

Economic Policy: National, Institutional, and Individual Issues*

SIDNEY L. JONES**

When the famous economist John Maynard Keynes wrote, "Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist . . .,"¹ he emphasized the universal impact of economic concepts. Despite this basic importance, the study of economics has been labeled the "dismal science" since the days of Malthus and generations of college students have devised even more unflattering descriptions. In recent years economists have weakened the already tenuous communication links by expressing their views in the relatively unfamiliar, symbolic language of mathematics which makes their vital message appear to be even more remote from the problems of the real world.

Such alienation and confusion is unfortunate in our complex society which is shaped by diverse economic forces. The discipline of economics is basically an analytical approach to identifying and ranking alternative goals—national, institutional, and personal—and the various means of achieving the accepted goals using human and material resources which are

*Parts I and II of this paper are adapted from the author's public lecture at the Fifth Richard C. and Vera Calder Stratford Seminar, March 4 and 5, 1970, sponsored by the Brigham Young University College of Business.

**Dr. Jones is presently serving as Special Assistant to the Chairman of the Council of Economic Advisers, on leave from the University of Michigan where he is a professor of finance. He has authored and coauthored many books and publications, including *The Generalist-Specialist Dichotomy in the Management of Creative Personnel* (1960), *Managerial Problems in Finance* (1964), *Financial Institutions* (1966), and *Corporate Financial Policy* (1962).

¹The General Theory of Employment, Interest and Money [1936].

usually in short supply, particularly if quality is considered. To be ignorant of economic concepts is not to be exempt from their pervasive influence. A traveler boarding a boat will eventually arrive at a different location; but the trip is more meaningful if he knows the actual destination, the cost of the ticket in absolute terms and relative to alternative means of transportation, the time expectations, the probable benefits and risks involved, and the effect the experience will have on his other goals. To make effective national, institutional, and personal decisions we must understand the priorities and decision-making processes of our political economy.

This paper attempts to summarize a few basic concepts of economics as they affect our lives. Part I reviews the complexity of national economic policies. Part II discusses the crucial importance of economic analysis in identifying national priorities. Part III suggests that economic principles can be used to make practical decisions in our institutions, families and personal lives. Most readers are already applying these principles based on the wisdom accumulated through study and experience, but explicit identification of the underlying reasoning may sharpen the understanding and effectiveness of decisions.

PART I

A superficial view of economic policy making would suggest the existence of some omnipotent tribunal objectively selecting some "best" set of principles which would clearly establish the ground rules for the entire system and occasionally make necessary adjustments.

In reality, there is a complex interface of diverse and competing policies. Economic programs must usually reflect political and sociological realities. All three spheres of influence should recognize the rights and needs of the individual. Operating policies actually become a synthesis of ideals and compromises. As the famous economist Kenneth E. Boulding has said, "where there is not enough ignorance to be bliss, however, policy is hammered out between the hammer of organized pressure groups and the anvil of electoral opinion."²

A. At least four major economic goals may be identified:

²Kenneth E. Boulding, *Principles of Economic Policy* (Englewood Cliffs, N. J.: Prentice-Hall, 1958).

(1) growth; (2) stability; (3) equitable distribution of the national output; and (4) equilibrium in the international balance of payments. To this basic list might be added: (1) improvement of the physical environment; (2) efficient operation of markets; (3) technological innovation; (4) individual freedom and fulfillment of one's potential; (5) social harmony, etc. Although each objective is highly attractive, coordinated achievement is exceedingly difficult. Even these basic goals contain serious contradictions requiring unwanted compromises, particularly when it is recognized that national resources are limited.

For example, the pace of economic activity was accelerated in 1965 by rapidly expanding government expenditures for defense *and* nondefense programs without corresponding increases in tax revenues while monetary policy was significantly eased to help finance the increased demand. A Federal deficit of \$25 billion in Fiscal Year 1968, rampant inflation caused by excessive demand and justifiable skepticism about the responsibility of government actions, and serious questions about the ordering of national priorities are the direct result of this unwise combination of fiscal and monetary policies. The economy must now pay the adjustment costs during the transition to a sustainable growth path. Similarly, policies favoring low interest rates and maximum imports may stimulate growth of domestic consumption, but the outflow of capital and deteriorating trade balances would aggravate our international-financial problems. Third, emphasis on technological innovation to stimulate growth may cause short-term problems. Too often our economic system has failed to recognize the legitimate needs of all of our people, created tragic pockets of poverty, polluted the physical environment, caused many of our cities to become almost uninhabitable and raised serious doubts about the moral aspects of the materialistic society we live in. The obvious fact that these inequities are disproportionately focused on racial minorities following years of overt prejudice has created many social problems. This national disgrace is inexcusable for both moral and utilitarian reasons. The oppression involved has restricted the development of national human resources and created a tremendous welfare burden to be borne by society.

