

## Economists' Changing Perceptions of Government\*

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*Governments intervene in capitalist market economies to alter the answers the market would yield for the goods and services to be provided, the allocation of resources to produce them, and the associated distribution of personal income across households.*

*However, the opinions of economists, other social scientists, and philosophers have changed regarding the case for government intervention, as they have become more skeptical and cautious about the justification for government intervention and its probable benefits and costs.*

*In this chapter, Krueger explains the earlier conception of the government as a "benevolent, costless social guardian." Then she examines recent challenges to this view, arising from the economics of information, analyses of collective action, the theory of rent-seeking, and the recognition of "bureaucratic capture." Thus, to decide what government intervention is appropriate, it is necessary to assess the magnitude of "market failure" and its costs and weigh them against "government failure" and its costs.*

### INTRODUCTION

A central question for economists has always been what the roles of governments and markets in the economy are, and what they should be. Until Adam Smith analyzed the functioning of markets, and the role of the invisible hand in guiding the economy, there was no separate discipline of economics. It was Smith's profound insight that when individuals respond in their own self-inter-

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est to the incentives with which they are confronted, the outcome may well enhance the social good. With that central proposition in place, there was scope for a separate study of markets and their functioning, and for the separate discipline of economics. To be sure, Smith recognized the need for a strong government, providing law and order, a framework for contracts, and the necessary infrastructure of transport, communications, and education.

As economic thought evolved, economists' and political philosophers' thinking about governments and markets altered subtly but importantly. Whereas Smith focused on the invisible hand and its benefits, a rising strain of thought sought to identify circumstances in which the market would not function perfectly. In these instances, it was thought, there was a case for government intervention.

In a sense, the case was automatic if it could be shown that markets were not perfect. Underlying this approach was a set of assumptions, usually implicit, about the nature of government. Implicitly, it was assumed that there could be no such thing as government failure. The view of a government was that it would and could function as a "benevolent social guardian" in the Benthamite<sup>2</sup> tradition. Such a government, it was believed, could costlessly and unerringly enter the market and function, just as could a private entrepreneur.

Given the premise that a government could perfectly and costlessly execute its objectives, it naturally followed that economists as technocrats could provide sensible welfare-maximizing rules, such as that public utilities should price according to marginal cost, or that in the presence of an externality, government intervention with taxes and subsidies can improve welfare, contrasted with laissez faire, and that these rules would be readily implemented in ways superior to market outcomes.

By the late 1940s, two additional lines of thought also led to the view that governments could and should play a major role in economic activity. The first was the Keynesian revolution, which arose out of the Great Depression, and suggested a strong role for government in the macroeconomic management of the economy. The second was the concern of all for income distribution: there was and is nothing in the theory of competitive markets that suggests that markets will generate a socially desirable income distribution.

Over the past several decades, economic thought has evolved further, and a new view of government, and its role in the economy, is emerging. In that view, behavior within the public sector can be analyzed in ways similar to, but not identical with, that in the private sector. The self-interest of bureaucrats and the incentives with which they are confronted affect behavior just as the self-interest of managers and workers affects firm behavior. Moreover, just as organizational factors within the firm affect its performance, so organizational

<sup>2</sup> Editor's note: Jeremy Bentham (1748–1832) was a British philosopher, economist, and sociologist.

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features of government affect its performance. Additionally, however, collective action may lead to circumstances where behavior may differ profoundly from that encountered when analysis focuses upon individual optimizing agents.

The emerging view of governments and their interaction with markets is much more complex than earlier views. In particular, government behavior is now seen to resemble more closely the outcome of a complicated interaction of a number of groups and interests, rather than the result of purposive behavior of a maximizing benevolent guardian. While it is still widely recognized that there are "market failures" in a variety of circumstances, the change is that government failures must also be taken into account before policy recommendations are made.

I plan to set forth the considerations that have led to this emerging new, more complex, view of government as an economic actor and ask how that affects the policy prescriptions that were based on the implicit assumption that governments behave as benevolent guardians. As a starting point, it is useful to describe the attitudes of economists—perhaps caricature would be a better word—as they were expressed in the late 1940s and early 1950s. Thereafter, I will focus on those strands of thought and realizations that have altered the understanding of economic policy formulation and execution. Finally, the special characteristics of decision making within the public sector are considered, and the implications for economists' roles as policy analysts are considered.

