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National Economic Planning: Methods and Problems

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# *National Economic Planning: Methods and Problems*

*Detailed description of economic relationships, and democratic choice among alternative scenarios, are essential ingredients of national economic planning.*

The notion of national economic planning that I have in mind is meant to encompass the entire complex of political, legislative, and administrative measures aimed at an explicit formulation and practical realization of a comprehensive national economic plan. Without a comprehensive, internally consistent plan there can be, in this sense, no planning. But the preparation of a script is not enough; the play has to be staged and acted out.

It is incumbent on anyone who favors the introduction of national economic planning in this country—and I am one of these—to propose a plan describing how this might be done. Several congressional committees and at least one commission ap-

pointed by the President, not to speak of groups outside of the government, are now engaged in this task.

## I

In its published form a national economic plan, or rather the statistical appendix to its text, can be visualized as a detailed, systematic annual survey of manufacture and of agriculture, of transportation, and of trade and the federal and local budgets. However, it describes the state of the economy not—as the Statistical Abstract or the Census of Manufacture does—for one of the past years, but rather for five years in advance and in a more summary form over a much

WASSILY LEONTIEF, Nobel Laureate in Economics, is Professor of Economics at New York University. This article was the Charles M. Moskowitz Lecture which he delivered on March 10, 1976, at NYU's College of Business and Public Administration. It is printed by permission of New York University Press from the forthcoming book *The Economic System in an Age of Discontinuity: Long Range Planning or Market Reliance?* by Wassily Leontief and Herbert Stein, to be published in August 1976.

longer interval of time stretching into the future. This does not mean, however, that a plan must be rigidly adhered to over the entire period of, say, four or five years. On the contrary, the plan should be revised each year in the light of past experience and newly acquired information, and pushed out as a moving average one year ahead.

A plan is not a forecast. The whole idea of planning assumes the possibility of choice among alternative feasible scenarios. Feasibility is the key word.

A particular national economy can and, in the context of the planning process, must be visualized as a system consisting of mutually interdependent parts. The trucking industry must be supplied with fuel by the oil refining sector; in order to expand it must be supplied by the automobile industry with trucks and replacements for worn-out equipment. To provide employment for additional workers, the automobile industry must not only be assured of an outlet for its product, but in the long run it must construct new plants and retool the old. In the process of doing so, it has to receive more plant space from the construction industry, and additional equipment from the machine building industry, not to speak of a greater flow of power, steel, and all the other inputs.

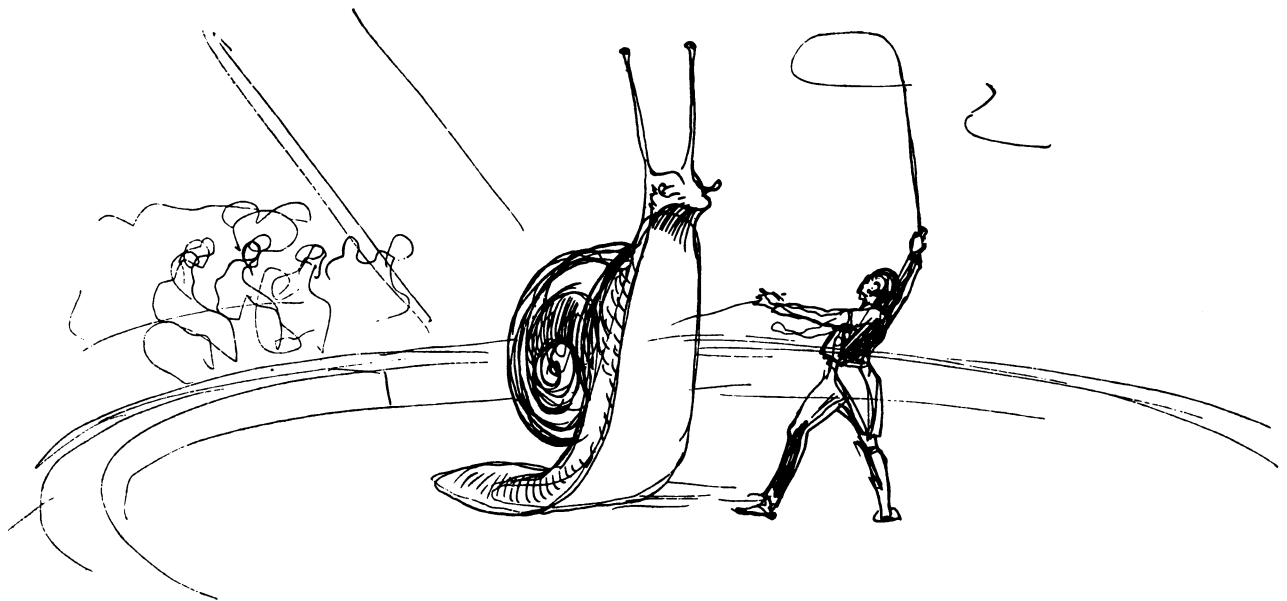
Traditional economic theory not only poses the problem, but also explains how its solution is, or at least can be, achieved through the operation of the competitive price mechanism, that is, a trial and error procedure that automatically brings about—in