B. A second problem involves adaptation to changing conditions. Complex organizations with established bureaucracies

usually value continuity and strongly resist change. Nevertheless, increasing populations, urbanization, changing social concepts, environmental problems and international developments, all require increased flexibility. A classic example involves the regulatory approach to controlling competition among financial institutions through restrictions placed on the yields paid on savings. Since 1966, Regulation Q has curtailed disruptive rate wars, but rising yields on open market instruments such as Treasury bills, Federal National Mortgage Association (FNMA) bonds, commercial paper, tax-exempt municipal bonds and corporate securities have diverted the flow of savings away from thrift institutions. The reduced availability of mortgage financing has directly restricted the housing industry. Relationships among financial institutions and various factors such as yield limitations, interest rate ceilings on FHA and VA mortgages, the mortgage instrument itself, and State usury laws all require careful modification. Similar examples of dynamic change could be cited in almost every subject area influenced by economic activity.

In the past, policies could be general enough to apply to a relatively homogeneous population. The system is now changing so rapidly that there are major differences in the needs of diverse groups: (1) urban/rural; (2) youth/aged; (3) poor/affluent; (4) national/international; (5) regional interests. Unless economic policies can be adjusted to this diversity, the resulting breakdown will seriously affect political and socio-logical patterns.

C. A third policy issue involves the extreme difficulty of implementing decisions. In our democratic, market-oriented system it is difficult to make even simple programs work. Human managers remain fallible at best and corruptible at worst. Problems of understanding the organizational superstructure have become almost insurmountable. In some cases there is even willful failure to perform because of jealousy, competition for bureaucratic power, or simply misunderstanding about the real intent of policies (for example, foreign trade officials are currently promoting the production of tobacco for export sales while the Department of Health, Education and Welfare attempts to convince the American public that smoking is unhealthy).

It is interesting that approximately one half of the advice

received by the Council of Economic Advisers during the past few months has claimed that the policies adopted are *clearly inadequate* to halt the overheated expansion of the economy and the associated inflation. The other half consists of dire predictions that these same policies are *clearly excessive* and will undoubtedly result in a recession. Business leaders demand wage controls; union leaders call for price controls; home builders request curbs on business investment; financial institutions decry the special efforts to support housing; and the general public simultaneously denounces government waste and spending while demanding increased services and benefits. Individual Government agencies struggle for power and countless lobbyists constantly advocate the goals of special interest groups. The Council stands in the middle of these pressures trying to advise the President that the return to fiscal responsibility, combined with strict monetary restraint, will reduce the real causes of inflation and that price measures, traditionally a lagging indicator, will reflect the basic adjustment. The economy is now moving through a delicate period of transition along a planned path toward a sustainable growth rate. By mid-1970 various measures of real output appear to be increasing while the rate of price increases declines.

D. Ironically, the short-term impact of new directives is often perverse. For example, inflation has priced a large proportion of American families out of the home market, but policies designed to alleviate inflationary pressures have unfortunately restricted the availability of mortgage financing. The resulting decline in new building has increased prices of existing homes and apartments causing a significant increase in the Consumer Price Index. The program designed to curtail inflation has apparently aggravated the situation during this transition period. A sampling of the long list of contradictory policies includes:

- An agriculture program which often restricts output and diverts subsidy payments to the largest farms.
- A tax reform effort which has seriously restricted sources of badly needed revenues.
- Attempts to reduce employment in the defense sector while we fight unemployment elsewhere.
- Development of public housing projects which the poor cannot afford.

—Efforts to expand the number of new minority owned businesses while various trends indicate the competitive disadvantages of small firms.

—Massive issues of FNMA and FHLBB³ bonds to pump money into the mortgage markets even though the effort diverts funds from other mortgage-oriented financial institutions.