There are three broad areas of governmental economic policy: those pertaining to macroeconomic issues, such as monetary and fiscal policy; those affecting microeconomic allocation of resources, such as public utility regulation, labor legislation, tariff and trade policy, and industry-specific policies; and those designed to influence income distribution. Changes in thinking have been significant in all three areas. However, in order to focus the discussion, I shall consider only government policies pertaining to microeconomic matters. It is in this domain that many of the issues prompting reconsideration of earlier thought have first arisen. Although I shall refer to the theory of economic policy and experience in a number of microeconomic areas, I shall illustrate extensively with the "infant industry rationale" for protection, both in theory and in practice.

### **GOVERNMENT AS A BENEVOLENT SOCIAL GUARDIAN**

Once Adam Smith recognized that the invisible hand could allocate resources in socially desirable ways, economists' attention quickly turned to analyzing the conditions under which "market failures" might occur. Smith himself had pointed out several such circumstances. He noted the businessmen's tendency to collude, and the desirability of prevention of monopoly and collusion.

As the discipline of economics developed, a number of contributions led to increased emphasis on government's role. In circumstances where there are

industries in which the costs of providing service decrease as the number of units of service provided increase for each firm, the market may not be large enough to permit perfect competition. This was thought to be particularly a problem in public utilities, including electricity, telephones, railroads, and waterworks. When this decreasing cost continued over a sufficiently wide range of output, it was recognized that there would emerge a conflict: on one hand, if there were a sufficiently large number of firms so that there could be competition within the industry, then costs would be high. If, on the other hand, a monopoly were permitted, it would charge too high a price, and provide too little of its output for social welfare maximization, or it would either have to be run by government or be regulated by government. Likewise, in the presence of negative or positive externalities—instances where the presence of one productive activity raises or lowers the costs of other activities or otherwise harms or benefits persons other than those directly engaged in it—private competition would clearly result in a level of production in the activities generating it that was either too low (in circumstances where others benefited from the productive process without taking part in it) or too high (when others are harmed by the process, such as in the case of environmental pollution).

Yet another line of thought focused upon uncertainties, and the ways in which they might affect unfettered private decision making. Indeed, in the literature on economic development for developing countries in the 1950s, it was widely thought that uncertainties would, for a number of reasons, discourage private individuals from undertaking investments and thus result in underinvestment. The recommended outcome was for governments themselves to establish new firms and industries.

These considerations, and others, led to an analysis of what the differences, if any, might be between government ownership of the means of production and private ownership. By the early 1940s, it had been shown that if one gave decision makers in the public sector the right rules, it could make no difference whether economic activities were undertaken in the private or the public sector.<sup>3</sup>

The "infant industry" argument was applied in this spirit. Alexander Hamilton and Friedrich List<sup>4</sup> had been the first to note that there might be "infant" industries in countries whose overall economic development lagged behind that of the frontrunners. They believed that, in these circumstances, temporary protection might be warranted to permit an "infant industry," or set of industries, a period in which to catch up. This conjecture withstood close scrutiny. The theoretical proposition is straightforward: if there are externalities that

<sup>3</sup> This was the central thesis of a very influential book, Oskar Lange and Fred M. Taylor, *On the Economic Theory of Socialism*, ed. Benjamin E. Lippincott (Minneapolis: University of Minnesota Press, 1938).

<sup>4</sup> Editor's note: Friedrich List (1789–1846) was a German economist.

cannot be captured by the original investor in the industry, and if there are dynamic factors that will lead to reduced costs over time, and the later competitiveness of the industry will be sufficient so that profits are adequate to cover the initial losses entailed in starting the industry, temporary protection of that infant may be warranted.

The proposition is theoretically valid. For present purposes, it should be noted that the criterion is quantitative: future gains must be estimated and must compensate for initial losses. It is also a criterion which requires knowledge of the future. I defer, however, to later insights as to the role of government which have emerged, as country after country provided protection on infant industry grounds and found the outcome to be rather different than theory indicated.

