CHAPTER 2

Improving the Adaptability of the Economy

THE PAST DECADE witnessed a substantial expansion of Federal involvement in many sectors of the economy. During this period many economists devoted a good deal of attention to ascertaining the benefits and costs of that involvement. Much less attention was paid to the loss of flexibility that accompanied greater government influence over private economic decisionmaking. But as new government programs increased the number of objectives to be satisfied in the making of economic decisions, the net result was to restrict the Nation's ability to respond quickly to economic and technological change.

Limitations on flexibility are sometimes desirable. Federal requirements for the safe disposal of toxic wastes, for example, are undoubtedly a legitimate way to reduce the flexibility of chemical manufacturers and users. But programs that are excessively complex or overly stringent reduce flexibility unnecessarily. Efficiency suffers, productivity declines, and the economy becomes even less responsive to change.

As government involvement in the economy has grown, so have the overtly political aspects of economic decisions. Representative government is quite responsive to claims from individuals, groups, or regions that proposed policies will benefit them or do them harm. Since all interventions, no matter how small, have the effect of harming some and benefiting others, there has been growing pressure to "manage" these gains and losses to produce "fairness" rather than economic efficiency. Many of the recent arguments over deregulation, for example, have tended to focus less on the benefits of deregulated markets than on the income losses of the persons or industries that have been protected in the past by Federal economic regulation. Similarly, discussions of the problems of declining industries have concentrated on the immediate fate confronting the companies and workers in those industries rather than on the more diffuse benefits associated with greater national economic efficiency.

Compassion for the human problems that accompany rapid economic adjustment may often be a valid argument for policies which

slow the pace of adaptation. But excessive concern over who gets what can add rigidities to the economy and lead to the result that almost everyone gets less.

The shocks to the world economy that occurred in the 1970s—huge and abrupt increases in energy prices, unprecedented strains on the financial markets, major fluctuations in agriculture—would have tested even the most flexible and adaptable of economies. Since the adaptability of our economy was already less than ideal, these shocks hurt us more than they might have in other circumstances. Similar shocks are likely to occur in the next decade or two. The Nation therefore must prepare itself to deal with these shocks by increasing the adaptability of its economic institutions.

This will pay important dividends in the Nation's fight against inflation. As pointed out in Chapter 1, rigid economic institutions sharply limit the effectiveness of macroeconomic policies. They can turn what otherwise would be transitory pressures for higher prices into permanent price increases. Public and private barriers that prevent resources from flowing out of inefficient sectors to more efficient ones help create bottlenecks that impede efforts to promote economic growth.

The need, therefore, is for greater flexibility, not merely to permit individual sectors to respond more effectively to rapid economic change, but also to permit the economy as a whole to withstand such change without continual increases in the rate of inflation.

Because energy markets are such an important example of an area in need of added flexibility, this chapter first addresses energy problems. The second section addresses two major types of regulatory reform: eliminating obsolete regulatory structures and improving the functioning of necessary regulation. Both kinds of reform serve to eliminate unnecessary costs and reduce unjustified rigidities. The third section describes some of the far-reaching changes taking place in the financial markets and the strains these changes are creating. The fourth section describes the changed role of the agricultural sector and the corresponding need for more flexible instruments of agricultural policy. The fifth section addresses the problems of structural adjustment that are being created by changing demographic and industrial conditions, while a final section discusses the growing pressures on government to identify and aid promising industries and sectors.

ADAPTING TO ENERGY UNCERTAINTY

No sector of the economy better illustrates the increasing need for flexibility and adaptability than energy. The challenge is not only to

use less and produce more energy in the face of higher energy prices, but also to deal with the uncertainties of supply and price.

ADJUSTING TO HIGHER ENERGY PRICES

Available evidence suggests that the adjustment to higher energy prices is well underway. Between 1973 and the third quarter of 1980, real energy prices increased by 59 percent and the energy input per dollar of real gross national product (GNP) dropped by 19 percent. As energy prices rose, conservation of energy resources became increasingly attractive in economic terms. Shortages and uncertainty of supply also induced conservation, sometimes very rapidly.

While many uses of energy can be adapted relatively quickly to higher prices, others require more time. Consider the time required, for example, for the economy to feel the full effect of a 10 percent increase in the real price of gasoline. Studies suggest that the initial adjustment of consumers to such a higher price—perhaps by carpooling or taking shorter recreational trips—would reduce gasoline use by only 2 percent. But over a longer period, as consumers are able to buy more fuel-efficient vehicles, change residential locations, and the like, the fall in gasoline use may amount to perhaps 8 percent. Thus, a major portion of the savings in energy use compelled by the substantial 1979–80 increases in oil prices is still before us.

Rising prices also encourage suppliers to develop new energy sources. In the first 6 months of 1980, domestic oil producers drilled 19 percent more wells in the United States than they did during a comparable period in 1979 and opened 15 percent more oil and gas wells than they did in the entire year of 1973. For the first time in years, additions to proven natural gas reserves may have exceeded withdrawals. The development of nonconventional fuel sources—gasohol, solar energy, and so on—has also been occurring at a stepped-up pace.

ADJUSTING TO PRICE AND SUPPLY UNCERTAINTY

Perhaps the biggest challenge in energy today is to minimize the economy's vulnerability to disruptions in the supply of oil. Disruptions can vary both in size and duration. The ones experienced so far, though painful to the world's economies, have been relatively small. But much larger ones are conceivable. There is little doubt that a prolonged reduction in Middle Eastern oil supplies could severely damage the U.S. economy. A recent simulation study by the Congressional Budget Office (CBO) indicated that a yearlong cutoff of oil supplies from the Persian Gulf might reduce oil supplies available to the United States by about one-third, and output by nearly 10 percent—almost $3,000 per household. Although estimates of this sort are necessarily subject to a high degree of uncertainty, the con-

sequences of such an interruption on employment, wages, and prices clearly would be massive. Moreover, the threat of disruption, small or large, hangs like a cloud over the economy and thus affects consumer and investor expectations. It is therefore imperative that the Nation have policies to reduce its vulnerability to oil supply disruptions and to deal effectively with the consequences of any vulnerability that remains.

One simple and often-used measure of vulnerability is the level of the Nation's dependence on imported oil. In 1977 the United States imported a record average of 8.8 million barrels of crude oil and petroleum products per day. By late 1980, however, imports had fallen to about 6.5 million barrels per day. Although some of this drop was due to the recession and high inventory levels, a larger part of the decline can only be accounted for by conservation and additional domestic production.

Dependence on imported oil, however, is not equivalent to vulnerability. If imported oil came from many small geographically dispersed producers, each unlikely to cease production suddenly, even a high level of oil imports would mean little vulnerability to interruption. At the other extreme, even a zero level of oil imports would not totally protect the U.S. economy in the event of extreme instability in the world oil market. The United States could not stand by and watch the rest of the world's economies collapse without suffering irreparable economic harm itself, and would not do so, even if it were possible to isolate itself from such damage.

Thus, vulnerability is not easily measured. It is related in part to the ability of the Nation's capital stock to adjust rapidly enough to changes in the world price of oil, and in part to the fact that an oil supply interruption would result in large domestic and international transfers of wealth, large losses in output, losses of consumer and investor confidence, and a sharp surge in inflation.

The experience of past episodes of supply disruption has taught policymakers to appreciate the limited ability of governments to allocate scarce petroleum supplies and the long-run problems that result from attempts to shield consumers from the consequences of higher prices. These same episodes have also shown that such disruptions are accompanied by other impacts that private markets cannot be expected to take into account. For example, private economic decisionmakers—consumers and business firms—are unlikely or unable to factor the substantial macroeconomic effects of an oil supply disruption into their individual responses. Therefore, they will tend to take fewer preventive measures than is socially desirable. Moreover, the expectation of government intervention is also likely to affect private behavior. The experience of past disruptions may have created the

expectation of price controls or fuel allocation in the event of another disruption and thus further reduced the incentive for individual consumers or business firms to take steps to protect themselves.

Large disruptions would not only intensify these effects but pose the added risk that energy markets would be overwhelmed—at least for a while—by rapidly changing information, bottlenecks in distribution to industry, supply uncertainty, and the potentially destabilizing influence of hoarding. Thus, the proper mix of public and private responses to an oil supply disruption will depend upon a number of factors, including the magnitude and expected duration of the disruption and the steps taken in advance to reduce its impact.

Improving Adaptability

One way to reduce the economy's vulnerability to disruptions of foreign oil supplies would be to increase the short-run responsiveness of domestic production and consumption to short-term changes in price and supply. If domestic producers could easily expand supply and users could easily reduce demand, large transfers of income would not be generated by the price movements needed to balance supply and demand. Thus, the more elastic the demand and supply of energy are in the short run, the less vulnerable the economy will be to a disruption in foreign oil supplies.

Flexibility in fuel use is one way to increase short-run elasticity in demand. Today, for example, U.S. industrial facilities that burn over one million barrels of oil per day have the technical capability to substitute domestic natural gas on very short notice. The potential flexibility of the country's industrial users of energy is apparently several times this level, however. According to one source, it is possible to develop the capability to substitute coal and natural gas for an additional four million barrels per day—for a total in excess of one-fourth of present U.S. oil consumption.

Just what degree of fuel-switching capability is economically attractive is another matter. Building fuel-use adaptability into industrial facilities is costly; it requires additional capital investment and may increase operating expenses. Further, to utilize such flexibility, there must exist both sufficient supplies of other fuels and the ability to deliver them where needed.

The general dilemma is that the Nation's capital stock must be sharply modified in the face of higher energy prices, but it also must be enabled to function despite uncertainty of energy supply. As a result, the energy-using capital stock of the future will embody a compromise between greater productivity and fuel-use flexibility.

Actions can also be taken to increase the short-run elasticity of energy supply. Sizable fuel inventories, in particular, would provide a substantial degree of flexibility. At the outset of the Iran-Iraq war in

September 1980, world oil stocks were at record levels. U.S. domestic stocks, including oil not yet ashore, were some 300–400 million barrels above the minimum operating needs. In contrast, world reserves were quite low when the supply of Iranian oil was disrupted in late 1978. The shortfall associated with the 1980 interruption was comparable in size to the shortfall of 1978–79. Yet the earlier disruption resulted in a sudden and rapid escalation of world oil prices, while no such shock occurred after the 1980 disruption. The substantial size of world and domestic oil reserves played an important role in preventing panic and maintaining relative price stability.