each and every market—equality between supply and demand. In some markets and under certain conditions this actually works. But considering the lack of any reliable information on which to base their expectations, many business leaders have come to recognize that this trial and error game, instead of bringing about a desired state of stable equilibrium, results in misallocation of resources, underutilization of productive capacities, and periodic unemployment. This means lost wages, lost profits, and lost taxes—conditions that are bound to engender social unrest and sharpen the political conflict.

Conventional monetary and fiscal policies, relying on a rather sketchy aggregative description and analysis of the economic system, appear to be no more successful in compensating for the lack of systematic foresight, than is a frantic pushing and pulling out of the choke in correcting the malfunctioning and stalling of a motor. Occasionally it works, but usually it doesn't.

## II

The first input-output tables describing the flow of goods and services between the different sectors of the American economy in census years 1919 through 1929 were published in 1936. They were based on a rather gross segregation of all economic activities in 44 sectors. Because of the lack of computing facilities, these had to be further grouped into only 10



sectors, for the purposes of actual analytical calculations.

The data base, the computing facilities, and the analytical techniques have advanced much further than could have been anticipated forty years ago. National input-output tables containing up to 700 distinct sectors are being compiled on a current basis, as are tables for individual, regional, state, and metropolitan areas. Private enterprise has entered the input-output business. For a fee one can now purchase a single row of a table showing the deliveries of a particular product, say, coated laminated fabrics or farming machine tools, not only to different industries, but to individual plants within each industry segregated by zip code areas.

Not that anyone could contemplate including such details in a national economic plan. Such systematic information proves to be most useful in assessing structural—in this particular instance technological—relationships between the input requirements on the one hand, and the levels of output of various industries on the other. In the case of households these relationships would be between total consumers' outlay and spending on each particular type of goods. Stocks of equipment, buildings and inventories, their accumulation, their maintenance and their occasional reduction are described and analyzed in their mutual interdependence with the flows of all kinds of goods and services throughout the entire system.

Detailed, as contrasted with aggregative, description and analysis of economic structures and relationships can indeed provide a suitable framework for a concrete, instead of a purely symbolic, description of alternative methods of production, and the realistic delineation of alternative paths of technological change.

### III

Choice among alternative scenarios is the cue to rational national economic planning. This is in contrast to the crystal gazing that, with the rise of general uncertainty, has become a marketable product of the economic forecasting industry; it is also in contrast to the equally fashionable, although not as profitable, preoccupation with lofty national goals.

The important practical difference in the choice between alternative national economic plans and

the selection of an appropriate set of national goals can best be explained by the following example. A friend invites me for dinner in a first-class restaurant and asks that I supply him with a general description of my tastes so that he can order the food in advance. Unable to describe my—or anyone else's—tastes in general terms, I prefer to see the menu and then select, without hesitation, the combination of dishes that I like.

Confronted with alternative national economic plans—each described in great detail, particularly in respect to items that are likely to affect my own well-being and my personal assessment of the equity and fairness of the whole—I would have no difficulty in deciding which of them I would prefer or, at least, consider not inferior to any other: this, despite my inability to describe my preferences, my predilections, and my prejudices in general terms. A philosopher, a social psychologist, or a historian might succeed in arriving at such a generalization by inference based on interpretation of my utterances or, even better, of specific choices I have actually made before. But that, of course, is an entirely different matter.