By the 1950s, then, economists were accustomed to thinking about markets in the following way. One first established the conditions under which a perfectly competitive market would yield an outcome that could not be improved upon for everyone. These conditions included the absence of externalities and increasing returns to scale; the absence of dynamic effects, and the existence of markets in which uncertainty could be eliminated for individual decision makers. The presence of any of these "market failures" was regarded as constituting a case for government intervention. Even in the absence of a market failure, it was thought that production within the public sector was little different than that in the private sector, and that it was largely a matter of indifference—even when conditions for well-functioning competitive markets were present—whether production took place in the public or in the private sector.<sup>5</sup>

In developed countries, this thinking provided the underlying intellectual rationale for public sector enterprises, for anti-monopoly laws, for regulation of transportation and utilities or their inclusion within the public sector, for taxes and subsidies to individual industries, and for a variety of other interventions. In the developing countries, where many governments' stated objectives included rapid economic growth, the domain of intervention went further still. Not only were large segments of economic activity reserved for the government, but in addition, foreign exchange and trade restrictions, requirements that investments be licensed, credit rationing, and a variety of other measures circumscribed private economic activity—rationalized largely by the infant industry argument and the argument that there was "market failure."

It has been experience with these measures in both developed and developing countries that has called into question the entire view of government

<sup>5</sup> For example, Tinbergen recently concluded that: "As an outcome of many discussions . . . many European economists and politicians have concluded that the type of ownership of the means of production is much less important for an enterprise's efficiency than the quality of its management . . . Efficiency considerations need not be a stumbling block if public enterprise is chosen as a means for furthering a country's development." See Jan Tinbergen, "Development Cooperation as a Learning Process," in *Pioneers in Development*, ed. Gerald M. Meier and Dudley Seers (New York: Oxford University Press, 1984), pp. 113-31 (the quotation is from p. 326).

underlying the interventionist case. It is to that set of issues that attention now turns.

### CHALLENGES TO THE BENEVOLENT, COSTLESS SOCIAL GUARDIAN VIEW

It remains recognized that markets may fail. The change is that it is now recognized that there may also be government failure. Both theoretical developments and experience have led many to question whether government activities are undertaken costlessly and selflessly by public servants who can omnisciently determine exactly what constitutes a socially optimal set of techniques and volumes of production of various goods and services. Interestingly, these challenges have arisen apparently fairly independently in a number of fields of economic inquiry, such as industrial organization and international trade. They have come from two directions: from theoretical developments in the theory of markets and from experience.

It is useful first to review the theoretical developments. An early challenge, which has received a great deal of attention in recent years, has been from the economics of information. Another major set of considerations was raised from the analysis of the economics of regulation in developed countries. In yet another branch of economics, questions were raised by many who were concerned with the collective action aspects of government activity. Yet another set of considerations concerned the likelihood of rent-seeking, and special interest groups, that would affect decision making. Related to all these was the recognition that there might be "bureaucratic capture" of activities, and that there might be coalitions of various public groups that governed decision-making processes. Finally, experience—especially in developing countries—with efforts by governments to operate or control individual economic activities has led to an increased appreciation of the importance of markets as mechanisms for competitive pressures, entry, and exit in ways which are far more difficult in the public sector.

#### Economics of Information

Smith's original insight into the invisible hand was based in large part upon the premise that "every individual can, . . . in his local situation, judge much better than any statesman or lawgiver. . . ." <sup>6</sup> Others, including, most notably, Hayek,<sup>7</sup> took up the argument and insisted that the wealth of particular, detailed information regarding technologies, products, and markets, was perhaps

<sup>6</sup> Adam Smith, *The Wealth of Nations* (Toronto: Modern Library, 1937), p. 423. (Originally published 1776-78.)

<sup>7</sup> Editor's note: See, for example, Friedrich A. Hayek, "The Use of Knowledge in Society," *American Economic Review* 35, no. 4 (September 1945), pp. 519-30.

the most important rationale for permitting private markets, rather than government agencies, to decide on the technique of production and the allocation of resources.

As economic growth has proceeded, it has in large part been a process of more and more specialization, that has been characterized by some as a process in which individuals are "knowing more and more about less and less." Although Smith anticipated this, with his discussion of increasing specialization of activities within the pin factory, division of labor has in fact probably proceeded further in terms of skill acquisition than it has in terms of different physical tasks.<sup>8</sup> As that has happened, and the importance of specialized knowledge of particular activities has increasingly been recognized, doubt has been cast upon the ability of economic planners to decide upon how resources should be allocated within and between activities. Indeed, it is the specificity of knowledge required for understanding various lines of production that lies at the basis of some of the phenomena discussed below.