—Development of intricate controls to restrict the outflows of capital even though the long-term position of the United States in foreign trade and investment is weakened.

—Continuous pleas to the Council of Economic Advisers to adopt direct controls which would probably postpone and make more difficult the necessary adjustments.

E. It might even be asked whether or not we have economic policies at all, or simply a basic philosophical commitment to a system of modified capitalism supplemented by individual operating procedures. My own experiences suggest that general policies are fairly standardized and that most modifications occur as a result of changing conditions rather than any basic adjustment of goals. Therefore, most decisions about the allocation of resources are based on the pricing system operating through the private markets. The Government does have a major impact on the economy through its spending and tax programs, but most "so-called" shifts in economic policies are simply variations in the implementation of stabilization procedures. The major effect of a change in national leadership is to increase the frequency and objectivity of appraisals of existing programs. The current Administration may place greater emphasis on allowing the private market system to operate, the importance of monetary policy in achieving stabilization and the absolute necessity of greater fiscal responsibility, but economic activities have a basic continuity over time.

F. In the future, economic activity will be even more complex and dynamic as technological and sociological change continues. To keep pace, public and private institutions will need to consider carefully these basic questions:

1. *Do policies seek out goals or simply react after con-*

³The Federal National Mortgage Association (FNMA) and the Federal Home Loan Bank Board (FHLBB).

ditions have changed? During this difficult time of abrasive challenges to every familiar institution there is a great temptation to seek a false security by sustaining the status quo of existing policies and procedures rather than forthrightly facing the uncertainties of change. But change offers great opportunities for progress just as it creates substantial risks.

Business firms and government institutions are subject to diverse pressures as the external environment shifts and the internal organization changes. The response of the organization—whether public or private—to these internal and external pressures must ultimately reflect the best interests of the owners and society. Often the institutional response to external pressures will have to be negative when the changes suggested would tend to corrupt and destroy the things of value within the organization. Similarly, internal demands must often be rejected when the total organization would suffer harm even though specific members of the group would be more satisfied after the change. But the crucial point is that such policy decisions—to accept or reject change—can only be based on thorough and objective analysis. Three requirements are basic: (1) the consideration of organizational policies must be completely honest and must provide for inputs of all relevant information and diverse viewpoints; (2) every policy must be subject to frequent review to prevent the institutional equivalent of a petrified forest; and (3) there must be an institutional willingness to change if there are clearly superior alternatives.

In reality, an effective balance of these pressures is difficult to maintain. Change merely for the sake of change is irrelevant and may waste resources. But institutions must also avoid the loss of creativity which occurs when external and internal changes are rejected simply to avoid modifying familiar patterns of behavior. A dynamic organization must take the offensive by creating policies that anticipate change rather than reacting from a position of weakness after pressures accumulate. The familiar recommendation to parents of teenagers, which goes, "Would you rather get up early in the morning to help your sons and daughters go to Seminary, or wait up late at night wondering when they will come home?" suggests the value of planning in advance to meet the challenges of life rather than improvising solutions to emergencies.

2. *Do institutional policies shape and improve individual lives, or simply conform to existing viewpoints?* The relationship of the institution and its membership is a reciprocal arrangement. The members determine the goals and procedures of the organization and, in turn, have their views shaped by participating in the activities of the institutions. For example, most Americans believe that a republic form of organization with democratic elections is the most desirable type of government, but this preference is heavily influenced by our personal experiences within this system. People in other nations—at least those who are fortunate enough to have the freedom of choice—apparently prefer other types of governmental systems based on their national experiences.

However, the obligation of the institution to be responsive to the best interests of its owners and society creates a difficult dilemma. If we recognize that continuous progression is desirable then the organization must constantly press for improvement which may cause existing viewpoints and behavior patterns to be changed. This requirement forces the managers of economic units and government officials to lead, rather than lag behind, the owners, employees and the general public in identifying desirable goals and behavior patterns. In other words, those institutions that we most admire must set the pace for progress and must motivate us to develop behavior patterns closer to the ideals established.

3. *Do policies challenge us to progress, or simply validate the status quo?* This point summarizes the discussion above. In our complex society it is clear that policies must be responsive to the challenge of change. Those institutions which are responsive will significantly contribute to the growth of our economy and society in general. Such growth does not mean that desirable beliefs and behavior patterns should be abandoned, but that we recognize more clearly the great potential of our institutions for improving the individual.