This, I submit, is the reason why a planning process should start out not with the formulation of what theoretical economists refer to as the general "objective function," but with an elaboration of alternative scenarios, each presenting in concrete, nontechnical terms one of the several possible future states of the economy. The volume or series of volumes containing such alternative scenarios would read not unlike issues of the United States Statistical Abstract with sections devoted to Industrial Production, to Agriculture, to Trade and Transportation, to Consumption, to Medical Services, to Education and so on—not only on a national but also on regional and even local levels.

Karl Marx would have rejected this as a utopian approach, and so do the libertarian opponents of national economic planning. Both view the concrete shape of the unknown future as unfolding itself while time marches on. The only difference between these two sets of believers in the "invisible hand" is that the latter are ready to accept and approve whatever might come, provided it has not been planned, while the former are convinced that, while unpredictable in all particulars, the path inevitably leads to violent collapse of the present social and economic order.

## IV

To repeat: public discussion and democratic choice among the available alternatives will be possible only if each of them is presented in concrete, tangible details rather than in such summary terms as the per capita GNP, the average rate of unemployment, or the annual rate of growth of the “implicit price deflator.”

The technical apparatus required for projection of such detailed realistic images is bound to be—like the inside of a television set—quite intricate and very costly. When it comes to preparation of a national economic plan, no effort should be spared in making use of the most dependable data-gathering and data-handling techniques, and of the most advanced economic model-building and computational procedures.

The programs of the principal federal statistical agencies will have to be greatly strengthened and in some instances overhauled. Much of the needed additional information can be obtained not through official questionnaires, but by means of more sophisticated methods successfully employed in commercial market research with the help of specialized private data-gathering organizations.

Most of the economic forecasting business develops its projections in such aggregate terms that relevant details pertaining, for example, to anticipated technical change are either disregarded at the outset or get dissipated in the ascent—or should I say descent—from concrete engineering details to the formation of representative indices or broad statistical aggregates.

The data-gatherers and model-builders involved in the planning process will have to break down the barrier that separates economists, in particular academic economists, from experts possessing specialized technical knowledge of various fields of production and consumption, as well as of private and public management.

Alternative scenarios can be expected to differ from each other mainly in apportionment of the available economic resources between private and public use and, in the case of public use, between larger or smaller allocation, to the satisfaction of this or that category of pressing needs. They will incorporate alternative policy proposals concerning energy, environment or, say, foreign aid and national defense. To the extent to which resource availability and even the fundamental consumption patterns of

various types of households are not overly affected by a shift from one scenario to another—however different they may be in their political, economic, and social implications—such a shift will involve the use of essentially the same analytical formulation and of the same data base.

## V

The internal set-up of the organization responsible for preparation of alternative scenarios, and the elaboration of the national economic plan and its subsequent revisions, has to be dictated by the requirements of its technical, nonpolitical task. One can visualize it as an autonomous public body loosely connected with the executive branch of the federal government. Eventually, it should be linked with its counterparts in the fifty states and possibly with some large metropolitan areas.

The final version of the national economic plan will be an end product of typically American political logrolling and legislative wrangles. The stand-by role of the technical organization referred to above will consist in seeing that through its entire transformation from the first to the last, the overall plan retains its integrity: do not allocate more than you can produce, but also see to it that nothing is left over (unemployment is labor that is left over!).

## VI

However intricate the process of drawing up the blueprint of the building, the task of actual construction poses a still greater challenge.

To try to describe systematically and in full detail the array of measures to be used for purposes of practical implementation of the first national economic plan would be as futile as an attempt to trace in advance the route that Lewis and Clark followed on their way to the mouth of the Columbia River. I will take up one by one, however, some questions that have been raised about the practical possibilities of introducing national economic planning in this country.

In the abstract, one could imagine a self-fulfilling plan—that is, a plan that would be acted out on the economic stage, once the script has been explained, without any prompting. Practically, this is an impossibility. However, the statement must be qualified. So long as the main characters can be induced, in one way or another, to play their parts, the rest of the

cast can be expected to join in spontaneously. Once, for example, a decision has been made and necessary capital has been provided (in compliance with the plan) to proceed with construction of a new fertilizer plant, then equipment manufacturers, building contractors, and other suppliers will fall over each other to provide the necessary structures, machinery, and all the other inputs. The force propelling them will be, of course, the profit motive operating through the automatic supply-demand mechanism. As a matter of fact, that force and that mechanism can be expected to operate particularly well if, in accordance with provisions of the national plan, the availability of energy, labor, and all other inputs is secured in the required amounts in the right place at the right time. In a planned economy the price mechanism will be an effective but humble servant of society, not, as it often is, an overbearing and all too often fumbling master.

