Viewpoint

Yale Brozen

Making Crises, Not Energy

"THE PROBLEM [of declining U.S. productivity] demands more Federal action than any administration has ever proposed or pursued." In this editorial comment of December 19, 1979, the *New York Times* managed to be both absolutely right (about the gravity of the problem) and absolutely wrong (about the way to solve it). As I intend to demonstrate, the "action" that declining productivity "demands" is in fact no action at all—or, better still, the dismantlement of much of the mischief that "federal action" already has wrought.

Lee Loevinger has an idea that explains much about our dilemma and how we stumbled into it. Some time ago, drawing on his experience as a member of the Federal Communications Commission and as chief of the Antitrust Division at the Department of Justice, he formulated the Law of Irresistible Use. It says, "If a boy has a hammer, it proves something needs pounding. The political science analogue is that if there is a government agency, this proves something needs regulating."

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Now, in line with Loevinger's scientific search for an understanding of the world we live in, let me lay down a law of my own—one that may be a helpful guide to straight thinking about energy policy and may indeed be more generally applicable. Brozen's law (to give it a modest, scientific name) is simply this: "If you see a problem that seems to cry out for government regulation, look first for the existing regulation that is *causing* the problem—and *abolish* it."

To illustrate Brozen's law, suppose we begin by applying it to some steps President Carter has taken (and some he proposes to take) to "solve" the energy problem. Last fall, in order to turn around our increasing dependence on politically unreliable sources of energy, he set ceilings on petroleum imports for 1979 and 1980. The first question about this should be, What is the regulation that is causing increased dependence on overseas energy sources? The primary culprit, we quickly discover, is not one regulation but the whole complex set of regulations that governs the price of domestic crude.

These price regulations, in a virtuoso display worthy of the *Times*, manage both to increase the demand for imported oil *and* to subsidize its import. It works like this: We have some domestic crude on which the current price ceiling is about $7 a barrel. The demand for this $7 oil obviously far exceeds the supply, and some refiners (because of long-term contracts and like factors) can obtain more of this "cheap" crude than others. So, to correct the "inequity" created by one regulation, the government devised another regulation—one that both roughly equalizes crude oil costs for all refiners and biases these costs upward. Specifically, the refiner who imports a barrel of oil at the going weighted average cost (now about $29) is entitled to a cash payment from other refiners amounting to roughly the cost differential between imported oil and the $7 oil *times* the average proportion of "cheap" oil refined domestically. Currently this subsidy—which

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incidentally is slowly declining under the gradual decontrol of domestic crude oil prices—amounts to a little less than $5 a barrel. Because "equalized" crude acquisition costs of any size may be passed through to consumers, but capital expenditures to conserve crude cannot, refiners have no incentive to restrain imports. All we would have to do to give them that incentive would be to eliminate the subsidy and decontrol domestic crude *now*. Less regulation, in other words, would quickly solve the problem for which President Carter says we need more.

To reduce our dependence on oil imports another notch, the President also has proposed an $88 billion synthetic fuels program, to be financed by part of the proceeds from a tax on the production of domestic petroleum. This tax, now fixed by Congress to transfer some $227 billion from oil producers to the U.S. Treasury in the next decade, seems a most peculiar way to increase the output of domestic fuel. Synthetic fuels will cost in the range of $30 in). Synthetic fuels will cost in the range of $30 to $40 a barrel. The current "resource marginal cost" of adding output in the crude oil industry is only about $14 to $15 a barrel. President Carter proposes to tax, and so to discourage, the production of oil that would cost $15 to finance a program to produce oil at no less than $30 a barrel. Some trade-off. In effect, he wants government to use capital and manpower to produce one barrel of oil instead of *our* using them to produce at least two barrels!

How to Create Gas Lines

For another example of the effects of more regulation—rather than less or none at all—consider the gasoline shortage in California last spring. There was in fact a surplus of crude oil in California all during the period of that gasoline shortage. Yet gasoline ran short, which forced wholesalers—under the very same federal regulations that caused nationwide gas lines in 1973–74—to allocate the shortage "equally" among all retail outlets. That action inevitably made the situation worse. The allocations caused gasoline to be delivered to the wrong stations. Rural stations had a surplus, while metropolitan stations did not receive enough to supply the amounts demanded. Because metropolitan stations could sell their limited allotments in a few hours, they closed on weekends and parts of each day. Presto, the long lines—as drivers converged on stations in the few hours they were open and made more station stops to top off their tanks.