Thus, private contingency stocks and public stocks such as the Strategic Petroleum Reserve can provide an important buffer to future disruptions. The strategic reserve is far less than adequate, however, and an increase in its size is essential to reducing our vulnerability to foreign supply disruptions. But care must be taken to assure that such a buildup, by its effect on the world oil market, not be destabilizing. Furthermore, the reserve program should not merely substitute a stockpile created at government expense for an increase in private precautionary inventories. This could be partially avoided by announcing a plan that would use the strategic reserve only in the event of a relatively large disruption and allow market forces to come into play during smaller ones.

To date, attention has focused on *oil* stockpiles. But the installation of additional industrial facilities with the flexibility to use more than one type of fuel would make stockpiles of other fuels equally useful in reducing upward pressure on world oil prices.

Flexibility in fuel use would not reduce our vulnerability, however, if constraints in the distribution network impeded the use of available alternative fuels. Propane, for example, is a frequently used alternative to natural gas, but distribution problems limited its use during natural gas curtailments in 1976 and 1977. One solution would be to maintain supplemental distribution capacity: additional handling or line-haul facilities in the case of coal, additional pipeline or surge pumping capacity in the case of natural gas, and additional wheeling and coal generating capacity in the case of electricity. Certain of these strategies, particularly the wheeling of electricity, have been utilized in the past to reduce the effects of temporary fuel curtailments.

Dealing with a Disruption

Increasing private and public stocks of the different types of fuels and improving fuel-use flexibility cannot completely eliminate the Nation's vulnerability to a major interruption in oil supply. Both international obligations and the high cost of any actions to reduce our

dependence on foreign oil mean that some degree of U.S. vulnerability to oil supply disruptions will persist for a long time to come.

Even as a theoretical question, it is hard to know the level of oil reserves that would be needed to totally insulate the United States from a supply disruption. Present plans call for a Strategic Petroleum Reserve of approximately one billion barrels, which is the equivalent of about 150 days of imports at current import levels. But the reserve is only intended to reduce our vulnerability, not to eliminate it. Let us suppose that a publicly owned stockpile of oil equivalent to a year's imports (about two billion barrels) would provide close to absolute protection from a disruption of Middle Eastern supplies. And suppose further that the acquisition of such a stockpile would not raise the world price of oil, although there can be no doubt that it would. Such a stockpile would then cost approximately $70 billion to acquire at the current price of about $35 per barrel. It would also require the expenditure of about $9 billion per year in storage and carrying costs. This is expensive insurance. Moreover, it would take several years of uninterrupted accumulation to acquire such a stockpile.

Since it is impractical to eliminate our vulnerability, it is essential to develop policies and programs that would assure fair and efficient distribution of fuel supplies during a period of substantial disruption and minimize the negative impact of such a disruption on the economy.

The Nation's current emergency plan, the authority for which expires on September 30, 1981, has two steps: a program of oil product allocation during the early stages of a major disruption, supplemented by a program of gasoline rationing if the disruption is large enough and continues long enough. The operation of this plan requires either standby price control authority or the ability to grant and implement this authority on extremely short notice.

The current plan is designed to reduce the large transfers of income from domestic energy users to domestic energy producers that would otherwise occur during a major disruption. The plan is thus especially responsive to the goal of equity. By reducing transfers of income the plan is also intended to meet the macroeconomic goals of reducing the economic drag caused by increases in oil prices and preventing temporary energy price surges from becoming permanent through formal and informal wage and price indexing.

But the plan has many deficiencies, only some of which are administrative. Although the allocation part of the program would use an existing bureaucratic structure—albeit one scheduled to expire in September 1981—the rationing part of the plan would require the creation of an untested bureaucracy that would use the postal system

to distribute rationing coupons and the banking system to account for them.

An even more important drawback is the plan's adverse impact on efficiency. Its allocation and price control aspects may already have had the effect of discouraging private parties from taking self-protective measures, since they would deny those who invest in emergency fuel stocks or fuel flexibility the benefits of that investment. The plan's intended reliance on historic patterns of fuel use in making allocations would reduce flexibility by preventing users from switching to more abundant fuels because they had not previously used those fuels in substantial quantities.

Finally, the plan emphasizes a reduction in gasoline use in the event of a disruption. Gasoline alone, however, could not absorb the brunt of a major emergency. If a complete cutoff of oil supplies from the Persian Gulf were handled by reducing the amount of oil refined into gasoline, the availability of gasoline in the United States would be reduced by over 75 percent.

Thus, the present strategy for dealing with a major disruption is a three-way compromise between the administrative problems of implementing an emergency plan, the allocation deficiencies of such a plan, and the need to deal effectively with the severe macroeconomic consequences of a major disruption.

One alternative plan would be to let uncontrolled market prices apportion available supplies. Such a plan would eliminate the problems of bureaucratic administration, but it would expose the economy to the consequences which might result from the building of fuel inventories at peak prices when the Nation's interests would be served by drawing inventories down. Such hoarding, as well as other complications, might occur because the problems of rapidly communicating market information during uncertain supply conditions would make it difficult for the market to cope with a large disruption.

Furthermore, public declarations that the market would be permitted to operate without constraint during a large disruption would be likely to lack credibility, since the market has not been permitted to act freely during previous relatively small disruptions. Private parties are likely to assume that the government will also intervene during a major disruption, and they may modify their own actions accordingly. For example, given their political visibility and small numbers, the Nation's oil producers and distributors might pass up the opportunity to maximize short-run profit and engage instead in their own form of product allocation. Thus, the choice might not be between a market solution and government allocation, but between public and private allocation plans.

While the market solution might promise the greatest degree of allocative efficiency, it would not respond to the problems associated with the transfer of tens of billions of dollars from domestic consumers to overseas producers. More importantly, a "business as usual" strategy would fail to address any of the macroeconomic consequences associated with the large and sudden transfers of income among sectors of the domestic economy—possibly amounting to hundreds of billions of dollars—that would occur when business was quite decidedly not "as usual."

Another proposal—one that attempts to deal with the macroeconomic effects—would allow the market to allocate oil supplies during a major disruption but tax the resulting windfalls reaped by domestic suppliers and rebate these new tax revenues in a way that would address the income distribution and macroeconomic problems accompanying the disruption. Although attractive in theory, such a plan would present many practical difficulties. For one thing, as already noted, the magnitude of the fiscal drag that would occur from allowing the free play of the market to determine prices might be immense, and the amount of administrative effort that would be required to capture the windfall profits on such huge sums and recycle them efficiently would be substantial. This administrative burden might even rival that of the present rationing plan.

Neither the present plan nor the tax rebate alternative would limit the large international transfers of wealth that would accompany a severe oil-supply disruption. Some economists have recommended the imposition of an import fee during a disruption to capture these windfalls. The ability of such a plan to achieve this goal is uncertain, however, since its success would depend a great deal both on precise timing and on the response of the oil-supplying nations: major overseas suppliers, having political as well as economic goals, might simply respond to such a fee by raising their prices and reducing quantities in an attempt to maintain a constant net revenue. While the success of an import tax or fee is not certain, it nonetheless merits further exploration because it is presently the only proposed method of responding directly to a transfer of income from domestic consumers to foreign producers.

Toward a Policy to Deal with Vulnerability

Developing an appropriate set of policies to deal with vulnerability to energy price and supply shocks is an immense challenge. The dilemma facing the policymaker is when to rely on private market responses and when to take the risks that accompany government-operated price control, allocation, and taxation schemes. The answer would appear to have three parts. First, use the superior allocative abilities of private markets whenever possible. The markets appear

capable of handling small- and medium-sized disruptions, such as those experienced to date. Second, take technological and stockpiling initiatives to increase short-run flexibility in energy use and supply. This will increase the size of disruptions where a market response remains appropriate. To achieve such increased energy-use flexibility, it would be beneficial to develop strategic stockpiles of fuels in addition to oil. The use of these fuels during emergencies would require investments in supplementary distribution capacity. Finally, since measures to reduce vulnerability will take time to put into place, and since the Nation will never be totally invulnerable, contingency plans must be developed to deal with disruptions so large that they might overwhelm the private market.

For both political and economic reasons, a program of allocation by price alone is unlikely to be adequate during a very large disruption. Too many problems would flow from any policy that placed a short-term "tax" amounting to as much as several thousand dollars per year on each U.S. household. Although any nonmarket mechanism would be administratively cumbersome and lack the allocative efficiencies of a pure market response, proper design could materially reduce these administrative and allocative problems. The present rationing scheme has much more precisely targeted distributional goals than most of the proposed programs of general tax rebates. Thus, differences in the value placed on achieving equity explain much of the difference in administrative complexity. A rationing plan that gave primary weight to minimizing the macroeconomic consequences of a disruption, however, would have far fewer administrative complexities. Such a plan might forgo the establishment of the hundreds of local boards that would otherwise be needed to adjudicate individual inequities.

Responding to the challenge of energy vulnerability will not be made easier by ignoring the limits and complexities of alternative policies. Thus, while the benefits of a large and well-managed Strategic Petroleum Reserve are very substantial, it is also true that a preoccupation with the reserve's potential may divert attention from the fact that the acquisition of reserves takes time, and that even substantial reserves will not eliminate vulnerability. Similarly, the allocative efficiency of the market would be superior to any government-run price control and allocation scheme, yet the market alone would not be able to cope with all of the problems associated with a major interruption. There is no doubt that the present contingency plan for gasoline rationing has major shortcomings, but it is also true that new and untested schemes for taxing and rebating windfall profits could mirror in their complexity the rationing they seek to avoid.

High energy prices and excessive dependence on imported oil supplies are two major dimensions of the energy problem. However, the uncertain timing of increases in energy prices and the uncertainty of supply are two other dimensions which must command the attention of policymakers. Higher prices alone—if known in advance with a fair degree of certainty—would pose a costly but otherwise straightforward problem of economic adjustment. Supply uncertainty, however, adds a potentially dangerous complication. The Nation's capital stock must be made more energy efficient, and the Nation must change its energy-using habits, but both of these changes must be accomplished in ways that assure the flexibility to respond to sporadic episodes of price escalation and shortage. The challenge to policymakers is to adopt energy policies which effectively respond to legitimate concerns about equity and macroeconomic problems but neither penalize private efforts to respond to energy uncertainty nor unduly rigidify economic decisionmaking.

IMPROVING REGULATORY PRACTICES

Over the past decade there has been a growing awareness that Federal regulatory activities exert substantial influence on the economy. In trying to measure this influence, some have focused on the amount of capital required to comply with Federal regulations, some have focused on the rate and direction of technological change, and still others have focused on the regulatory burden facing small business. None of these measures fully captures one of regulation's most important consequences—its tendency to reduce the ability of the economy to adjust efficiently and swiftly to change.