PART II

Once the general economic goals have been identified and the necessary adjustments made to reflect the complex problems discussed in Part I, more specific "national priority" decisions must be made as a basis for allocating the available human and

material resources. America obviously has great wealth and productive capacity as the Gross National Product rapidly approaches the one trillion dollar mark. In fact, the amount of increase of our GNP each three months exceeds the total output of almost every nation in the world except for a handful of other industrialized countries. Our system has clearly provided unprecedented affluence for most people.

Nevertheless, there is intense concern and frustration concerning the quality of life.

- Individuals appear to be dominated by the complex institutions representing big business, big unions, big governments, big technology, big education, big churches, and big communities.
- The distribution of national output leaves millions of people still living in poverty.
- Operating inefficiencies waste human and material resources.
- Discrimination in various forms exists throughout the system as the complacent majority reacts with tokenism at best and condescension at worst.
- Our physical environment is abused by pollution.
- Crime is rampant, including the white collar variety involving businessmen and affluent suburbanites seeking a thrill through shoplifting.
- Traditional values, including the validity of the educational process, are increasingly questioned.
- In general, there is a widespread feeling that our national resources are too often misallocated.

In the early 1960's it was claimed that the difficult priority decisions would be eliminated automatically by the rapid growth of the economy. We have had growth, but there is a limit to the Nation's productive power. When this capacity is exceeded by suddenly increasing expenditures, when taxes are reduced to gain political favor, and when massive Federal deficits are financed through excessive monetary expansion, the result is inflation with all of its distorting effects. What is really required is an analysis of the total potential output and the expected claims against it as a basis for evaluating the feasibility and relative advantages of existing and proposed pro-

grams. At the very beginning of the Nixon Administration specific assignments were made to conduct such a study. The results are summarized in Chapter Three of the *Economic Report of the President* (February 1970) prepared by the Council of Economic Advisers. *The basic message is that the growth of existing programs will fully exhaust the potential output of the economy throughout the near-term future. Therefore, if existing programs are expanded, or new priorities emphasized, some existing activity will have to be reduced.* The total production of goods and services, very crudely measured by the statistic Gross National Product, must be very carefully committed to balance the various public and private claims against this output.

Some critics may challenge the basic assumption that the Federal Government should be concerned about the allocation of national output in a market-oriented economy. In reality, the Federal Government has a crucial influence through: (1) its expenditures (11 percent of national output); (2) tax policies (20 percent of national income); (3) grants, loans and transfer payments (the residual amounts); (4) the direct impact of Federal surpluses or deficits on private investment; and (5) its ultimate responsibility to resolve conflicts among special interest groups in the allocation of national resources.

It is obvious that there are many worthwhile claims against the potential national output. It is also generally accepted that the Government must carefully ration its resources within the scope of approved budgets. The great effort made to preserve a responsible budget for Fiscal Year 1971 is a classic example. It is often recognized that the existence and size of Federal surpluses and deficits should vary over time as goals change and economic conditions fluctuate. Unfortunately, the Nation has not understood the crucial impact of the Federal activity on the total economy, particularly private investment. The future long run average (stabilization adjustments will still occur) size of Federal surpluses or deficits must be based on investment needs of the total economy, not just the Government sector. Once the appropriate figure is determined, the goal should not be modified unless national priorities change. To achieve this objective any increase in average expenditures must be limited to the growth of revenues as determined by the real productive capacity of the Nation. If new programs are added, or existing

ones expanded, the changes must be matched by expenditure cuts elsewhere or by increased taxes. For example, if housing output is to be increased, budget surpluses (on a national income account basis) must be provided so that private capital markets have access to funds, or the Federal Government must subsidize programs within the unified budget. Economics has always been a matter of choices, but policy makers too often ignore the realities.