The information requirements of modern economic activity themselves constitute an argument in favor of finding mechanisms that are "incentive-compatible." If incentives are not consistent with societally acceptable goals, the likelihood grows with the complexity of economic activity that there will be high costs for central direction of efforts.<sup>9</sup> As I shall argue below, in application of the infant industry argument, one difficulty was that protection was to be based on forecasts of future performance of individual firms and industries. Since government officials could not know what performance would be, and since the individuals seeking protection paid little or no penalty if their forecasts were optimistic, it should not be surprising that all industries rapidly acquired "infant" status!

### Economics of Regulation

Independently of the analysis of information, a group of economists concerned with industrial organization came to question some aspects of regulation. Earlier economists had tended to assume that when a natural monopoly, such as water or electricity, existed, regulation by governmental bodies could prevent

<sup>8</sup> Sherwin Rosen, "The Economics of Superstars," *American Economic Review* 71, no. 5 (December 1981), pp. 845-58.

<sup>9</sup> A major literature has sprung up in economics analyzing circumstances in which various decision-making mechanisms are influenced by "asymmetric information." Such informational asymmetries can flaw the functioning of private markets as well as of governments. Asymmetric information exists whenever one party to a transaction has information not possessed by the other and has an incentive not to reveal it. In insurance, for example, it is likely that high-risk individuals will seek insurance more than low-risk individuals, thereby raising insurance premiums and driving away low-risk persons. For a survey of these issues, see Joseph E. Stiglitz, "Information and Economic Analysis—A Perspective," *Economic Journal* 95, Supplement (1985), pp. 21-41.

any tendency for the monopoly to capture monopoly profits and to restrict output. In that spirit, there had existed a large number of regulatory commissions in America from at least the turn of the century.

By the early 1970s, however, important questions were raised about the theory of the regulatory process. This started when George Stigler<sup>10</sup> articulated the view that perhaps the regulators were "captured" by the process of regulation. According to this analysis, people who understand a particular line of economic activity have two choices of employer: they can work in the industry itself, or they can work in the regulatory agency. For a wide variety of reasons, including both the sociological proposition that these people are likely to know each other, and the self-interest argument that those currently regulating may later need jobs and be employable only in the firms they are now regulating, "capture" may take place. An agency that starts out to govern a particular economic activity may, thus, eventually end up serving the interests of the industry.<sup>11</sup>

The truth of the capture theory is frequently revealed when deregulation is proposed: it is, more often than not, those in the regulated industry themselves who are the loudest in their protests against deregulation! In the case of industries accorded infant industry protection in developing countries, proposals (often 20 and 30 years later) to reduce the level of protection have led to strong protests.

### Collective Action

At about the same time that George Stigler was questioning the extent to which regulation served the interests of the public, as contrasted with those of the regulated, Mancur Olson<sup>12</sup> was analyzing the logic of public policy decisions, and especially the role of special and general interests in the decision-making process.

Olson pointed out that, when large numbers of persons each have a small amount to gain by a particular action, while a few persons have a lot to lose, the losers will be likely to find it in their self-interest to organize in opposition to the measure, while the potential gainers may not find it in their interest. There are a number of reasons for this proposition, but the basic one is that when there are large groups of gainers or losers, any one individual is in the position of a "free rider"; whether he joins the group or not will not significantly affect the group's

<sup>10</sup> George Stigler, "The Theory of Economic Regulation," *Bell Journal of Economics and Management Science* 2, no. 1 (Spring 1971), pp. 3-21.

<sup>11</sup> For a recent survey, see David Baron, "Design of Regulatory Mechanisms and Institutions," in *Handbook of Industrial Organization*, ed. Richard Schmalensee and Robert Willig (Amsterdam: North-Holland Publishing Company, 1989), vol. 2, pp. 1349-1447.

<sup>12</sup> Mancur Olson, *The Logic of Collective Action: Public Goods and the Theory of Groups* (Cambridge, Mass.: Harvard University Press, 1965).

strength, and thus not significantly affect the outcome. Since most people in the large group are in a similar situation, the likelihood that they will organize effectively is smaller.