Regulation's tendency to produce rigidity has sometimes been directly observable. In the past, for example, the Interstate Commerce Commission severely restricted common carrier trucking firms trying to choose the most efficient routes for their trucks. The fuel-adjustment charges still permitted by State regulatory agencies have reduced the interest of electric utilities in making fuel-saving investments, while the Federal regulations that rigidly segmented both the telecommunications and financial industries helped thwart innovations that would have improved productivity.

In other situations, however, the way in which regulation reduces flexibility is less obvious but nonetheless real. Some legislation, for example, prevents regulators from considering—much less balancing—competing national goals in establishing regulatory priorities. There are Federal statutes that prescribe the specific dates at which compliance with regulations must be achieved, and some statutes even specify compliance methods. Furthermore, the compartmentaliz-

ing of regulatory functions often prevents the different agencies responsible for regulating different aspects of a given industry's performance from developing mutually consistent regulatory strategies. Once regulations are issued, they are seldom given a fresh look to see if they should be altered in the light of new knowledge or new conditions. Each of these facets of regulation has made our economic system less flexible. During the coming decade, however, the need to increase the economy's adaptability and flexibility will grow. Regulatory reform must play an important role in meeting this need.

THE ROLE OF "DEREGULATION"

In several industries—railroads, trucking, airlines, energy, telecommunications, banking—where the existing regulatory structures have largely outlived their usefulness, this Administration has achieved significant reform. Regulatory bodies like the Interstate Commerce Commission (ICC), the Civil Aeronautics Board (CAB), and the Federal Communications Commission (FCC), have acted administratively to reduce the burden of regulation where their statutes allowed them to do so, and new legislation has carried the process even further. Since the passage of the Airline Deregulation Act of 1978, Congress has also substantially deregulated common carrier trucking, interstate movers of household goods, railroads, and financial institutions. Meanwhile, the phased decontrol of natural gas and domestic crude oil prices continued to provide a powerful spur to energy conservation and to the exploration and development of new domestic sources of oil and natural gas. By the last quarter of 1980 an estimated 62 percent of all domestically produced crude oil was free of controls.

Transitions to Deregulation

As regulatory structures have been dismantled, the importance of properly designing the regulatory transition—the period during which an industry moves toward deregulation—has become more evident. Changing the "rules of the game" can cause serious dislocations in a previously regulated industry, and these dislocations must be taken into account. Users of the industry's services have made investments on the basis of the prices regulation has produced. Even if these price signals were in some sense "wrong," these investments cannot easily be undone. Similarly, workers and stockholders in the industry adapted their behavior to the realities of a regulated environment long ago, and changes in the industry's regulatory structure will affect their earnings.

Legislative debates have been dominated by the desire to cushion those with a stake in the existing system—customers, workers, and shareholders alike—from the shock of deregulation. For the most

part, the interests of these parties have been protected. Requirements for substitute service, provisions for notice of intention to suspend service, and provisions to protect the economic position of workers have generally been written into deregulation legislation. Unfortunately, much less care has been taken to make the course of deregulation sufficiently flexible to withstand the shock of sharp changes in the external environment.

The best example of this is the deregulation strategy chosen for natural gas. The decontrol schedule adopted in the Natural Gas Policy Act of 1978 will allow the price of "new" natural gas to gradually move up to the equivalent of $15 for a barrel of oil (in 1978 dollars) by 1985, a level thought at the time to be more than adequate to permit a smooth transition to uncontrolled prices. By the end of 1980, however, the world price of oil (in 1978 dollars) had already reached $28.50 per barrel. By 1985, oil prices will probably be more than double the level anticipated when the natural gas decontrol legislation was enacted. Thus, there will still be a large gap between the controlled price of "new" gas and the price of "decontrolled" gas.

There will then be an obvious temptation to delay complete decontrol in the hope of minimizing the shock that would occur if this price gap was closed in one step. But delay would be unwise. A better solution would be to reconsider the decontrol schedule soon for the purpose of making the necessary alterations in the decontrol path. The previous strategy of preventing windfall profits by ensuring a slow transition to decontrol will probably have to be abandoned in favor of a strategy which deals directly with the windfall issue.

The sharp increase in world energy prices has also placed strains on the transition toward deregulation in other industries, particularly airlines and railroads. The increase in energy prices has created the inaccurate perception that the principal promise of deregulation of the airlines—lower fares—was illusory. As discussed in last year's *Report,* however, only the productivity improvements permitted by deregulation prevented the sharp rise in energy prices from resulting in even larger increases in unit costs and thus in still higher air fares.

Higher energy prices have also made service to smaller communities by large aircraft an even less attractive financial proposition than it was earlier. However, the increased flexibility permitted by deregulation has helped to preserve air service to smaller communities by making it easier to substitute commuter carriers. Had this flexibility been unavailable, the short-run consequences would have been an enormous increase in Federal subsidies to the airlines, followed by the termination of service to many smaller communities.

With the increased fare and route flexibility permitted by deregulation, the airline industry has been weathering the most recent reces-

sion relatively well. Although substantial losses are being experienced by many carriers, most analysts consider the general condition of the industry to be sound. Most importantly, substantial investment in more fuel-efficient aircraft is continuing.

Rising energy prices have caused a different problem for railroad deregulation. Federal legislation enacted in 1976 provided the railroads with increased rate flexibility, but this initial dose of "deregulation" proved inadequate. In the meantime, the booming demand for coal prompted the railroads to raise coal-hauling rates sharply. These higher rates reflect the need to generate sufficient revenues to finance large investments in additional coal-hauling capacity, but they may also reflect some exercise of monopoly power. In any case, the rapid increase in coal-hauling rates, and the fear of even more rapid increases if the ICC controls were lifted, caused opponents of further deregulation to press for continuing ICC surveillance of coal-hauling and other bulk commodity rates. A compromise was reached that permitted a relaxation of the ICC's rate-approval authority on a prearranged schedule. The railroads have been given significant freedom to alter rates to meet shifting market conditions, while rail users have been given some protection against abuse of this freedom. The result should be better service and the substitution of coal for oil where lower total coal costs (including the cost of transportation) warrant.

Unexpectedly sharp increases in energy prices are not the only factor that has complicated regulatory transitions. Any unforeseen alteration in economic conditions can produce tensions. For example, the unprecedented swings in interest rates that occurred in 1980 placed additional strains on the already complex deregulation process of eliminating statutory differences between the various types of financial institutions.

This discussion leads to one conclusion. Inflexible transition paths are likely to encounter problems, particularly if the period preceding deregulation is stretched out to protect the economic positions of workers, shareholders, or consumers. Flexible transition paths, on the other hand, can allow industries to weather even large unanticipated shocks by permitting innovation. Transition paths should therefore be made as flexible as possible. Although the political difficulties of doing so should not be underestimated, it seems preferable to dismantle the regulatory barriers to efficient pricing relatively quickly and to take separate action to provide compensation for capital losses or to prevent windfall gains, if necessary.

EFFORTS TO IMPROVE THE PROCESS OF SOCIAL REGULATION

While much of the economic regulation placed on the statute books over the years has been eliminated or substantially reduced,

Federal regulations designed to protect the natural environment and the health and safety of both workers and consumers are necessary, and will remain so. The unaided market has not produced socially acceptable levels of pollution or worker exposure to hazardous conditions, and there is little evidence that it will.

But Federal regulation designed to protect the environment and the health and safety of both workers and consumers has not always produced the hoped-for results. The challenge to those who would reform these regulations is to design regulatory systems which intrude only to the extent required to achieve their goals and which use enforcement techniques that are appropriate, flexible, and efficient. Means must also be found to assure that the regulatory goals themselves reflect a proper balancing of national priorities. This may require new oversight methods or new regulatory tools.

Oversight Activities and Institutions

This Administration has utilized a number of methods to supervise the regulatory process. By Executive order, any executive agency proposing a major new regulation must develop an analysis of the expected economic consequences of its preferred alternative and of other possible approaches. Although this requirement only applies to a relatively small number of the regulations issued by the Federal Government each year, it has helped to upgrade the entire structure of regulatory decisionmaking. Many agencies now estimate the costs and benefits of all proposed regulations, even though these estimates are not always made public.

The regulatory analyses prepared by the agencies are subjected to independent review and comment by two institutions: the Regulatory Analysis Review Group (RARG) and the Council on Wage and Price Stability (CWPS). The RARG, an interagency body chaired by the Council of Economic Advisers, is composed principally of representatives from the executive branch agencies with regulatory responsibilities. It reviews approximately 10 regulations per year, concentrating on those that may impose especially large costs or that promise to be precedent setting. CWPS reviews approximately 50 regulations per year and is the only Executive Office unit having explicit statutory authority to review and comment on the proposed regulations of the independent regulatory agencies. This ability to provide credible estimates of the costs and benefits of proposed regulations, to suggest alternatives that might not ordinarily be suggested during the course of a rulemaking, and to serve as a source of quality control over agency analytical activities has proved crucial to effective regulatory oversight.

Whenever a RARG report has been filed, and in a small number of additional executive branch rulemakings, the Council of Economic

Advisers and other Presidential advisers have discussed the regulation with the agency prior to its issuance but after the period for public comment has ended. The purpose has been to assure the President that the agency head, in making the final decision, has considered the full range of alternatives allowed by statute and has taken cost-effectiveness criteria into account.

The task of following the development of important regulations has been made far easier by another innovation, the *Regulatory Calendar*. This list of important forthcoming regulations has become indispensable to understanding the cumulative impact of regulation on the economy. The Regulatory Council, which publishes the *Calendar,* has increased the amount of crosscutting analysis in it and is also developing industry-specific calendars. The first of these will catalog all Federal activities intended to affect the manufacture, sale, or use of automobiles. Through the use of the *Calendar,* the Council also seeks to identify overlapping regulations and tries to improve coordination between agencies where overlap is inevitable.

In addition to these regulatory oversight activities, there have been special reviews of all of the significant regulations affecting a few major industries. The most widely publicized of these were studies of the steel and auto industries conducted, respectively, by the Environmental Subcommittee of the Steel Tripartite Committee and by an interagency committee under the leadership of the Secretary of Transportation. Another is the review of important regulations affecting the nonferrous metals industry, announced by the Regulatory Council in October. Special reviews of this kind are likely to become more common in the years ahead.

Further Improvements in Regulatory Oversight Activities

The oversight practices described above have been central to this Administration's effort to develop new techniques in an area where the proper relationship between centralized oversight and agency decisionmaking is unclear and where analytical techniques require further improvement. Both the relationship and the analytical tools will be refined in the future.

Formal consideration of the anticipated costs of any regulation is an obvious necessity. Our national resources are not infinite. There must be some determination of whether the anticipated costs are within our means and our willingness to pay. Moreover, it is clearly desirable to maximize the benefits of any given level of regulation.