The analytical framework developed by the Council projects the available national output for the years 1970 through 1975 based on many assumptions about the size and productivity of the labor force, the pace of private investment, housing needs, State and local Government spending, personal consumption and savings patterns, and international trade balances (see Table I). *All of these assumptions, of course, may vary, but the basic approach is valid.* In projecting government spending, only the "baseline" programs were included—that is, a stable growth of existing commitments plus additions from pending legislation. The sum of already existing and firmly anticipated demands already exhausts the potential output and it will be at least 1975 before a sizeable "unclaimed" surplus exists. As priorities are reordered and new programs are added, the Nation will have to sacrifice existing claims. This point does not mean that growth will be lacking. To the contrary, a strong increase in *real* output growth is one of the basic assumptions of the entire study. In fact, *real* per capita personal consumption is expected to rise about 3½ percent per year compared to the pace of 2½ percent per year during the period 1957 to 1967. The conclusion is simply that choices must be made since there is an obvious truism that the total of satisfied claims cannot exceed the available national output. Although this conclusion appears obvious, the role of the Council of Economic Advisers in advocating the analytical approach adopted may well be its most important contribution.

PART III

Individuals may also benefit from an understanding of the basic concepts of economic analysis. Most of these principles are simply practical applications of common sense that can be easily adapted to personal experiences.

TABLE 1
GROSS NATIONAL PRODUCT, 1969 AND PROJECTIONS FOR 1970-75
(Billions of Dollars, 1969 Prices; Calendar Years)

Claim	1969					Projections		
	Actual	1970	1971	1972	1973	1974	1975	
Gross National Product Available	932.3	944	980	1,042	1,103	1,150	1,200	
Claims on Available GNP	932.3	944	980	1,042	1,100	1,144	1,188	
Federal Government Purchases	102.0	93	89	88	87	87	86	
State and Local Government Purchases	112.7	116	120	125	131	137	142	
Personal Consumption Expenditures	576.0	594	620	664	704	735	769	
Gross Private Investment	141.7	141	152	166	178	186	192	
Business Fixed Investment	99.3	103	105	111	116	120	125	
Residential Structures	32.2	29	34	40	46	49	49	
Other Investment	10.1	0	14	15	16	17	18	
Excess of Claims	.0	0	0	0	-3	-6	-12	

NOTE: Projections are based on projected Federal expenditures and their influence on various components of GNP.
Detail will not necessarily add to totals because of rounding.

Source: *Economic Report of the President*, 1970, p. 79, based on materials developed by the Council of Economic Advisers.

THE MARGINAL APPRAISAL OF BENEFITS AND COSTS

The *establishment of priorities* which identify the timing and relative importance of diverse personal goals as a basis for allocating our scarce human and material resources is the most important contribution of economic analysis. Rigorous evaluation is needed to first separate worthwhile goals from the total array of possibilities and then to rank them in descending order of importance. This process, of course, does not guarantee that the right goals will be selected and properly ranked, but the probability is greatly increased if our analysis forces us to examine the important variables and to distinguish between ends and means. For example, for most people academic study is a *means* for achieving broader *goals* of self development, career opportunities, and financial security. Understanding the difference enables us to seek a personalized education experience. Even more important, since personal goals change over time, the wise person recognizes that education must be a life-long process. Unless we carefully identify these personal priorities life becomes an unplanned sequence of unrelated decisions in which external pressures and random events become the dominant influence.

The identification of priorities requires a *cost/benefit analysis* which specifies the returns expected from the investment of personal resources. In training to be a skilled craftsman, the individual must weigh the long years of difficult preparation against the expected job satisfactions and financial rewards. It is obviously difficult to place quantitative values on future events, but the effort must be made to avoid naive decisions.

Effective cost/benefit analysis is based on an understanding of *marginal costs* and *marginal revenues* (benefits). Marginal refers to the last commitment and the last response. The young college graduate considering a teaching career must decide between going directly to work or making a marginal investment of time and money to obtain a master's degree. The marginal costs would include the lost income during the period of additional schooling. The marginal benefits might include broader career opportunities and higher earnings over the entire career. Once the master's degree is obtained, our hypothetical student must make a similar decision regarding further education. The concept of marginal analysis applies to almost every decision in

life because most events are preceded by a long series of experiences which *have already determined the present status*. Unfortunately, most people do not understand the marginal nature of decisions and think in terms of absolutes. For example, we may claim that the family *must have* a new car without considering the extra outlay relative to public transportation or continued use of the existing family automobile. An awareness of the marginal nature of decisions will help us understand the importance of expanding our efforts until the marginal costs of incremental commitments equals the marginal benefits of the activity.