Taking the Olson logic to its conclusion, lobbies representing small particular interests are likely to have disproportionately large representation and effects on decision making in governments, while organizations representing the interests of large groups (consumers, the elderly) are likely to be underrepresented. For economic policy, an important implication is that producers' associations are likely to be especially powerful. If one then combines that proposition with the benevolent guardian theory of government, a contradiction is apparent. Insofar as decisions are influenced, and they surely are, by pressure groups, it is manifestly unrealistic to assume that decisions regarding regulation, taxation, protection, and so on will be made in a cool-headed technocratic environment where the social welfare is the paramount and only consideration. Instead, arguments made for regulation based on infant industries, externalities, and monopolies may in fact obscure the true motives and potential beneficiaries of the measures proposed.

### Rent-Seeking<sup>13</sup>

Olson's logic of collective action originated from consideration of the roles of special interests and lobbies in economic decision making in industrial countries, primarily the United States. In the context of developing countries, however, the economic role of the state had been vastly expanded by the late 1960s. With it, disillusionment arose on grounds additional to those discussed above.<sup>14</sup>

One of the most important of these was the proposition that many forms of regulation create opportunities—sometimes legal, sometimes illegal—for large private profit. When they do so, substantial resources can be wasted in seeking those profits.

An example may illustrate. In India, it was stated policy that licenses to import scarce intermediate goods and raw materials—which were highly valuable because of the overall shortage of foreign exchange—would be allocated to individual firms in infant industries in proportion to the individual firms' share of capacity in their particular industries. Not surprisingly, many firms

<sup>13</sup> Editor's note: Rent-seeking involves the use of real resources in an attempt to appropriate a surplus in the form of a rent.

<sup>14</sup> See Jagdish Bhagwati and T. N. Srinivasan, *India* (Foreign Trade Regimes and Economic Development Series; New York: National Bureau of Economic Research, 1975), for an articulation of the proposition that Indian economic intervention had often had consequences opposite to those intended. That influential work had followed upon the earlier volume by Jagdish Bhagwati and Padma Desai, *India: Planning for Industrialization: Industrialization and Trade Policies since 1951* (London: Oxford University Press, 1970), in making the case that there was a wide gap between theory—on which Indian intervention had been based—and practice.

were discovered to be investing even when they, and their competitors, already had substantial excess capacity. This was because any firm that failed to do so would lose market share if it did not follow the others. Obviously, such investment was socially wasteful as long as there was considerable excess capacity already existing, but it was privately profitable, and thus took place whenever the authorities could not find other policy instruments with which to attempt to control it.

Rent-seeking can take a wide variety of forms. It can consist of outright bribery, or smuggling, or of queueing in lines for commodities which are in short supply. When payoffs to civil servants are large, it can take the form of waiting for a long period of time for a job to open up, and of excess educational qualifications. It can also consist of a variety of merchants, each operating with substantial excess capacity, as the profits they do make per unit on their very small volume of imported goods compensate for the very small volume of their business. Workers may leave the countryside to seek higher-paying employment in the cities, only to be idle for months while attempting to obtain a job in an industry subject to minimum-wage legislation.

The phenomenon of rent-seeking is not confined to developing countries, although the pervasiveness of intervention to encourage industrialization has perhaps made it more visible there. To cite but one example in the context of developed countries, Averch and Johnson<sup>15</sup> showed that public utility firms which are regulated as to the rate of return they may realize on capital will have an incentive to overinvest in physical capital in order to earn higher returns, and in fact do so.

Estimates of the magnitudes of economic costs of rent-seeking have suggested that they may be 10 or more percent of GNP in some developing countries.<sup>16</sup> The magnitudes are large enough so that the likelihood and probable magnitude of rent-seeking behavior are a major consideration that must be weighed before a decision for intervention is made. The literature raises some interesting questions, as yet unanswered, as to forms of intervention less and more likely to encourage rent-seeking behavior. Until there are more satisfactory answers, however, an important question that must be addressed in the design of microeconomic policy interventions is the likely magnitude of rent-seeking that will be induced. From whatever probable social benefits are expected to result from intervention must be subtracted the likely costs of rent-seeking that may be entailed.