Although the preceding statements may seem elementary, consideration of the anticipated costs of a regulation is sometimes prohibited by statute. The Clean Air Act, for example, has recently been interpreted in court as prohibiting the Environmental Protection

Agency (EPA) from considering prospective costs in setting ambient air quality standards.

Even when consideration of costs is permitted or required by statute, agencies and courts must still decide whether this has been done in an appropriate manner. Agency procedures and court opinions on this subject vary. There is no universal test of economic feasibility and no agreed-upon "best" relationship between the economic costs of a proposed regulation and its expected benefits.

For these reasons, any sustained effort to ensure formal consideration of costs in regulatory decisions must involve the Congress, the courts, the White House, and the agencies charged with implementing regulatory statutes. Without such broad involvement, the matter will only be resolved on a case-by-case basis over many years. That slow process would provide no guarantee of uniformity, but it might well produce a regulatory paralysis arising from delay and uncertainty.

One suggested device for reconciling regulatory priorities within and between programs is the "regulatory budget." Most of its proponents envision this device as analogous to the Federal fiscal budget, with specific amounts of "permissible regulatory expenditures" assigned to each program and each agency. Some even envision a process of formal congressional authorization.

Although economists have made considerable progress in estimating the direct costs of complying with regulation, it is not likely that the techniques for a full-scale regulatory budget will exist soon. But it is feasible—and necessary—to incorporate budgetary principles, especially the establishment of priorities, into regulatory programs. This has been the aim of the Administration's regulatory oversight activities.

EFFORTS AT "SMARTER" REGULATION

With the direct encouragement of the President and the Regulatory Council, regulatory agencies have been experimenting with different ways to reduce the cost burden of regulation.

A good example is EPA's "bubble concept." This concept is based on the fact that it is often possible to reduce emissions of a given pollutant from one source far less expensively than from another source. Thus, instead of compelling each source to meet a standard, EPA figuratively places a "bubble" over an area (a large industrial plant, or, in some cases, an even larger geographic area) and lets private decisionmakers decide how to meet the standard for the area at the lowest cost. EPA initially intended to apply the concept quite narrowly, but during 1980 it gradually found ways to broaden its application. Means were found to eliminate many time-consuming procedures. The ability to develop acceptable "bubbles" for sulfur oxides

and particulates was demonstrated. Finally, and perhaps most importantly, a solution to a problem once thought to be insurmountable—namely, how to permit the concept to be applied in areas of the country not already meeting ambient air quality standards—appeared to be in sight. As the year came to an end, numerous "bubbles" were in the final stages of design and approval.

In some situations where the bubble concept is applied the cost savings will approach 60 percent. Furthermore, the concept so increases engineering flexibility that it offers the prospect of sharply reduced emissions in some cases.

Experimentation with a second regulatory innovation—the use of marketable permits—is just beginning. EPA recently suggested an overall limit on fluorocarbon production (and, hence, fluorocarbon emissions), combined with the creation of a market for buying and selling emission rights. While this approach promises substantial savings in the cost of reducing emissions, it transfers income from fluorocarbon users and producers to the government. If ways can be found to deal with the income transfer issues, and certain other technical difficulties overcome, the use of such a strategy would permit the continued use of fluorocarbons in those products that consumers value most while eliminating the need for administrative agency determinations of "essential" and "nonessential" uses. It will also stimulate the development of products that make more efficient use of these chemicals.

A third kind of effort at "smarter" regulation is the attempt to tailor regulations to the organization being regulated. The burden of compliance (especially the paperwork burden) often falls disproportionately on small businesses, some local governments, and certain nonprofit organizations. While a blanket exemption of small entities from regulation would not be feasible, it is often possible to reduce their regulatory burden. This approach was incorporated into statute by the Regulatory Flexibility Act of 1980, which requires the Federal Government to estimate the costs of new regulations for small organizations and to review its existing regulations to see whether the burden could be reduced.

Another way of improving the regulatory process is to examine existing regulations in a systematic way and eliminate those that are outmoded or unnecessary. On the basis of such a review, the Occupational Safety and Health Administration (OSHA) has eliminated nearly one thousand regulations during the past 4 years. And in September the Department of Housing and Urban Development (HUD) proposed to eliminate significant portions of its Minimum Property Standards, a large body of regulations going back almost 40 years. These regulations had been originally designed to ensure, among

other things, that federally assisted housing is safe and sanitary, and that federally guaranteed mortgages are marketable. HUD's review of the entire set of regulations was prompted by its belief that the private market now adequately performs some of these functions.

Still other alternatives to "command-and-control" regulation are possible. In choosing among alternatives, policymakers should seek the least intrusive ways of achieving regulatory goals. As a matter of course, regulators should look for techniques closely matched to the marketplace failure which was the original justification for regulatory intervention. Resort to a command-and-control solution should be the last step considered, not the first or second.

FINANCIAL MARKETS ADAPTING TO CHANGE

The financial markets have proved remarkably adaptable to changing economic conditions over the past two decades. In general, the markets' adaptations have occurred despite a slow response on the part of legislators and regulatory agencies.

In the mid-1960s there were many restrictions on depository institutions, including the following:

- limitation of the right to offer checking accounts to commercial banks;
- prohibition of interest payments on checking account balances;
- interest rate ceilings on savings accounts and other deposits in commercial banks and thrift institutions, with thrifts permitted to pay a differential of as much as three-fourths of 1 percent more on accounts of similar maturity;
- ceilings on the maximum interest rate that could be charged for loans;
- limitations on the types of assets that could be held; and
- geographic limitations on the establishment of branch offices and on the acquisition of other institutions.

These restrictions—motivated by such concerns as maintaining a sound financial system and a sufficient flow of funds for home mortgages—helped sustain the compartmentalization of depository institutions, both by function and by geographic area. Commercial banks provided "full service" banking to households and businesses, while thrift institutions were the principal repository for household savings and the dominant source of funds for residential mortgages.

This rigidly segmented system worked tolerably well from the 1940s through the mid-1960s. Market interest rates generally did not rise much above the regulatory ceilings on interest rates on deposits,

and most depository institutions were able to maintain a general degree of customer loyalty while still competing for deposit and loan business.

ADAPTING TO RISING INTEREST RATES

Since the mid-1960s, however, sharp swings in market interest rates and a general upward ratcheting of the interest rate cycle due to inflation have induced sweeping changes in the financial markets. Ceilings on deposit interest rates lagged behind rising market interest rates, creating gaps between the yields from deposits with regulated interest rates and the yields available on instruments with unregulated interest rates. Depository institutions then found it difficult to attract enough funds in regulated deposit markets to sustain their dominance in the lending markets. Moreover, member banks of the Federal Reserve System were further disadvantaged because they had to maintain a portion of their deposits as reserves in noninterest bearing balances, and the burden of these reserve requirements grew as interest rates rose.

Throughout the late 1960s and the 1970s, banks and thrifts sought to hold their competitive position by finding ways to attract funds less restricted by government regulations. For example, they developed a mechanism to sell U.S. Government securities to large corporate customers, agreeing to repurchase them later. Because this instrument (called a "repurchase agreement") was not subject to interest rate ceilings—and, for member banks, bore no reserve requirement—an institution could offer its corporate customers a competitive rate on short-term balances. By 1980, repurchase agreements outstanding at commercial banks had grown in value to roughly $30 billion. In the early 1970s some State-chartered thrift institutions in Massachusetts and New Hampshire found that they could legally offer Negotiable Order of Withdrawal (NOW) accounts, which are similar to demand deposit (checking) accounts. With NOWs, which also can earn interest, the thrifts began to compete with commercial banks for transactions balances. Meanwhile, many commercial banks gave up their membership in the Federal Reserve in order to avoid the burden of its reserve requirements.

Despite these actions, banks and thrifts still were unable to provide a fully competitive range of financial services. Nondepository institutions, less burdened by regulation, found the banking market profitable as they began issuing deposit-like instruments and offering bank-like services. Money-market mutual funds, for example, were able to offer small savers substantial liquidity while offering a yield competitive with market interest rates. Many of these funds allow "deposits" (uninsured equity interests, called shares) to be maintained in almost any amount, and most of them offer limited check-

ing services. Money-market mutual funds did not exist until 1971, but by August 1980 they had grown in value to over $80 billion.

Corporate borrowers found it cheaper to bypass their traditional lending relationships with commercial banks and increased their reliance on nonbank sources of funds like the commercial paper market, where corporations sell direct short-term liabilities. The issuance of commercial paper by nonfinancial firms grew from 4 percent of the total short-term debt of business firms in 1972 to 7 percent in 1979. Meanwhile, foreign banks, which were not burdened by Federal Reserve requirements and which had well-developed foreign sources of funds, also began moving into U.S. markets, especially business lending. By capitalizing on the expansion of international trade and by pricing their loans aggressively, they increased their share of U.S. business loans from 4 percent in 1972 to 9 percent in 1979.

U.S. banks have tried to keep their share of business loans by reducing their interest rates on loans to corporations with access to such alternative sources of funds. While the so-called prime rate is still the lowest rate offered to good customers lacking these alternatives, loans made at rates less than the prime rate are now commonplace. Nevertheless, the share of total short-term business debt held by domestic commercial banks shrank from 86 percent in 1972 to 60 percent in 1979.

Even as they sought innovative ways to bypass the regulatory structure and to maintain their markets, some depository institutions urged regulatory agencies to loosen their restrictions. The call for deregulation was less than unanimous, however, since many institutions believed that the regulatory structure still protected their profitable markets from encroachment by competitors. Nevertheless, experiments in deregulation were conducted by both Federal and State financial regulators in the 1970s (Table 11). In the early 1970s, for example, interest rate ceilings on large time deposits ($100,000 or more) were removed, in part to permit banks to meet the strong demand for bank credit that developed when the failure of the Penn Central temporarily destabilized the commercial paper market. This action provided banks and thrift institutions with new access to the open market, and by the end of 1980 they held more than $250 billion in such deposits. More recent regulatory changes have allowed banks and thrifts to compete for the funds of smaller savers by issuing 6-month money-market certificates (MMCs) and 2½-year small saver certificates (SSCs). These instruments, whose interest rate ceilings are adjusted frequently to keep pace with market interest rates, had attracted roughly $475 billion to banks and thrift institutions by the end of 1980.