An understanding of marginal costs and marginal benefits highlights a crucial concept of economic analysis known technically as *diminishing marginal utility*. Many people continue the same routine so long that they increasingly receive lower returns from the continued commitment of their time and effort. The undergraduate student who concentrates all of his coursework in a narrow subject area, the junior executive who confines his work to a repetitive function, the piano student who learns only a limited selection of music, the housewife who allows the routine of home care to restrict her personal development, etc., are examples of excessive specialization. It is often necessary to concentrate, particularly for short periods of time, in order to gain unique expertise, but for most of us life is magnified by enjoying diverse experiences. The housewife who concentrates on sewing might derive great *marginal benefits* from a small *marginal cost* (commitment of some portion of her sewing time) in studying art. The husband who has developed excessive enthusiasm for sports might derive great marginal benefits from devoting himself to a family outing. We can avoid the dangers of *diminishing marginal utility* by seeking a balance of personal, family, church, job and community activities.

An understanding of marginal results also enables us to appreciate the *opportunity costs* associated with decisions. A commitment to one course of action necessarily creates a loss of marginal benefits from the alternative that is rejected. The decision to attend a baseball game precludes working in the yard, returning to the office, reading, community work, etc. The decision is the correct one only if the expected benefit exceeds the opportunity cost of the lost alternative. This concept is obviously

important in making decisions about education, family finances, travel, recreation, church and community service, and the balance of job and personal interests.

The broad range of decisions listed suggests another basic economic concept that the *downside risk* may exceed the *potential upside gain*. For example, consider a family that has saved \$1,000 in anticipation of the worthwhile activity and which has an opportunity to invest the money with some promise of doubling the amount. The downside risk of losing the original amount is much more significant than the upside benefit from capital appreciation. This concept is too often ignored in making career and family decisions with even broader implications than the simple investment commitment described.

Finally, in considering priorities it should be recognized that *time is the most valuable resource*. Parents must consider the time of their children in this context and organizations must similarly guard against wasting this valuable resource. There is a fallacious assumption that time is a free commodity that can be used without regard to marginal productivity. There is always an opportunity cost involved in giving up an alternative activity.

WELFARE ECONOMICS

A major challenge facing society is to rationalize policies which adequately reflect the diversity of economic aspirations and needs. The satisfaction of these aggregate demands and the efficient allocation of human and material resources is the subject of welfare economics. The greatest welfare for the largest number of people becomes the standard by which national economic policies may be judged.

The *welfare function*—the aggregate level of satisfaction—varies for each person and each family. The important point is that the mixture of aspirations, activities, and experiences may be very different, but the ultimate level of achievement and satisfaction may be equal. Unfortunately, we tend to judge others by our own particular life style. For example, young people are too often subjected to intense social and parental pressures to fit into preconceived views about "suitable" education and career paths for which they are neither interested in nor qualified for. The resultant misallocation of human re-

sources has filled the colleges with unmotivated students and prevented the development of badly needed skilled workers. The combination of lost skills and personal frustrations is a cruel price to pay for our mistaken beliefs that we should all conform to some uniform pattern of education and career expectations.

To achieve maximum levels of welfare often requires a *specialization of labor* and emphasis on *economies of scale*. The concept of specializing to gain a comparative advantage is a familiar one. Some people have natural skills that automatically create special opportunities. But for most of us the advantages of specialization must be developed through extensive training and a willingness to adapt to specific situations. The most successful economists at the Council of Economic Advisers are those who can apply their general training to actual problems. Their effectiveness further depends upon their willingness to be flexible, to accept the challenge of beginning from point-zero in building up special expertise on a specific assignment and a certain humility needed to sustain them through the difficult period of analysis which must precede decisions. For other assignments they may be joined together in teams to study large problems that would dwarf the knowledge and skills of a single staff member. By combining the efforts of many specialists to solve massive problems the fixed costs of administration can often be reduced. The ideal of family cooperation is an obvious practical application.

The principles of specialization and advantages of cooperation in handling large projects are clear, but we should not try "to learn more and more about less and less until we know absolutely everything about practically nothing." A basic principle of economics involves *diversification* to avoid the risks of excessive specialization. A balanced program of personal and family activities will stimulate increased creativity and avoid boredom. In family relationships we are often required to function as specialists, and valuable economies of scale are often gained by combining the specialists into teams, but individual development should be encouraged by providing the challenges of new assignments.