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<sup>15</sup> Harvey Averch and Leland L. Johnson, "Behavior of the Firm under Regulatory Constraint," *American Economic Review* 52, no. 5 (December 1962), pp. 1052-69.

<sup>16</sup> Wafik Grais, Jaime de Melo, and Shujiro Urata, "A General Equilibrium Estimation of the Effects of Reductions in Tariffs and Quantitative Restrictions in Turkey in 1978," in *General Equilibrium Trade Policy Modeling*, ed T. N. Srinivasan and John Whalley (Cambridge, Mass.: MIT Press, 1986), pp. 61-88.

### **Bureaucratic Capture**

Another phenomenon has been observed that relates to intervention: that is, once an agency or institution for regulating economic activity has been established, the self-interest of those public servants employed by it becomes a political force. Officials whose job is to allocate import licenses (to protect infant industries or for other reasons), or to decide which industries will be protected, will constitute a major source of opposition to proposed liberalizations of the system. Indeed, when things seem to go wrong, the usual bureaucratic cry is for more controls, and more authority, rather than less.

In part it is only human nature for individuals to believe that whatever they are doing is important and valuable. In part, however, the jobs that might be lost, were an agency's functions to be reduced or eliminated, are a relevant political consideration.

One may combine considerations of bureaucratic self-interest with the notions of capture discussed earlier. This might suggest that bureaucrats and the regulated industries may go hand in hand for reasons other than commonality of technical knowledge posited: bureaucrats may preserve their employment by regulating in ways which engender political support from the regulated industry.

This logic has been carried one step further in the political science literature. Known as the "iron triangle," it is based on American politics, but it may have relevance elsewhere. The iron triangle is said to consist of politicians, bureaucrats, and voters. Voters vote for politicians whom they perceive to be doing them "special favors." Politicians want to be reelected to office, so they need to have special favors that can be done for their citizens. Meanwhile, bureaucrats obtain their power by virtue of the command they have over the implementation of various functions. They do favors for constituents of incumbent politicians, and in so doing increase the likelihood of incumbent politicians' reelection. Incumbent politicians are therefore not interested in reducing the scope of special favors done by bureaucrats, and support their administration of controls. Meanwhile, once the controls are in place, voters support politicians who can influence the bureaucratic apparatus favorably from their (the voters') viewpoint.

### **Competition, Entry, and Exit in Markets and in Government**

It seems to be inherent in the nature of governmental controls that, once established, an agency is very likely to continue: the likelihood that it will be subdivided into two agencies, and expand, is considerable, while the likelihood that it will be disbanded is very small. This is largely for reasons already cited: bureaucrats who administer the controls will support their continuation, and those benefiting from the controls will easily identify themselves and organize to perpetuate and, if possible, enhance the benefits they believe they derive from the agency.

By contrast, markets provide feedback which can result in the pressures to reorganize, or possibly even in the exit of unprofitable firms. In some circumstances, of course, unprofitable firms are able to appeal to governments for support; in so doing, they are shifting from the economic to the political marketplace in perpetuating themselves. When they do so, the productivity and growth of the economy are, in most instances, impaired. In many developing countries, infant industries have continued for 20 and 30 years protected by high tariffs or very restrictive import licensing procedures. Worse yet, in some countries, firms which were unprofitable—even with high levels of protection—have been taken over by governments rather than be permitted to go out of business. The result has been an ever-increasing size of public sector enterprises and their deficits, with negative consequences for both growth and efficiency.

### THE MICROECONOMIC ROLE OF GOVERNMENT

The view of a governmental process as the outcome of an "iron triangle" operating in an environment in which lobbyists are particularly influential and in which rent-seeking is the order of the day is far distant from the conception of civil servants and governmental decision-making bodies as disinterested Benthamite social guardians.

It raises questions far different from those considered by early theorists of economic policy whose view was that market failure implied an automatic case for direct government intervention. A more reasonable approach, if one is guided by these considerations, is to attempt to assess the magnitude of "market failure" and its costs, and to weigh it against the magnitude of "government failure" and its costs. When "market failure" is found to be sufficiently severe to warrant governmental interference, there remains the question of how intervention may most effectively be achieved to reduce the likelihood of bureaucratic capture and of rent-seeking, and to maximize the expected benefits of correcting market failure.

