Book Reviews

A Blueprint for Technocracy

The New Industrial State. JOHN KENNETH GALBRAITH. Houghton Mifflin, Boston, 1967. 443 pp. $6.95.

In *The New Industrial State*, Galbraith once again examines the reality of corporate giantism and corporate power, and outlines the implications for public policy. He finds that the giant corporation has achieved such dominance of American industry that it can control its environment and immunize itself from the discipline of all exogenous control mechanisms—especially the competitive market. Through separation of ownership from management, it has emancipated itself from the control of stockholders. By reinvestment of profits (internal financing), it has eliminated the influence of the financier and the capital market. By brainwashing its clientele, it has insulated itself from consumer sovereignty. By possession of market power, it has come to dominate both suppliers and customers. By judicious identification with and manipulation of the state, it has achieved autonomy. Whatever it cannot do for itself to assure survival and growth, a compliant government does on its behalf—assuring the maintenance of full employment, eliminating the risk of and subsidizing the investment in research and development, and assuring the supply of scientific and technical skills required by the modern technostructure. In return for this privileged autonomy, the industrial giant performs society's planning function. And this, according to Galbraith, is not only inevitable (because technological imperatives dictate it); it is also good. To be sure, Galbraith recognizes that the industrial state poses a grave problem for the esthetic and other non-economic values of our civilization. But this is simply a matter for future negotiation between our intellectuals and the technostructure. So far as the economic system is concerned, the only remaining task, it seems, is to recognize the trend, to accept it as inexorable necessity, and, presumably, not to stand in its way.

Here is a blueprint for technocracy, private socialism, and the corporate state. The keystone of the new power structure is the giant corporation, freed from all traditional checks and balances, and subject only to the countervailing power of the intellectual in politics. Happily, this blueprint need not cause undue alarm: first, because Galbraith's analysis rests on an empirically unsubstantiated premise; and second, because even if this analysis were correct, there would be more attractive public-policy alternatives than Galbraith suggests.

Galbraith's contention that corporate giantism dominates American industry requires no adumbration. On that there is consensus. But Galbraith fails to prove that this dominance is the inevitable response to technological imperatives and hence beyond our control. Specifically, he offers little evidence to demonstrate that Brobdingnagian size is the prerequisite for and the guarantor of (i) operational efficiency, (ii) invention, innovation, and technological progress, and (iii) effective planning in the public interest.

In the mass-production industries firms must undoubtedly be large, but do they need to assume the dinosaur proportions of some present-day giants? The unit of technological efficiency is the plant, not the firm. This means that there are undisputed advantages to large-scale integrated operations at a single steel plant, for example, but there is little technological justification for combining these functionally separate plants into a single administrative giant. U.S. Steel is nothing more than several Inland Steels strewn about the country, and no one has yet suggested that Inland is not big enough to be efficient. A firm producing such divergent goods as rubber boots, chain saws, and chicken feed may be seeking conglomerate size and power; it is certainly not responding to technological necessity. In short, one can favor technological bigness and oppose administrative bigness without inconsistency.

Two major empirical studies document this generalization. The first, by John M. Blair (*1*), indicates a significant divergence between plant and company concentration in major industries dominated by oligopoly. It shows, moreover, that between 1947 and 1958 there was a general tendency for plant concentration to decline, which means that in many industries technology may actually militate toward optimal efficiency in plants of "smaller" size. The second study, by Joe S. Bain (*2*), presents engineering estimates of scale economies and capital requirements in 20 industries of above-average concentration. Bain finds that "concentration by firms is in every case but one greater than required by single-plant economies, and in more than half of the cases very substantially greater." In less precise language, many multi-plant industrial giants have gone beyond the size that is optimal for efficiency. Galbraith acknowledges the validity of Bain's findings, but dismisses them by saying, "The size of General Motors is in the service not of monopoly or the economics of scale but of planning. And for this planning—control of supply, control of demand, provision of capital, minimization of risk—there is no clear upper limit to the desirable size. It could be that the bigger the better" (p. 76). If size is to be justified, then it must be justified on grounds other than efficiency.

But neither is there a strict correlation between giantism and progressiveness. In a study of the 60 most important inventions of recent years, it was found that more than half came from independent inventors, less than half from corporate research, and even less from the research done by large concerns (*3*). While some highly concentrated industries spend a large share of their income on research, others do not; within the same industry, some small firms spend as high a percentage as their larger rivals (*4*). Roughly two-thirds of the research done in the United States is financed by the federal government, and in many cases the research contractor gets the patent rights on inventions paid for with public funds!