Now—invoking Brozen's law—the solution: Instead of regulating the amount of gasoline allowed to each station, the federal government should simply have ended its prohibition on shipping Alaskan oil to foreign ports. Alaskan producers would like nothing better than to swap their heavy, sulphurous crudes for light, "sweeter" crudes. U.S. refineries are equipped to get high gasoline yields from light crudes. If they have to run heavy crudes, their gasoline yields per barrel are much smaller, and their yields of heavy heating oil (used for power boilers) are larger. The Japanese, on the other hand, prefer high heating-oil yields and low gasoline yields because that fits their consumption pattern. They would gladly swap the light crudes they now import for the heavy Alaska crudes. That not only would enable U.S. refineries to produce more gasoline with their present equipment but also would save $1.50 a barrel in transportation cost. But our present regulations prevent the swap and force Alaskan crude to be shipped to California and other U.S. ports. Which is why there was a surplus of crude—the wrong kind—in California all during the gasoline shortage.

Furthermore, we could get higher gasoline yields from heavy crudes than we now do. But—you guessed it—there are regulations which prevent this too (and which, as a consequence, perpetuate the gasoline shortage). These regulations are intended to hold the price of gasoline down; but their net effect, in tandem with the allocation regulations, is a higher price.

It is the present price regulations that have prevented refineries from installing additional processing equipment to increase gasoline yields from the crude they run. Texaco, for example, by installing $100 million worth of additional equipment in its Port Arthur refinery, could increase its yield of lead-free gasoline by 80,000 barrels a day without running a single additional barrel of crude. The added equipment would enable it to upgrade heavy products such as number 6 heating oil, which is unusable in home furnaces. Atlantic Richfield, with a similar investment in its Philadelphia refinery, could increase its output of lead-free

gasoline by 40,000 barrels a day with no increase in the amount of crude run. But under the price regulations laid down by the Department of Energy, neither Texaco nor Arco would get a sufficient return to avoid losing money on the $100 million that each would have to invest to get these additional gasoline yields. The Department of Energy did propose eliminating wholesale ceiling prices on gasoline last year when refinery gasoline prices were well below the prevailing ceilings. But President Carter vetoed that proposal. So we now have higher prices for gasoline and less of it available than we would have had without ceilings.

Prices at the refinery level are not higher, but prices at the pump are much higher. Gasoline station markups have increased greatly as a consequence of the allocation system. Because stations are being allocated a limited amount of gasoline, there is no point in their competing for more business: they could not get more gasoline even if they succeeded in attracting more customers. So the same brand of gasoline from the same bulk distribution center sells for as much as $1.36 in a metropolitan area and for only 96¢ in a nearby rural area. Normally, the rural is a penny or two higher than the city price to cover the cost of hauling the gasoline to the area. However, when rural allocations are more than adequate, rural stations compete for business. When city station allocations are inadequate, they stop competing. The result is that rural stations that pay more for gasoline than metropolitan stations sell it for less. The markup in some city areas is now just over 16¢ a gallon, compared to a 6¢ average markup a year ago.

I could go on with a description of entitlement regulations and crude inventory allocation regulations, which are supposed to hold down prices but actually drive them up. But let me turn instead to another illustration of Brozen's law. One of the least expensive ways to get more oil for important uses is *conservation.* Unfortunately, in Washington these days, conservation means ordering people to keep their thermostats above 78° when cooling, below 65° when heating, and urging them to leave their cars at home at least one day a week. The Carter administration thinks conservation means sacrifice—doing without. What it really means, of course, is *putting* all our resources to their most productive *uses.*

We are now getting ready to waste an important resource by putting it to trivial uses and leaving more productive uses unfilled. That scarce resource is capital. Federal investment in expensive synthetic fuels, soon to be mandated by law, will not increase the total amount of investment capital available to the economy. It will simply divert capital from other projects, including projects to develop cheaper conventional fuels and fuel-saving technologies. One of these is cogeneration—the joint production of electricity and steam for heating and industrial processes. By some estimates, cogeneration could save oil at a cost of about $10 per barrel saved. That would be a far more productive use for the capital. That would be conservation. It would increase the supply of oil for other uses by reducing the amount required for industrial heating and process uses. By cogeneration, perhaps as much as *10 percent of the energy required for industrial use could be saved.*

. . . Who Needs Enemies?