TABLE 11.—*Selected financial regulatory changes, 1970–80*

Date	Change
June 1970	Regulation Q ceilings on time deposits of $100,000 or more with maturities of 30–89 days suspended.
September 1970	Federally chartered savings and loan associations permitted to make preauthorized nonnegotiable transfers from savings accounts for household-related expenditures.
June 1972	State-chartered mutual savings banks in Massachusetts began offering NOW accounts.
May 1973	Regulation Q ceilings on time deposits of $100,000 or more with maturities exceeding 90 days suspended.
January 1974	All depository institutions in Massachusetts and New Hampshire authorized by Congress to offer NOW accounts.
August 1974	Selected Federal credit unions permitted to issue credit union share drafts, check-like instruments payable through a commercial bank.
November 1974	Commercial banks permitted to offer savings accounts to State and local government units.
April 1975	Member banks authorized by the Federal Reserve to make transfers from a customer's savings account to a demand deposit account upon telephone order from the customer.
November 1975	Commercial banks authorized to offer savings accounts to businesses.
February 1976	Congress extended NOW accounts to all New England states.
May 1976	New York permitted checking accounts at State-chartered mutual savings banks and savings and loans.
June 1978	Six-month money market certificates (MMCs) introduced at banks and thrifts.
October 1978	Congress extended NOW account authority to New York State.
November 1978	Commercial banks and mutual savings banks authorized to offer automatic transfer (ATS) from a savings account to a checking account or other type of transactions account.
July 1979	A floating ceiling for time deposits at banks and thrifts with a maturity of 4 years or more established.
January 1980	The floating ceiling extended to time deposits with a maturity of 2½ years or more.
March 1980	The Depository Institutions Deregulation and Monetary Control Act of 1980 enacted.

ADAPTING TO GREATER RATE VARIABILITY

While the depository institutions were adapting to greater competition and the high interest rate environment, they also faced the problem of growing interest rate risk. Increased rate variability and the upward ratcheting of interest rates have been especially troublesome to these institutions because their liabilities have traditionally matured more quickly than their assets. Moreover, while the new types of variable-rate instruments have allowed them to keep many of their depositors, these instruments have facilitated a shift of funds from stable, low-interest savings accounts to more variable and higher interest liabilities. Consequently, as market interest rates rise, so do the rates they must pay on their liabilities. When this happens, banks and thrifts lose income because the yield on their longer-term assets does not rise commensurately.

Depository institutions have responded to this problem by shortening the maturities of their loans and by offering loans whose interest rates are frequently adjusted over the course of the loan to prevailing market rates. In 1980, for example, almost 70 percent of term business loans extended by commercial banks had floating interest rates. Similarly, banks and thrift institutions have introduced new mortgage instruments—including the variable-rate mortgage and the rollover-rate mortgage—whose rates are adjusted every year or so—in stark contrast to the traditional 30-year, fixed-rate mortgage. The thrift institutions also sought to remove the legislative restrictions on their

holdings of consumer and business loans, which have shorter maturities than mortgages.

PRESSURES FOR COMPREHENSIVE LEGISLATION

In the late 1970s there was a growing realization throughout the financial community that despite piecemeal modernization, regulations affecting depository institutions needed more sweeping reform. The regulatory structure no longer was satisfying its original objectives. Instead, it was creating inefficiencies and inequities. It even diminished the effectiveness of monetary policy as banks left the Federal Reserve System. Pressures from various sources finally resulted in a compromise bank reform bill, the Depository Institutions Deregulation and Monetary Control Act of 1980.

Under this law, interest rate ceilings on time savings deposits will be phased out over 6 years. Moreover, beginning December 31, 1980, all depository institutions were allowed to issue NOW accounts to individuals and nonprofit organizations. In addition, uniform reserve requirements will apply to all depository institutions by the end of an 8-year transition period. As a result, the burden of reserve requirements will be spread more equitably among all institutions, and the Federal Reserve's control over the deposit base will be improved. The law also expands the asset flexibility of savings and loan associations, which will now be allowed to place up to 20 percent of their assets in consumer loans, while mutual savings banks will be allowed to invest up to 5 percent of their assets in business loans. Finally, the act repealed State usury ceilings on mortgage interest rates and relaxed State usury ceilings on consumer and business loan interest rates. These ceilings had seriously depressed such lending in certain States at various times during the past decade.

THE FINANCIAL STRUCTURE OF THE 1980s: BENEFITS, RISKS, AND PUBLIC POLICY

Today's financial environment is very different from the placid conditions of two decades ago, and it is likely never to revert to that earlier state. Changes in the financial markets have had significant impacts on the behavior of depositors, borrowers, and depository institutions who—along with the financial regulatory agencies—will face further challenges in coming years.

Depositors

Higher and more volatile interest rates have increased depositor awareness of the importance of actively managing their financial assets. Moreover, the proliferation of savings alternatives has provided depositors with access to new markets where they can receive a higher average return on their savings than previously. Even if inter-

est rates return to lower levels, it is likely that the market for deposits will remain more competitive and that savers will continue to be more interest-sensitive. This should work to encourage greater saving at a time when an increase in the Nation's rate of saving and investment would be welcome.

While savers as a whole benefit from these reforms, however, not all individual savers will achieve a higher overall rate of return. In many cases the depository institutions have offset part of the increase in interest which they must pay for deposit funds by raising the prices of their checking and other financial services. Depositors who maintain high balances but use relatively few services will benefit considerably, while depositors who maintain relatively low balances and who benefited in earlier years from free or low-cost services may find these new practices to their disadvantage.

Borrowers

Many of the innovations adopted by depository institutions to make loan rates vary in accordance with changes in market rates have shifted the risk of interest rate variation to borrowers. As finance costs have risen and become more variable, financial management has assumed more prominence as a corporate management function. In the past decade, corporations have significantly improved their cash management and have increased their use of alternative sources of funding, such as commercial paper. Meanwhile, corporations have relied much more heavily on short-term debt to finance their activities and have shortened the maturities of their bond issues. Some observers have expressed concern that this tendency toward shorter maturities of liabilities could lead corporations to reduce their commitments to long-lived capital investments in plant and equipment, which would limit the Nation's ability to improve productivity. It should be recognized, however, that corporations are at least partially protected against inflation-induced changes in interest costs if borrowed funds are invested in real capital. That is, if changes in the expected rate of inflation account for fluctuations in interest rates, the expected nominal revenue from capital investment is likely to shift in the same direction as nominal borrowing costs.

If corporations want further protection from changes in interest rates, they can pay to get it. They might, for example, make use of the financial futures markets which have developed quite rapidly in recent years. The total volume of 3-month Treasury bill contracts on the financial futures markets rose from $100 billion in 1976 to over $2.7 trillion in the first 10 months of 1980.

One specific borrowing sector that has lost much of its protected status as a result of the new competitive environment is housing. The thrift institutions no longer enjoy many of the special advantages

they once had and thus cannot continue to channel funds to housing at artificially low interest rates. Although changing competitive conditions may mean a somewhat higher and more variable cost of funds for thrifts, the new regulatory environment should help to stabilize their deposit flows and hence the supply of mortgage funds. Furthermore, the Federal Government has supported the expansion of secondary mortgage markets to attract additional capital into housing. The secondary market institutions—the Federal National Mortgage Association (FNMA), the Federal Home Loan Mortgage Corporation (FHLMC), and the Government National Mortgage Association (GNMA)—have expanded the scope and volume of their activities. Market acceptance of new financial instruments like the mortgage-backed securities issued by these institutions has grown, thus cementing more firmly the link between capital markets and mortgage credit. GNMA securities alone have increased to more than $90 billion in the past 3 years. While these developments in financial markets should tend to increase the variability of mortgage interest rates, they should also tend to reduce the cyclical swings in mortgage money availability. It is too early to tell whether these changes will mean more or less cyclical variation in home sales and residential construction.

Depository Institutions

Banks and thrift institutions now operate in a much more competitive environment, and the risks associated with interest rate swings are much greater. Partially offsetting these developments are the broader range of financial instruments they can offer and their expanded lending powers.

But legal and regulatory limitations still exist that, if liberalized, would allow further adjustment to new financial conditions. Current law, for example, restricts banks and thrifts from expanding into natural market areas. A recent Administration study concluded that a liberalization of Federal restrictions on geographic expansion by commercial banks would increase banking competition in local markets and result in more and lower priced services. Some tentative steps toward the removal of the barriers to geographic expansion likely will occur in coming years. There may also be a further loosening of the asset restrictions on thrifts and commercial banks—for instance, allowing thrift institutions more leeway to make business loans or allowing both types of depository institutions broader powers to hold financial futures contracts and stocks, and to underwrite bond issues and insurance.

Even with changes like these, however, some institutions will find it difficult to adjust. Since the government shaped the financial world that existed when these institutions were founded, it now faces the

task of helping them evolve in an orderly manner. Success will depend in part on general economic conditions, and as these conditions change, the regulators must be prepared to react.

A case in point is the gradual removal in the last few years of ceilings on deposit interest rates. It was initially anticipated that relaxation of the ceilings, combined with an eventual liberalization of the types of assets that could be held, would allow thrift institutions to gradually correct imbalances in their portfolio maturities and thus limit their exposure to rising interest rates. But quick acceptance of floating-rate certificates by small savers at a time of rapidly rising interest rates has raised the interest expense of these institutions much faster than they have been able to increase the revenues on their loans. While most of the thrifts will achieve a better asset/liability balance in the long run, the current squeeze on profits resulting from rapidly rising market interest rates threatens some of them with serious financial difficulties.

One way to deal with this problem would be to subsidize endangered institutions, perhaps by buying their low-yield, long-maturity assets (mortgages) at above-market prices. This would involve a substantial budgetary outlay, however. Another option would be to permit the troubled institutions to fail outright, but this approach would risk destabilizing the financial markets and could result in significant losses to uninsured depositors and the Federal insurance organizations.

Neither of these approaches responds directly to the inefficiencies created by remaining regulatory practices which continue to compartmentalize depository institutions. Thus, a third and preferred alternative would be to remove restrictions that now prevent efficient consolidation among financial firms. This would require further deregulation to allow mergers across State lines and between different types of institutions, since these restrictions remain a major obstacle to the efficient reorganization of financial institutions. As a result of these changes, the weakest institutions would find more opportunities for mergers. While this would not solve the problems of all endangered institutions, it would allow a more stable reordering of the financial sector where appropriate while minimizing the budgetary cost and sharply reducing the risk to financial markets of policies aimed at the remaining problem.

Conclusions

During the last two decades the pace of innovation in the financial markets has been quite rapid as depositors, borrowers, and financial institutions have sought new ways to adapt to high and variable interest rates. Unfortunately, a lag in both legislation and financial regulation meant that a considerable amount of innovation was applied to

finding ways around outdated regulatory barriers. But changes in the regulatory structure in the seventies, culminating with the Depository Institutions Deregulation and Monetary Control Act of 1980, have aided greatly in making regulation compatible with the new financial environment. The challenge for financial regulatory policy during the 1980s will be to rationalize regulation even further to achieve the appropriate balance between unnecessary restraints on the market and the regulatory goals of preserving the safety and soundness of the financial system and providing the tools for an effective monetary policy.