Another basic principle of economics involves *the test of the market place*. Parents and organization leaders could often avoid resentment and refusals to cooperate by testing their

products—their plans, operating rules, work assignments, etc.—on others before final decisions are made. The introduction of the Edsel automobile a few years ago was based on a careful preliminary study of the market, but the buying habits of consumers had shifted by the time the car was actually ready for sale. Our children and associates are actually the market that we are trying to sell our ideas to. If the market rejects a product, the sponsor must either develop a more attractive substitute or a more persuasive sales presentation. The degree of acceptance of basic goals and operating procedures within families and organizations is also enhanced by the economic principle of *decentralizing decision-making* as much as possible without the loss of central coordination and evaluation of performance. As a basis for evaluating the reactions of family members and associates an *information system* must be developed so that communication becomes possible. Experience suggests that creating such a system in economic organizations is extremely expensive and difficult to arrange. It is ironic that most of us take such a casual approach in creating a similar communication network for our families and interpersonal relationships.

Observation of economic activity clearly indicates the existence of the *multiplier effect*. For example, in shaping Federal fiscal policies the multiplier effect is a basic factor. In deciding between two proposals—one to increase social security payments and the other to commit Federal funds to new water pollution control programs—there are distinctly different repercussions. The increase in social security benefits would increase the amount of personal income available to consumers and the level of national consumption would probably rise slightly as a result. The pollution control program would likely set off a series of economic changes—that is, the multiplier effects would be widespread. The Federal funds would probably act as “seed capital” requiring matching grants from state and local governments causing modification of budget and tax programs at those levels. The purchase of control equipment would stimulate new investment by business firms and additional construction activity. Employees would be hired for the specific programs involved; and various businesses supplying equipment, construction, and services would increase their employment. The increased payrolls would stimulate consumption

—the same result as occurred in the first example—and the multiplier effects of the diversified pollution control program would broaden the impact of the original spending throughout the economy of the entire area affected. In making personal and family decisions *multiplier effects* often become crucial. Some decisions—about careers, geographical location, home ownership, standards of conduct, education opportunities, etc.—create ripple effects that affect many other people and have long-term effects. The obvious point is that decisions in which multiplier effects are significant must be carefully identified and extreme attention devoted to preparatory analysis to avoid the potentially serious consequences of casual errors. Other personal and family decisions—which may have great temporary significance—may not have multiplier effects and the decision-making process is much different, although not necessarily any simpler.

An understanding of the multiplier effect also recognizes the "*lead and lag*" effects of economic decisions. Certain economic statistics are considered to be "lead indicators"—such as the average work week, unemployment claims, plant and equipment contracts and orders, industrial materials prices, housing permits, common stock prices, etc. Other series are considered to be "coincident indicators"—such as gross national product, industrial production, personal income, retail sales, etc. A third group of statistics usually lag behind the changes in the basic economy—plant and equipment expenditures, inventories, unit labor costs. Unfortunately, economic analysis often ignores the lag effects of policy changes. For example, many people questioned the advice of the Council of Economic Advisers when it recommended an easing of monetary policy as early as December of 1969. The Council made this recommendation because it realized that changes in monetary policy require anywhere from six to twelve months to take full effect. Since the Council projected a moderate upturn in the pace of the economy during the second half of 1970, the policy change which occurred in February 1970 was a proper one. Second quarter figures reported in July indicate that the new policies are just beginning to influence total credit conditions and the Council expects the improvement to continue over the remaining months of 1970. The same understanding of "lag effects" should be applied to personal and family decisions.

Finally an understanding of economics is helpful in evaluating the *accuracy of decisions* and the possible *range of error*. Most decisions in economic affairs involve a point estimate of a future value stated in quantitative terms. For example, the Council of Economic Advisers projected a Gross National Product of \$980 to \$990 billion for calendar year 1970 in its January report to the President. But it is clear that the actual result is likely to be different than the simple averages of the two figures, or \$985 billion. Decisions of this type, which create a specific value or goal, should always include a measure of possible dispersion to avoid the appearance of unrealistic accuracy. Most people recognize that actual results usually vary from the original estimates, but the concept of predicting events within a reasonable confidence interval is a valuable aid in making decisions.