001 is \$8.8 billion per year.

The benefits attributable to banning methyl bromide are based on models that predict that, if it

SELECTED EI CASES IN 1993

Hospital Mergers: EI Principal Barry C. Harris worked with Jones Day Reavis & Pogue on behalf of the two hospitals in Manchester, N.H. in their successful merger. He also helped persuade the FTC to allow Columbia Hospital Corp. to acquire both Galen Health Care and HCA. These matters involved Vinson & Elkins, Howrey & Simon, and Proskauer Rose Goetz & Mendelsohn.

Lunkenheimer v. Tomkins: EI Principal Philip B. Nelson provided testimony on behalf of Tomkins in this lawsuit and counterclaim involving breach of contract, fraudulent inducement and other charges. Tomkins, which was represented by Wildman, Harrold, Allen & Dixon, defeated the \$64 million claim and won \$7 million in the counterclaim.

Software Mergers: EI Principal Bruce R. Snapp worked with Drinker, Biddle & Reath on behalf of Hewlett-Packard in its successful acquisition of automated design software maker EEsos. He also worked with Fenwick & West and Drinker, Biddle & Reath in a merger involving Symantec and Fifth Generation Systems, two firms that develop utility software for personal computers.

Bristol Steel v. Bethlehem Steel: EI Principal Joseph W. McAnneny testified on behalf of Bethlehem Steel regarding allegations of price discrimination by steel fabricator Bristol Steel & Iron Works. The jury found in favor of the defendant. Bethlehem's outside counsel was Woods Rogers & Hazelgrove.

Xerox Class Action Suit: EI Director of Financial Analysis Stephen E. Siwek and Senior Economist Jonathan L. Walker worked with Berry & Leftwich and McKool Smith of Dallas on behalf of end user and ISO plaintiffs in this antitrust class action case. Xerox recently agreed to a settlement involving \$225 million in coupons.

Drug Store Merger: EI Senior Economist Robert D. Stoner and Principal Barry C. Harris helped Thrifty Drug Stores acquire Payless Drug Stores in a deal to which the FTC consented after a small divestiture of stores. Thrifty was represented by Irell & Manella and Payless by Skadden, Arps, Slate, Meagher & Flom.

reaches the stratosphere, methyl bromide has the potential to contribute to the depletion of stratospheric ozone. Controlling emissions of ozone depleters yields benefits in the form of reduced ultraviolet radiation, which has been linked to non-melanoma skin cancers.

Although EPA did not publish an analysis of the benefits of its proposal to phase out methyl bromide, it has forecasted the benefits of reducing emissions of other ozone depleters (chlorinated fluorocarbons or CFCs). A review of EPA's approach in these other impact analyses reveals many uncertainties and questionable methods. For example, EPA assigns implausibly high values for avoiding the non-melanoma skin cancers, and uses unjustifiably low discount rates. EPA's model also values preventing future fatalities more than current ones, which, when combined with the low discount rate, implies benefits that are infinite in some scenarios.

The benefits of different phase-out scenarios can be estimated by using EPA data on marginal benefits per kilogram of CFC emission reduction, and adjusting for the difference in ozone depletion potential between CFCs and methyl bromide, as well as for the unrealistic assumptions in EPA's calculations. The annual benefits of a complete ban on methyl bromide are about \$19 million per year. If demand for methyl bromide is assumed to grow at 5 percent, the magnitude of these benefits would increase to \$29 million per year by 2001.

EPA failed to fulfill its obligation to conduct a benefit-cost analysis before proposing a regulation that would have far-reaching effects. The costs, as it turns out, are orders of magnitude larger than the benefits. By implementing the ban, EPA will impose costs in excess of benefits of nearly \$8.8 billion every year once the ban takes effect in 2001. These estimated costs will fall largely on consumers, who will pay higher prices for fresh fruits, vegetables, and grains. The costs do not include the health effects of diets that contain less of these nutritious foods, nor the environmental damage associated with increased infestations of pests that will not be effectively controlled, though these impacts are also likely to be great.

Susan E. Dudley, Director of Environmental Analysis, conducted a benefit-cost analysis of EPA's proposed phase out of methyl bromide. She has examined the impact of numerous regulations while at EI and previously as Deputy Chief of the Natural Resources Branch at the Office of Management and Budget.