THE ALTERED ROLE OF AGRICULTURE

For decades, U.S. agriculture was a sector with chronic excess capacity and low returns. Productivity increases that exceeded growth in demand resulted in declining real food prices for more than a quarter of a century.

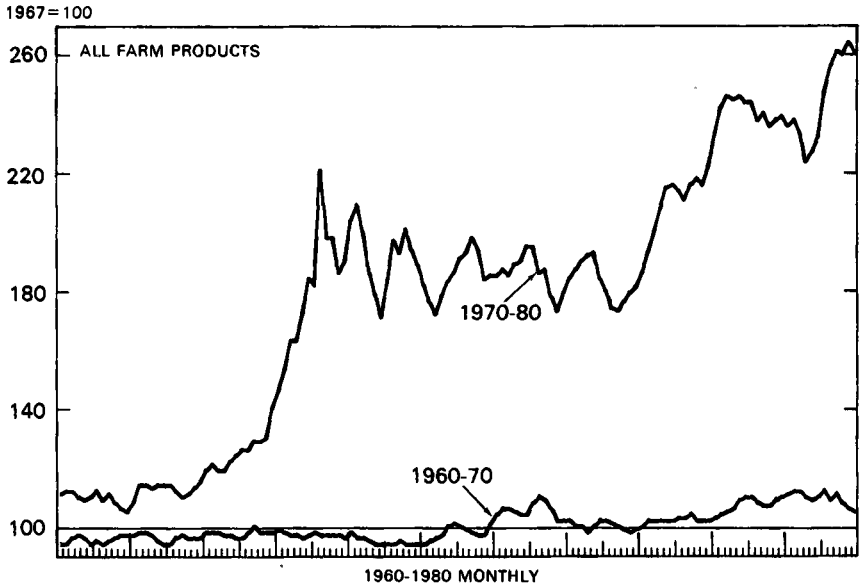
The decade of the seventies saw virtually all of these circumstances change. Farm and food prices increased and became more volatile (Charts 5 and 6). A modest shortfall in the world crop and major trade policy changes in the United States and the Soviet Union contributed to the initial price shock in 1972, and the growing worldwide demand for food helped sustain demand pressures from 1973 on. The large surpluses of grain purchased by the Federal Government in earlier years to increase farm income had been sold by 1973 and, by 1974, for the first time in more than two decades, the cropland base was nearly fully employed. It has remained that way since then. To produce more from the available land, the use of industrial inputs increased. Chemical use, for example, increased nearly 37 percent from 1970 to 1980.

The cash receipts of farmers increased dramatically after 1972, but production cost increases eroded much of the apparent gain in purchasing power. Prices paid for production inputs in 1980 were more than 2½ times their 1970 levels. The price of agricultural real estate increased an average of 13 percent per year, nearly twice the average annual inflation rate for the decade. Still, the average per capita disposable income of all farmers during the 1970s from both farm and nonfarm sources was nearly 90 percent of that earned by the nonfarm population, up sharply from the 65 percent average figure of the 1960s.

Meanwhile, the rapid exodus of labor from agriculture virtually stopped as the farm labor force stabilized at about four million persons. Not only was there a substantially smaller and more stable farm population, but there were substantially fewer farms, and a smaller

Chart 5

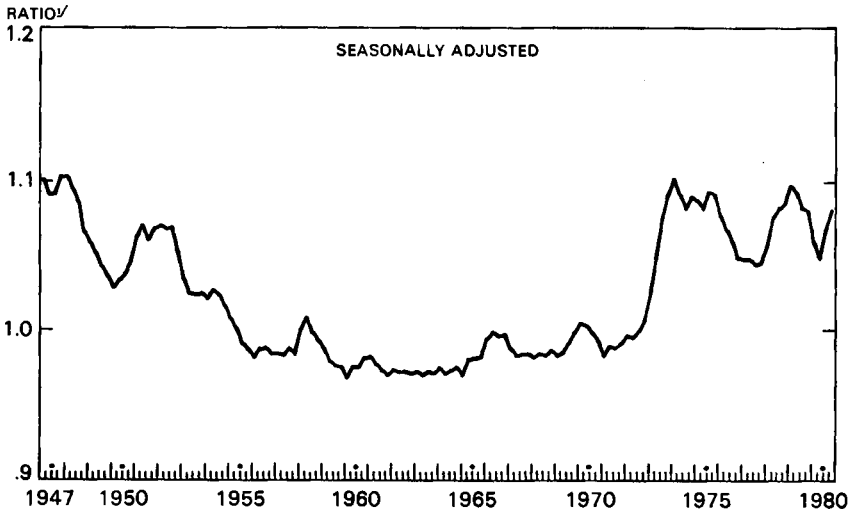
Prices Received by Farmers



SOURCE: DEPARTMENT OF AGRICULTURE.

Chart 6

Relative Food Prices



1/RATIO OF IMPLICIT PRICE DEFLATOR FOR FOOD TO IMPLICIT PRICE DEFLATOR FOR ALL PERSONAL CONSUMPTION EXPENDITURES.

SOURCE: DEPARTMENT OF COMMERCE.

proportion of the existing farms produced most of the Nation's food and fiber. In 1940, when there were more than six million farms, the largest 2 percent accounted for about 25 percent of all sales. By 1980 less than half as many large farms accounted for nearly 40 percent of all sales.

EXPANDING AGRICULTURAL EXPORTS

Perhaps the most significant change in American agriculture during the seventies, however, was the huge expansion in exports. Grain exports tripled in volume, while the dollar value of all agricultural exports increased nearly sixfold. But this growth in value and volume came with increased volatility in prices and production.

The present competitive advantage of U.S. agriculture is impressive. In the 1960s, exports represented 14 percent of total farm cash receipts; in 1980, cash receipts from exports represented nearly 30 percent of the total (Table 12). To accommodate the increase in export volume, the amount of land devoted to the production of crops for export nearly doubled. Transport systems and storage facilities have been pushed to their limits at times. Nonetheless, agricultural exports have not increased their share of total U.S. exports. Since the end of World War II, agriculture's share of total exports has remained at approximately 20 percent.

TABLE 12.—*The role of agricultural exports, 1930–80*

[Calendar years]

Period	Agricultural exports		
	Value (millions of dollars) [1]	As percent of all exports	As percent of farm cash receipts
1930–39	785	30.6	10.5
1940–49	2,294	22.5	10.7
1950–59	3,593	22.3	11.4
1960–69	5,864	21.6	13.9
1970–79	19,668	20.5	22.1
1976	22,997	20.3	24.1
1977	23,636	19.9	24.2
1978	29,384	20.8	25.4
1979	34,745	19.5	26.2
1980 [2]	40,500	19.3	29.1

[1] F.a.s. (free alongside ship) value.
[2] Estimates.

Sources: Department of Agriculture and Council of Economic Advisers.

The increased importance of exports, coupled with the disappearance of surplus grain stocks and nearly full use of the cropland base, has exposed U.S. farmers and consumers to an unaccustomed degree of instability in commodity prices. Part of this instability comes about because of unpredictable world weather, but much of it has been the result of our own policies and those of our trading partners.

Many nations have policies to shelter their economies from extreme fluctuations in commodity prices. The European Community, for example, maintains higher farm prices in member countries by varying duties on farm commodity imports and the subsidies on exports. These practices tend to make world commodity prices more variable by increasing the variability of European Community export and import levels. European food prices are therefore more stable than ours but are generally higher, with a resulting reduction in the European standard of living.

Centralized trading decisions by other grain exporters and by most of the grain-importing countries have also tended to increase the volatility of world grain prices. Canada and Australia, for example, routinely impose quantitative restrictions on grain exports when domestic price stability is threatened. Furthermore, an increasing proportion of exported grain is going to countries that do not allow the free movement of prices to allocate resources internally. The centrally planned and certain developing countries, for example, rely on the United States and other major exporters for marginal supplies, making "needed" purchases without much apparent regard for price. Taken together, the efforts by other countries to stabilize their domestic food prices and supplies have shifted the costs of increased price variability onto farmers and consumers in the United States.

Prices and income may vary at times as a result of international political considerations. The January 1980 ban on the sale of certain agricultural products to the Soviet Union originated from considerations other than the typical tug-of-war between consumer prices and farm income, namely, foreign policy considerations following the Soviet invasion of Afghanistan. The Administration was obviously aware of the potentially adverse economic effects of that sales suspension and took significant steps to minimize them.

Unpredictable actions of other countries can also impose price shocks on the United States. A unilateral reversal in agricultural policy by the Soviet Union or China or a deterioration in East/West relations would have major implications for the U.S. farm sector. Thus, the fact that our growing food trade is now affected by international political affairs is a source of added risk to private investors in the agricultural sector.

The need for stabilization mechanisms in this environment should be evident. Agricultural demand and supply are both quite inelastic in the short run. Small changes in either can lead to large changes in price. While such price movements serve the important economic purpose of allocating available supplies, they can also have disruptive consequences. Rising corn prices, for example, set in motion adjustments in the livestock sector that have implications for domestic meat

prices for years in the future, regardless of the size of succeeding corn harvests. The domestic livestock sector, in fact, is still making adjustments stemming from the very high grain prices of 1972–74.

Grain Reserves

Reserve stocks stand as the only real source of protection against inflationary rises in the price of food in market economies during periods of short supply. They also cushion farmers against declines in the prices of agricultural commodities during temporary periods of overproduction. If the flow of information and the credit markets were perfect, private agricultural stocks might be expected to provide the needed price stabilization. But the flow of information and the credit markets are not perfect. Moreover, private holders of agricultural commodities are unlikely or unable to take account of macroeconomic effects when they make decisions on whether or not to store commodities.

The program of farmer-owned grain reserves implemented by the Administration in 1977 (discussed in the 1980 *Report*) has proved to be a popular, flexible, and efficient mechanism to cushion price shocks. The Administration's initial stock objective was achieved by early 1979, when more than 11 million tons of wheat and 20 million tons of feed grains had been placed in reserve. When prices then increased because of reports of a smaller-than-expected Soviet harvest, the stocks were released. By mid-October 1979 farmers had withdrawn over 40 percent of the wheat and sorghum and more than 25 percent of the corn in the reserve. When sales to the Soviet Union were halted in early 1980, stocks flowed back into the reserve and helped keep farm prices from falling as much as they would have without it. Those stocks are now available to help offset the adverse effects of the 1980 summer drought.

Clearly, grain prices and farm income over the past 4 years would have been more volatile without such a compensating mechanism. It is also probable that export earnings were increased because more grain was available for export during periods of high prices. In any case, the availability of large reserves allowed us to retain our export markets and enhance our reputation as a reliable supplier even in periods of short world supply and high prices. Moreover, the only nonrecoverable taxpayer costs of this program have been payments for storage and interest costs on the Commodity Credit Corporation (CCC) loans extended to farmers when grain was placed in the reserve.