In the above example, the point of direct, as contrasted to indirect, enforcement of a plan was the decision to expand the productive capacities of particular sectors. The specific means used in this case might have been selective control of capital and credit flows, tax exceptions, or even direct public investment.

The selection of strategically commanding points at which to apply direct influence or control as well as the choice of the method or combination of methods to be applied at each point to bring about compliance with the plan has to be based on the concrete study of the lay of the land and of the specific configuration of economic flow. The analogy with the task of a hydraulic engineer charged with regulating a major water system is more than superficial. Dams, dikes, and occasional locks have to be placed so as to take advantage of the natural flow propelled by gravity—the profit motive—but at the same time eliminating floods and devastating droughts.

Considering the great extent to which the government now affects the operation of the U.S. economy, and the variety of ways in which it does so, one of our lesser worries should be the lack of the accelerating, braking, or steering devices that could be used to guide it smoothly and securely along a chosen path. The real trouble at present is that the government not only does not know what road it wants to follow, but does not even have a map. To make things worse, as I have had an opportunity to ob-

serve on other occasions, one member of the crew in charge presses down the accelerator, another pumps the brakes, a third turns the wheel, and the fourth sounds the horn. Is that the way to reach your destination safely?

## VII

These observations, naturally, lead to the question of planning within the federal government itself; charity should begin at home. The recent establishment of orderly budgetary procedures is a move in the right direction, but it only scratches the surface of the problem.

Consider, for example, the lack of effective coordination between our environmental and our energy policies. Each is controlled by a different department, not to speak of many smaller, often semi-autonomous agencies. Production of fuel and generation of energy are two of the principal sources of pollution. Any major move in the field of energy can be expected to have far-reaching effects on the environment and vice versa. The energy-producing industry is immediately and directly affected by anti-pollution regulations. The obvious practical step to solve this problem is for both agencies to combine their data banks (i.e., their stocks of factual information), and to agree to base their policy decisions on a common model. This model should be capable of generating scenarios displaying jointly the energy and the environmental repercussions of any move that either one of the two agencies might contemplate making. Adversary policy debate could and should continue, but adversary fact-finding would become impossible, and policies that tend to cancel out or contradict each other would at least be shown up for what they are.

But why should one not include the railway industry, and air and highway transport in the same picture? These sectors, after all, not only use fuel but also move it and discharge pollutants—unless precautionary measures have been taken. Indeed, why not? Particularly if that could induce the semi-independent agencies concerned with the regulation of these sectors to coordinate their actions with those of the Energy Research and Development Administration and the Environmental Protection Agency. But this leads directly to national planning; yes, indeed, it does.

While monetary and fiscal measures have for years

served as instruments of economic policy planning, the nearly exclusive reliance on these two tools, under the influence of the Keynesian, and should I add Friedmanian, doctrines, can hardly be justified by the results attained. Other means of keeping the economy on the right course must come into their own.

## VIII

This has immediate bearing on the problem of inflation. The fact that the labor unions, while concerned with real wages, can bargain only for money wages, is a major, possibly *the* major factor contributing to perpetuation of the inflationary spiral. General wage and price controls without supporting national planning action are bound, in the long run, to bring about cumulative distortions in the allocation and utilization of economic resources. Within the framework of an effectively conceived planning action they

would become unnecessary and eventually obsolete. By offering labor leaders the opportunity to take a responsible and effective part in the design and implementation of a national economic plan, the power of organized labor would thus be applied where it counts, instead of being dissipated or absorbed by inflation.

I see no reason to assume that the introduction of national economic planning would require or could bring about a marked shift in the overall national balance of economic and political power. The wealthy, with the support of their retainers, can be expected to continue to rule the roost. The inner workings of the system would, however, become more transparent. By comparing scenarios prepared in conformity with Mr. Reagan's or President Ford's ideas and those constructed according to Senator Humphrey's or Congressman Udall's or Governor Carter's specifications, the American citizen would find it easier to make a rational choice.

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