In theory, the answer is fairly straightforward: on one hand, quantification of the failure to intervene at all is an estimate of what will happen under unfettered market conditions, and is no different under the new view of government than it was under the earlier, selfless-benevolent guardian view. On the cost side, alternative mechanisms need to be identified through which the market failure might be partially or entirely corrected. These usually have included the traditional solutions of straightforward government operation of the activity and contracting for private performance of the activity.

The emerging view of governmental behavior, however, suggests that search should also be extended to inquiring why markets are believed likely to fail, and to seeking incentive-compatible policy instruments that might be used to correct these failures.

The infant industry case provides a case in point. Many developing countries adopted high walls of protection, and now find themselves saddled with

“senescent infants” who grew old before they grew up! These high-cost industries constitute major political lobbying groups opposing change toward more efficient economic policies, and they simultaneously appear to be impervious to government controls seeking to influence their efficiency.

A few countries, however, sought to industrialize through alternative policy instruments. Instead of seeking to decide which industries were reasonable candidates for infant industry protection, they established incentives for exporters without regard to industry of origin. These incentives were sufficiently large that those who could profitably develop and expand for exporting identified themselves. Those who could export were encouraged through a variety of means, but those means were based on actual performance, and not upon the exporters’ promises of future behavior.

As described, this general model of “infant industry” protection is applicable to the Korean, Taiwanese, and Hong Kong experience. To a degree, it also describes the successful export performance of Turkey and Chile in the 1980s. The failures of infant industry policy, as practiced through efforts at futuristic identification of particular industries, are exemplified in the low rates of economic growth (and negative productivity growth) of India and many Latin American countries.

The lesson, however, is far more general. Although those deciding to undertake particular economic activities have more knowledge of the markets and their circumstances than do government officials, even they are confronted with considerable uncertainty. Decision making that will be socially and privately profitable is difficult at best in that environment.

When governments intervene through mechanisms that do not penalize those making less-than-optimal decisions, the mix of industries that will arise is very likely to include some whose forecasts of their future were unduly optimistic. When, however, there are strong rewards for those correctly assessing their prospects, and penalties for those who are overly optimistic (or merely seeking governmental protection), the mix of activities that will be undertaken will differ. Indeed, even the productivity and cost-effectiveness of the activities that would be undertaken under either regime are likely to be greater under a policy regime that rewards desirable behavior and penalizes undesirable behavior fairly automatically than they would be under a regime of indiscriminate important substitution.

Seen in this light, the role of an economist as policy adviser is not to identify specific industries, or to administer particular controls. Instead, it is to seek mechanisms which can be put in place under which those who will behave in the desired ways will find it in their self-interest to do so. In some instances—asymmetric information, for example—there will be no ideal mechanism, and policymakers may be forced to conclude that an imperfect market outcome may be preferable to an imperfect governmental outcome. In other cases, however, incentive-compatible mechanisms may be found, either through experimentation or through reliance upon an understanding of individual behavior in response to incentives. Almost surely, incentive-compatible

mechanisms will be those which offer rewards to those carrying out the desired tasks, offering greater rewards the lower the costs incurred in so doing, while simultaneously penalizing those who fail to perform the desired activity, or do so at higher cost.

The rapid growth of infant industries in Korea and Taiwan into successful, low-cost exporters testifies to the existence of infant industries and the ability of producers to react rapidly when confronted with strong incentives. The failure to achieve rapid growth of infant industries through direct controls, governmental ownership, and protection from imports, in countries such as India and Argentina, testifies equally strongly as to the inefficiencies of those policy instruments as means of achieving the same objectives.

Although many other aspects of government activity have not been as visibly inefficient as some efforts for infant industries, the sheer size of government in most developed countries in the world today increases the urgency of finding ways of achieving societal goals that are consistent with incentives for economic efficiency and low-cost performance. While theoretical developments and experience over the past 30 years have been fruitful in challenging the older visions of government, a challenge for future research is to improve understanding of public organizations and processes. With this understanding, it should be possible to articulate more clearly the comparative advantage of governments and markets in various types of economic activity, and to identify incentive mechanisms and structures for lowering costs of public sector activities.