The U.S. steel industry, which ranks among the largest, most basic, and

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most concentrated of American industries, affords a dramatic case in point. It spends only 0.7 percent of its revenues on research, and in technological progressiveness the giants that dominate this industry lag behind their smaller domestic as well as their smaller foreign competitors. Thus, the basic oxygen furnace—considered by steel men the "only major breakthrough at the ingot level since before the turn of the century"—was invented in 1950 by a miniscule Austrian firm which was less than one-third the size of a single plant of the U.S. Steel Corporation. The innovation was introduced in the United States in 1954 by McLouth, which at the time had about 1 percent of domestic steel capacity—to be followed some ten years later by the steel giants: U.S. Steel in December 1963, Bethlehem in 1964, and Republic in 1965. Despite the fact, that this revolutionary invention involved an average operating-cost saving of $5 per ton and an investment-cost saving of $20 per ton of installed capacity, the steel giants during the 1950's "bought 40 million tons of the wrong capacity—the open hearth furnace," which was obsolete almost the moment it was put in place (*5*). Only after they were subjected to actual and threatened competition from domestic and foreign steelmakers in the 1960's did the steel giants decide to accommodate themselves to the oxygen revolution (*6*).

Modern technology, says Galbraith, makes planning essential, and the giant corporation is its chosen instrument. This planning, in turn, requires the corporation to eliminate risk and uncertainty, to create for itself an environment of stability and security, and to free itself from all outside interference with its planning function. It must have enough size and power not only to produce a "mauve and cerise, air-conditioned, power-steered, and power-braked automobile" (*7*)—unsafe at any speed—but also to brainwash customers into buying it, and at prices the technostructure deems remunerative.

Aside from the unproved premise (technological necessity) on which this argument rests, it raises crucial questions of responsibility and accountability. By what standards do the industrial giants plan, and is there an automatic convergence between private and public advantage? What are the safeguards—other than the intellectual in politics—against arbitrary abuse of power, capricious or faulty decision-making? Must society legitimize a self-sustaining, self-serving, self-justifying, and self-perpetuating industrial oligarchy as the price for industrial efficiency and progress?

This high price need not and should not be paid. The competitive market is a far more efficacious instrument for serving society—and far more viable—than Galbraith would have us believe. Let me illustrate: (i) In the electric power industry, a network of local monopolies, under government regulation and protection, was long addicted to the belief that the demand for electric power was inelastic—that rates had little to do with the quantity of electricity used. It was not industrial planning, carried on by private monopolists under public supervision, but the yardstick competition of TVA that demonstrated the financial feasibility of aggressive rate reductions. (ii) In the airline oligopoly, also operating under the umbrella of government protectionism, the dominant firms long suffered from the same addiction. They refused to institute coach service on the grounds that it would eliminate first-class service and (through a reduction in the rate structure) bring financial ruin to the industry. Again it was the force and discipline of competition—from the small, nonscheduled carriers—that proved the giants and their overprotective public regulators wrong. It was the pioneering and competition of the non-skeds that "shattered the concept of the fixed, limited market for civil aviation. As a result, the question is no longer what portion of a fixed pie any company will get, but rather how much the entire pie can grow" (*8*). (iii) In the steel industry, after World War II, oligopoly planning resulted in truly shabby performance. There was an almost unbroken climb in steel prices, in good times and bad, in the face of rising or falling demand, increasing or declining unit costs. Prices rose even when only 50 percent of the industry's capacity was utilized. Technological change was resisted, and obsolete capacity was installed. Domestic markets were eroded by substitute materials and burgeoning imports. Steel's export-import balance deteriorated both in absolute and relative terms; whereas the industry once exported about five times as much as it imported, the ratio today is almost exactly reversed, and steel exports are confined almost exclusively to AID-financed sales guaranteed by "Buy American" provisos. We may be confident that if this deplorable performance is to be improved, it will be because of the disciplining force of domestic and foreign competition, and not through additional planning or an escalation of giant size.

Industrial giantism in America is not the product of spontaneous generation, natural selection, or technological inevitability. It is often the end-result of unwise, man-made, discriminatory, privilege-creating governmental action. Defense contracts, R & D support, patent policy, tax privileges, stockpiling arrangements, tariffs, subsidies, and the like have far from a neutral effect on our industrial structure. In controlling these variables, the policy maker has greater freedom and flexibility than is commonly supposed; the potential for promoting competition and dispersing industrial power is both real and practicable.

An integrated national policy of promoting competition—and this means more than mere enforcement of the antitrust laws—is not only feasible but desirable. No economy can function without built-in checks and balances which tend to break down the bureaucratic preference for letting well enough alone and the conservative bias inherent in any organization devoid of competition. The dictates of the competitive market, the pressure from imports or substitutes, the discipline of yardstick competition—it is these forces that protect the people from exploitation and deprivation. It is these forces that the policy-maker must try to reinforce where they exist and to build into the economic system where they are lacking or moribund.

Galbraith is an eminently civilized and literate political economist. He focuses attention on real problems and vital issues. His questions are invariably to the point. But his answers are sometimes wrong.

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