Cogeneration itself (or the lack of it) provides another example of Brozen's law. Electric utilities used to engage in a fair amount of cogeneration, supplying leftover steam from their central stations to homes and factories in the vicinity. The steam, originally heated to over 2,000 degrees and used to drive turbines, emerged from the turbines at around 400 degrees and was then piped to neighboring establishments for heating and process use. The system was simple, effective, and too-good-to-last: cogeneration was put under state regulation. The controls were imposed by different jurisdictions at different times in various specific forms; but, as an unvarying general principle, the state regulatory authorities dealt with the pricing of the cogenerated steam in ways that made it uneconomical for utilities to continue in the distribution business—the more so because the costs of dealing with regulation itself priced the steam out of competition with increasingly cheap energy from other sources.

Manufacturing plants might still set up their own power stations and cogenerate electricity and steam, with large savings in energy. To operate economically, however, they must be able to wholesale their surplus electricity to the local utility or to other users. In most states,

it is illegal to do that without a franchise from the state regulatory authorities, and those authorities are reluctant to grant the franchises. In the early seventies, for example, Dow Chemical made an agreement with Consumers Power Co. (a Michigan utility) to get around this obstacle by having Consumers Power own and operate an electric power plant to be built across the street from Dow Chemical plants, with Dow providing part of the financing. Construction was started, but then Consumers Power ran into financial difficulties and construction stopped with the power station half finished. Dow offered to take over the plant and finish it, but the Michigan Utility Commission refused permission. Consumers Power now hopes to complete the plant perhaps by 1984, but that might be too late and surely is too indefinite for Dow.

The fundamental problem, indeed, goes well beyond the effect of one state's regulations on cogeneration. Brozen's law comes into general application: there is simply no need to control entry into the wholesale power business or to regulate the production and sale of power (cogenerated or otherwise) at wholesale. Electric utilities ought to be free to choose among competitive wholesalers—and, if state franchise requirements were repealed, there would be a competitive market in the wholesaling of power.

The path to lower prices for electricity ... is repeal of existing electric power regulations....

Nor, as a matter of fact, is there any need to regulate the *retail* sale of electricity. Quite the contrary. Two notable articles published a decade apart in the *Journal of Law and Economics*—Harold Demsetz's "Why Regulate Utilities?" (1968) on natural monopoly pricing and Gregg Jarrell's "The Demand for State Regulation of the Electric Utility Industry" (1978) on the history of rate regulation—show that regulation brings about higher prices for electricity than would prevail in the absence of regulation. The path to lower prices for electricity and to less energy consumption in industry is not more regulation: instead, it is repeal of existing electric power regulations, most of them imposed by the states, that hold back cogeneration and prevent more efficient suppliers from competing with and displacing the less efficient.

In recognition of the problems of getting a cogeneration program under way, Congress designed section 201 of the Public Utilities Regulatory Policies Act of 1978 nominally to remove artificial barriers to cogeneration. It provides for special and sympathetic treatment to "qualified" facilities. So far so good. But not good enough for the Federal Energy Regulatory Commission (FERC). Under FERC's final implementing regulations issued in March, if a facility is to qualify as a "small power production facility," more than half of its energy input must be biomass, waste, or renewable resources (including water from existing and some new hydro plants) and no more than a quarter may be fossil fuel (oil, natural gas, and coal).

And that is not the end of it. Section 292.207(d)(1) of the regulations allows FERC to revoke qualifying status for any certified facility that undergoes changes that put it out of compliance. Such a provision is undoubtedly necessary, once the initial (misguided) decision to regulate has been made. But even though FERC tries to soften its impact by providing for declaratory rulings as to the effects of proposed changes upon qualification (section 292.207(d)(2), and even though the proposed regulations contain a general provision for waiver "upon a showing that the facility will produce significant energy savings" (section 292.205(d)), the discouraging conclusion of Irwin Stelzer's analysis of the proposed regulations (before the American Bar Association, August 14, 1979) remains correct: "To the ordinary risks of technical change, add revocation of qualifying status—or some probably lengthy delay to hold a hearing to show that the change should not result in such loss. With FERC for a friend, cogenerators don't need many enemies!"

That is one way to "conserve" energy and make efficient use of resources. Another is to apply Brozen's law—and turn cogenerators (among other power producers, small and large) loose. The outcome is as certain as . . . well, as Brozen's law. Or, to put the matter somewhat more modestly, as certain as rigorous cost/benefit analysis and rationality and plain good sense ever can make it. ■