The Reduced Need for Subsidies

The improving economic health of the Nation's farmers suggests that subsidizing farm income is less essential today than it was in the

past. The growing importance of exports makes it more likely that the benefits of U.S. grain reserves will accrue disproportionately to foreign customers. Together, these observations suggest two things: first, that grain sold from the reserve should be priced high enough to cover not only the cost of grain production but, if possible, program costs as well; and second, that the incentives to place grain in reserve should be no greater than necessary to meet our objective of price stabilization. Present policy, including administrative procedures and legal authority, does not serve either of these objectives as well as it might.

Current law, for example, requires waiver of the interest that would normally be paid by farmers on CCC loans and taxpayer payment of the storage costs. Thus, if the grain is sold at a lower price than would be required to cover these carrying costs, export customers benefit because American taxpayers subsidize the storage of grain. But if grain from the reserve is sold at prices high enough to cover these costs, farmers receive a windfall profit that may be unnecessary to assure the accumulation of reserves that will accomplish the price stabilization objective.

By requiring farmers to pay the storage costs and the interest on the loans, the beneficiaries of the reserve (both U.S. and foreign customers) would be paying for the system's operation. Requiring farmers to pay such costs would, however, probably result in reserves too small to accomplish the price stabilization objective. To attract the desired stocks, farmers might be offered higher loans for grain entering the reserve. The most efficient way to acquire a reserve of a given size would be to require farmers to bid for the right to place grain into the reserve. Under such a plan, farmers offering to place grain in reserve at the lowest loan rates would be authorized entry.

The flexibility granted by the Agricultural Act of 1980, which authorizes higher-than-normal loan rates for grain entering the reserve, might be used to implement such a plan. Legislative changes would, however, be required to allow the farmer to pay storage and interest costs.

In addition to subsidizing the grain reserve, the Federal Government has subsidized the use of key agricultural inputs. Programs under which the Federal Government has shared with farmers the costs of soil conservation, land development, pest control, and the like, have been commonplace. As farm exports grow, so will the extent to which such subsidies transfer national wealth to export customers. To avoid unintended transfers, the resources committed to agriculture must be properly priced. This means, for example, that the price of exported grain should reflect the full costs of transporting it. Similarly, the Nation's limited natural resources, such as un-

derground water resources once thought virtually unlimited, should now be priced to more appropriately reflect their limited availability.

FUTURE CAUSES OF RISING FOOD PRICES

When food prices soared upward in 1973, many economists saw it as a temporary deviation from the longer-term trend, and the apparent return of surplus production in 1976–77 helped support this notion. But food prices did not fall to their earlier trend line (Chart 6). While exhibiting the same increase in variability as commodity prices, food prices remained high relative to other prices throughout the 1970s, and additional price increases are likely for at least the first half of the 1980s.

The Rising Demand for Output

Projected increases in exports and in the use of grain domestically for animal feed indicate sustained upward pressure on commodity prices for the next several years. Other economic forces will place still more pressure on agricultural resources, particularly cropland. Rising energy prices, for example, are increasing the demand for natural fibers, primarily cotton. High sugar prices and the expanding use of sugarcane for ethanol production in Latin America are expected to double the demand in the United States for corn as a sweetener by 1985.

But perhaps most important is current energy policy which encourages the production of alcohol fuels from corn. This policy implies the need for an additional 370 million bushels of corn and a 5 percent increase in corn cropland by the end of 1982. The ethanol produced from the corn would replace about 60,000 barrels of oil per day—about 1 percent of U.S. oil imports. Other things being equal, such an increase in demand would increase the season average price of corn about 10 percent. The high cost of producing ethanol and the higher corn price, even when offset by the value of the ethanol by-products and an increase in export earnings, would mean that the Nation was paying nearly twice the present world price for each barrel of foreign oil displaced. The benefits of the gasohol program may be substantial and difficult to quantify, but its costs are large and its pressures on cropland significant. Furthermore, given the incentives already authorized, the amount of corn required for gasohol could more than double by 1985.

Pressures on Farm Input Use

By itself, a growing demand for agricultural products would not necessarily mean rising real prices. Advances in crop yield and other productivity gains throughout much of the postwar period made it possible to increase production in line with steadily growing demand without bringing high-cost, marginal resources into use. But this is

unlikely to happen in the future in part because of energy. In 1975, when data first became available, energy-intensive inputs (excluding fertilizer) accounted for 23 percent of the variable cost of producing an acre of corn. Those same inputs accounted for 31 percent of the variable cost in 1980. Higher real prices for these inputs will be a disincentive to their use and intensify the pressure to use additional land and water resources. These resources are also more limited. In 1972, for example, more than 16 percent of the cropland base was being withheld from production by government policies. None is being withheld today. To raise production further, land will have to be diverted from other uses and developed for crop production. The cost of doing so will be reflected in higher agricultural prices.

Changes in policy, however, could help to ameliorate future increases in food prices. Certain land-use patterns remain fixed by acreage allotments. Fruit and vegetable growers sometimes restrict output or otherwise control marketing to enhance prices and then seek restrictive trade policies to protect those higher prices. Certain regulatory procedures now impose economic penalties on the use of technologies that would raise productivity in the food system. Such policies deny both producers and consumers the benefits of technological change. Finally, certain price support decisions continue to be statutorily dependent on movements in an outdated parity index that has little relation to product-specific costs of production. The dairy price support program is perhaps the best known example here. Such policies enhance the economic position of some farmers, while they perpetuate existing—but not necessarily efficient—patterns of resource use. Such inefficiency is particularly costly in a period of relative resource scarcity and limits agriculture's potential contribution to economic growth.

POLICY DIRECTIONS FOR THE 1980s

Significant progress has been made over the past 30 years in adjusting U.S. agricultural policies to a changing world. More importance has been placed on the allocative function that can be performed by prices, and there is significantly less direct government interference with producer decisionmaking.

This Administration's farm policies have contributed to the evolutionary process. The implementation of a farmer-owned grain reserve program stands out because of its flexibility and its success in moderating price fluctuations stemming from changes in production and consumption levels. Additionally, the recent formation of a government-owned food reserve increases the likelihood that food will be available to foreign nations during emergency situations, even when world prices are high and commercial supplies are limited. The 1980 passage of a statute permitting the creation of a partially subsidized,

comprehensive, actuarial crop insurance program means that there will be a more equitable sharing of natural disaster risk between farmers and taxpayers. Eventually this new program—which expands the private sector's role in insuring farmers against such risks—will replace the more limited free insurance that is now provided for certain farmers through the fully subsidized disaster payments program.

Future changes in agricultural policy must build on this foundation. In particular, attention must be given to the use of natural resources. Past agricultural policies have treated land and water as gifts of nature. The need for pricing them in ways that more appropriately reflect their true social value will intensify. Specific programs must be developed for this purpose; conservation of soil and pricing of other natural resources can no longer simply be by-products of programs to enhance farm income.

Taken together, these policy issues point to a broader reliance on market forces, but the critical importance of food to national security will dictate a continued role for government in determining agricultural policy. Finding new and more flexible ways to use resources more efficiently while guarding against price volatility will be the principal farm policy challenge of the 1980s.

TRENDS IN INDUSTRIAL AND LABOR MARKETS

The preceding sections described developments in energy, regulation, the financial markets, and agriculture that have put severe pressure on the economy's adaptive capabilities. Each case illustrated the need for policies that facilitate adaptation to future as well as current developments. These four areas are not unique, however. Throughout the economy, deep-seated trends are increasing the need for greater adaptability.

INDUSTRIAL CHANGE

One such trend is the elimination of previous competitive advantages in some sectors and the creation of new ones in others. In the case of automobiles, for example, competition on the basis of technological advances and fuel economy is replacing competition based on style and performance. Vehicles manufactured in large volume according to stringent quality standards and utilizing the latest technology are replacing vehicles whose style changed annually but whose technology evolved more slowly. The emergence of the so-called "world car," with its international sources of key components, is evidence that this remarkable change has not been limited to the United States.

Nor are these kinds of competitive pressures new. Similar pressures over the years have occurred in textiles, apparel, and footwear.

In each of these industries today, the profitable U.S. producers compete in ways very different from their predecessors, whether by manufacturing specialty fabrics, blue jeans, or canvas shoes.

What is new, however, are the widespread pressures for substantial adaptation due to recent changes in energy and capital markets. These pressures are also occurring at a time when the economy is growing slowly. In the past, growth has often served as a "shock absorber" to cushion change, but the slow pace of growth has made the problems of readjustment more painful. Furthermore, some of the industries experiencing intense change are large and highly visible regional employers. There is simply no easy way to absorb the closing of an integrated steel facility or an automobile plant that dominates its local labor market. Lastly, these pressures for job protection are occurring at a time when the changing composition of the labor force may be tending to reduce mobility.

CHANGING LABOR FORCE COMPOSITION

During the past decade, the number of people with jobs grew at record rates, and the average age and experience of workers fell. During the coming decade, the growth of the labor force will slow considerably, and the average worker will be older and more experienced.

Both of these changes result from two related demographic phenomena: the maturing of the baby-boom generation and the rise in female labor force participation rates. From the end of World War II until the beginning of the 1960s, the Nation experienced a sharp rise in the number of births which temporarily reversed the long-term decline in birth rates. This generation began entering the labor market in the 1960s and the influx of new workers continued during the 1970s. The percentage of the population aged 16 to 24 rose from 12.1 percent in 1960 to 15.8 percent in 1970 and 17.0 percent in 1979.

Female participation rates increased gradually during the baby-boom years. An even greater increase in the number of women workers has occurred in more recent years. The rate of participation in the labor force increased from 34 percent to 39 percent between 1950 and 1965; by 1980, more than 51 percent of the country's adult women were in the labor market.

The maturing of the baby-boom generation and the sharp rise in the number of working women meant that U.S. labor markets had to absorb record numbers of new and inexperienced workers. During the 1970s the civilian labor force increased at an average annual rate of 2.5 percent, compared to 1.1 percent during the 1950s and 1.7 percent during the 1960s. The influx of young workers, combined with an increase in the number of older workers retiring early, pro-

duced a decline in the median age of the labor force from 39 years in 1965 to 34 years in 1980.

As discussed in Chapter 1, the economy did remarkably well in providing jobs for these new workers. In fact, the unemployment rates for white youths and adult women have not increased relative to those of prime-age men. Unfortunately this success was not evenly spread across demographic groups. The high unemployment rate for young blacks, which has deteriorated considerably and is currently well above 30 percent, indicates serious shortcomings in labor markets or other social institutions. This unemployment problem has persisted in spite of substantial Federal efforts to improve the quality of primary and secondary education for minorities, to expand post-secondary training programs, and to provide on-the-job training in public sector jobs.

During the next decade the number of people reaching adulthood will continue to be larger than the number reaching retirement age, but the generation entering the work force will be considerably smaller than the cohort which began work in the 1960s and 1970s. Even if female labor force participation rates continue their rapid rise, the Bureau of Labor Statistics (BLS) projects that labor force growth will average only 1.3 percent per year during the 1980s.

The decrease in entrants into the labor force during the next decade should have several effects. First, the increasing average age of the labor force will tend to lower the aggregate unemployment rate. The rate was higher during the 1970s at least in part because the transition from school or home to a job takes time; young people and women entering the labor market may be counted as unemployed during that search period. In addition, as they try out different career possibilities, new workers tend to change jobs more often than experienced workers, often with spells of unemployment between jobs.

The transition to an older labor force will probably lead to some increase in productivity as the average level of experience rises. One estimate suggests that shifts in the age-sex composition toward groups with below-average experience reduced productivity growth by 0.4 percentage point per year between 1966 and 1973. Since then, the reduction has been about 0.2 percentage point per year. During the 1980s, changes in the age-sex ratio should raise productivity by 0.1 percentage point annually.

Demographic changes will also tend to raise productivity by making it easier to increase the capital-labor ratio. Even if the capital stock only grows at past rates during the 1980s, the amount of capital per worker will grow as the rate of growth in the number of workers falls. Moreover, the relative growth in the number of middle-aged

members of the population, who typically have higher rates of saving than either the young or the elderly, should increase the Nation's saving rate and facilitate growth in the capital stock.

But a third effect of the rising average age and experience of the labor force will be a decrease in flexibility. Shifts in the demand for labor by region, industry, and occupation are most easily met when young workers just entering adulthood are available to move to areas where the growing sectors of the economy are located. These younger workers are not tied to the skills gained from long experience in one job, they generally do not own homes, and their ties to communities are weaker. Further, young workers normally have more years over which to recoup the costs of acquiring new skills or moving to a new community.

Older experienced workers and individuals in two-earner families are often much less flexible in changing jobs, industries, occupations, or communities. If there is a decline in the demand for the type of labor they supply, they are less able and willing than younger workers to move or to abandon old skills or to learn new ones. Firms are less interested in absorbing the costs of training older workers for new careers. Therefore, although older workers are less likely to lose their jobs, if their jobs do disappear they are likely to have a harder time than young workers in finding a new job and are likely to be unemployed for a longer time. Thus, although total unemployment rates will tend to fall as the labor force ages, the percentage of workers unemployed for extended periods may rise.

Although U.S. labor markets may become less flexible in the future, we currently appear to be able to find new jobs for displaced workers more rapidly than several major European economies. The more rapid the adjustment to employment shocks, the lower will be the percentage of workers unemployed for extended periods. Table 13 presents the long-term unemployed as a percentage of the total labor force for the United States, Germany, France, and the United Kingdom. Although these percentages undoubtedly reflect international differences in definitions of employment and in stages of the business cycle, they do suggest that American workers suffer less long-term unemployment than their European counterparts.

However, the adjustment to new patterns of labor demand in the economy of the 1980s may be more difficult than it has been in the past, and government assistance may be necessary to soften the shocks of structural change while promoting flexibility. Such programs can be designed to move workers to jobs or jobs to workers. The former include retraining programs for the unemployed as well as relocation subsidies to encourage them to move from depressed areas to communities with excess demand for labor. The latter in-

clude government investments in local infrastructure and investment subsidies to encourage expanding firms to replace contracting ones. Whatever combination of policies is chosen, efforts to cushion the shocks of adjustment should not themselves discourage adaptation.

TABLE 13.—*Long-term unemployment as percent of labor force, 1973–80*

Year	United States	Germany	France	United Kingdom
1973	0.89	0.43	1.57	1.22
1974	1.00	0.94	1.66	1.11
1975	2.63	2.38	2.64	1.80
1976	2.41	2.40	3.06	2.73
1977	1.92	2.34	3.47	3.25
1978	1.34	2.25	3.72	3.40
1979	1.14	1.92	4.42	3.35
1980	1.71	(1)	(1)	(1)

[1] Not available.

Note.—Long-term unemployment is defined as 15 weeks or longer for the United States, 14 weeks for the United Kingdom, and 3 months for France and Germany.

Source: Organization for Economic Cooperation and Development.

THE DILEMMA OF INDUSTRIAL POLICY

Chapter 1 of this *Report* and the preceding sections of this chapter describe an economy facing increased pressure to adjust to changing economic circumstances in a period of restrained growth. The increase in Federal involvement in areas previously considered to be the domain of private decisionmakers has also been detailed. The recognition that increased adjustment is needed and that the resources to smooth the path of this adjustment are limited, has led some to propose an explicit "industrial policy" to guide the broad collection of Federal activities affecting individual industries and sectors. These proposals, and the conflicting pressures they have created, illustrate the dilemma stated at the beginning of this chapter: Increased Federal involvement in the economy carries with it both the potential to improve and the threat of reducing the economy's efficiency and adaptability.

The steel industry, for example, faces a major financial burden in complying with clean air and water mandates. It is also beset with major problems of economic adjustment because of vigorous foreign competition, technological evolution, changes in labor and raw material costs, and geographic and compositional shifts in the demand for steel. Similarly complex circumstances have been developing in the auto sector for several years. In 1980 the combination of recession and sharply higher gasoline prices focused public attention on the domestic industry's longer term problems of coping with foreign competition, improving productivity, and retooling to meet the

changed needs of customers. Rubber is a third large U.S. industry that has been confronted by intense structural problems.

The realization that many of the dislocations brought about by new conditions have been disproportionately concentrated in certain regions of the country, and growing recognition of the scale of investment in our industrial infrastructure necessary to meet all our social and economic goals, led to a broad-scale Federal review of policies for promoting and channeling investment, encouraging innovation, and dealing with labor-market disruptions. The President's Economic Revitalization Program, described in Chapter 3 of this *Report,* emerged from this review.

Two central issues arose in these discussions: first, the extent to which the Federal Government ought to be involved in determining the pace of growth and decline in individual industries and regions—in other words, the extent to which the government ought to be involved in "picking winners" or supporting older industries that are faced with major adjustments; second, the extent to which the government ought to supplant the private sector in allocating capital if that is required by the objectives of industrial policy.

The review concluded that either type of Federal intervention would go beyond the legitimate needs for balance, consistency, and flexibility in Federal actions affecting individual industrial sectors.

For one thing, it is presumptuous to assume that successful identification of winning and losing industrial sectors is possible. Moreover, even within so-called "losing" sectors, individual firms often outperform many of the firms in "winning" sectors. As an example, one need only compare the outstanding performance of many "minimill" operators in the beleaguered steel industry to that of many less profitable firms in the highly touted semiconductor industry.

Attempts to pick winners or reinvigorate declining industries introduce considerations into strategic industrial decisions that, while not now absent, are certainly less directly felt. Greater government involvement in the detailed workings of the economy has already increased the political aspect of economic decisionmaking and led to constant pressures for the Federal Government to aid firms, regions, and industries. Establishment of an explicit industrial policy, together with the authorities for implementing it, would intensify these trends.

The consequences to the economy of reductions in efficiency and flexibility that often accompany government intervention have already been detailed in this chapter. But at least three special dangers would be associated with the development of an overt government role in picking winners:

First, a successful policy of identifying and supporting promising sectors implies a willingness on the part of the government to let

some of the firms in the chosen sectors fail. A portfolio of venture capital investments designed to pick only winners typically ends up with a few large winners and many losers. However, the government's necessary sensitivity to income losses, intensified by the fact that it would bear a special responsibility for a chosen sector, makes it difficult, if not impossible, to tolerate such a portfolio. The more likely outcome—one frequently observed in other countries—would be a reluctance to abandon individual firms that fail. This could more than offset any gains achieved by the successful few among the chosen firms.

Second, there could be a tendency to implement a strategy of picking winners by excessive reliance upon policies where the government has broader discretion (e.g., trade policies) rather than designing policies specific to the problem at hand. The resulting use of easily available, but not necessarily efficient, policy instruments would create an unbalanced response and introduce additional distortions and rigidities into the economy. Adding to this tendency would be the policymaker's inevitable recognition that a policy tool designed for one purpose can often be used for another. For example, the economic prospects of an industry could be indirectly manipulated by changes in the stringency of government regulation. Such changes, however, when motivated by objectives of industrial policy, might be counterproductive to achieving the purpose for which the regulation was intended.

Third, to avoid "wasteful duplication," the government would be likely to centralize the process of picking winners. Such centralization would forgo the advantages of risk-diversification that come from decentralized decisionmaking and would further heighten the pressures to protect losers among the chosen sectors.

Similar arguments would apply to policies aimed at manipulating the normal workings of capital markets. While prudence argues strongly for policies which remove impediments to the efficient allocation of capital, prudence also suggests that a centralization of explicit allocation authority would run counter to the overriding need for flexibility in the present economic environment.

PREFERRED POLICY APPROACHES

While it is inappropriate for the government to utilize its policy instruments to support winners and discourage losers or to centralize the allocation of capital resources, government policies can be used in appropriate ways to make a difference in the economy at large and in individual industries. Tax policies, for example, can influence the level of investment and risk-taking in the economy as a whole without excessive intrusion into the affairs of individual firms or industries. Although regulatory policies, by their very nature, constitute greater

involvement in the operation of individual firms or individual sectors, they too can be designed to attain their goals with minimal intrusion and can take into account the circumstances of individual industries.

Trade policies also shape decisions in individual markets. Without choosing winners and losers, it is still possible for the government to reduce constraints to free international transactions, to police these transactions for violations of national law and international trade agreements, and to screen individual cases carefully to afford relief from unfair import competition.

Agricultural policy decisions can be designed to reduce instability in that sector and to ensure that those receiving the benefits of such policies also pay for the burden such policies impose. Similarly, the continued deregulation of financial institutions can assure the aggressive pursuit of efficiency and innovation in that sector. Labor market policies can try to help workers in declining regions or industries adapt more rapidly and with less human suffering to changing conditions.

In sum, recognition that the numerous policies of the Federal Government exert a substantial influence on individual sectors of the economy leads logically to a search for coherence in policy. The pursuit of such coherence is both justified and desirable when it involves the thoughtful coordination of policies in areas where government intervention is necessary. The danger lies in the unwise manipulation of policy variables designed for one set of purposes to attain goals which can be better achieved by the private market.