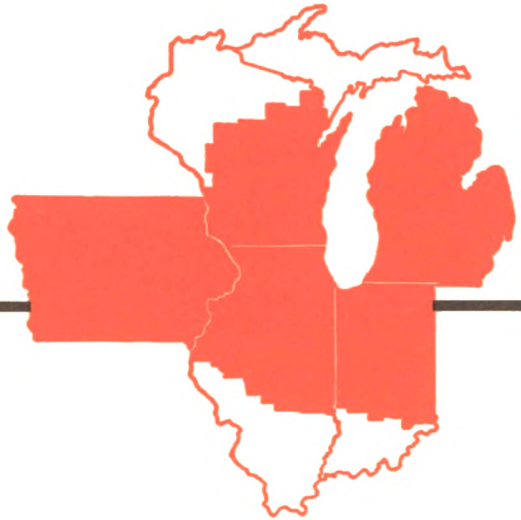
A review by the **Federal Reserve Bank of Chicago**

Business Conditions



1970 October

Contents

Bankers liberation—

Equal opportunity in the money market

Statement by Mr. Robert P. Mayo, President of the Federal Reserve Bank of Chicago, before the Iowa Bankers Association on October 21, 1970

Liberation movements continue to be news. So I thought that I would be right in style if I talked with you today about "bankers lib."

As you know, the central theme for liberation groups is that there are inequities in our economic system that require adjustment. Well, bankers have been concerned about inequities too and you've certainly let me know that. Let me hasten to add that I hope that you continue to communicate with me by telephone, letter, or visit. Maybe that way I can discourage you from any urges you may have to picket or parade in front of the Fed.

A fairly wide range of problems have been suggested to me by bankers—problems from which they would like liberation. They all require attention and concern, but today I would like to talk about a problem area that has been of particular interest to most bankers in Iowa. How do rural banks compete effectively with their large city cousins? How can they achieve equal opportunity in the money markets? Are they discriminated against, forced to meet local demands with locally generated funds while the giants in Chicago, New York, and on the West Coast pick up funds all over the world?

Now, I may use the term rural or country banks, but I am certain that you all recognize these complaints as coming from all sizes of banks. The smaller institutions argue that banks in the larger cities of the state have the advantage, and these, in turn, raise the same concerns about their competitive relationship with still larger counterparts in the major metropolitan areas.

I would be the first to admit that this concern about equal opportunity has not attracted many followers in the last few years. After all, even very small banks have discovered the federal funds market. The income from such funds has been as high or higher than the return on credits to local customers.

But can you turn these flows into a two-way street, coming in as well as going out? I submit that, as pressures ease in the money market, the chorus of voices representing concerns with access to financial markets will increase. The crescendo of concern is not likely to reach the volume of some of our "lib" groups, but it will be there nevertheless. And I think that it should be listened to.

What I would like to do today is to look at this problem with you. I would like to see if we can distinguish between complaints about real inequities that require adjustments, and what may simply be disadvantages that reflect a failure to keep up with the times or to use efficiently the facilities available.

These two sources of difficulties require different types of solutions or programs. The former may require some changes in our financial mechanism. The latter, however, may require essentially an educational effort or changes on the part of the banks themselves. Public agencies have a responsibility for providing a competitive environment that blocks the concentration of economic power. But neither regulation nor subsidy that preserves inefficient operations, and therefore misallocates resources, can be justified in the public interest.

Let us, therefore, take a look at what has been happening in Iowa and to Iowa banks. What are the implications for the existing structure of banking and what is the extent to which banks can take advantage of existing financial market facilities? Then perhaps we can suggest areas in which assistance is needed, and what kind of assistance is likely to be helpful while preserving the purifying discipline of the market place.

First, a quick look at the Iowa economy. After all, banks—like all businesses—have problems unique to their environment.

You are operating in a state whose total population, according to preliminary Bureau of Census estimates, has remained very stable between 1960 and 1970, growing only about 1.2 percent. However, nowhere is the trend toward urbanization more evident than in Iowa:

- Seventy-nine of Iowa's 99 counties lost population;
- Eighteen of the 20 counties gaining population either had a city of at least 25,000 population or were adjacent to a county with a city of at least 25,000 in population;
- Only two counties showing population gains were some distance from important urban centers.

Iowa manufacturing also has undergone significant changes. The rising productivity of Iowa manufacturing workers compares favorably with the nation as a whole. In 1958, the average Iowa worker produced just over $10,000 of manufactured goods; in 1967, he was producing $15,500 worth of goods. The number of manufacturing establishments has declined but the average size of plant has increased by 35 percent.

Food processing, nonelectrical machinery, and electrical machinery still account for more than half of all manufacturing employment in the state. Food processing has not shown noticeable growth, but the two machinery producing sectors have grown rapidly. Thus, while agriculture and agriculture-related industry play an important role in Iowa's economy, and will continue to be important, other industries are catching up.

Iowa is seemingly destined to become progressively urbanized and industrialized, and this trend will undoubtedly stimulate banking markets in urban centers. But rising prosperity throughout the state will support good markets elsewhere as well. The developments that have changed Iowa's economy over the past decade will continue to do so in the Seventies. These changes may appear to threaten the viability of smaller country banks. But they also generate new techniques for solving old problems and new opportunities for diversification and growth.

Let's take a look at one of those old problems—lending to agriculture. What assistance should or can be made available?

The predominant lending activity of Iowa banks is to agriculture. Farm loans account for 50 percent or more of total loans in over three-fifths of all the banks in the state. In nearly 90 percent of the banks, they make up at least 20 percent of the loan portfolio.

Loans have increased at a much faster

pace than deposits at rural banks in recent years, a divergence made possible by the low ratio of loans to deposits in earlier years. Expansion of bank lending by a relative shift from security investments to loans obviously cannot be sustained indefinitely. A large proportion of banks may have reached the point where further reductions in liquidity do not appear feasible or prudent, given present institutional arrangements. More than a fourth of the Iowa banks have loan-to-deposit ratios in excess of 65 percent—two-fifths have ratios in excess of 60 percent.

Also, many rural banks, because of their capital structure, have had difficulty in providing adequate credit service for their larger individual borrowers. Although most Iowa banks have boosted their capital accounts in recent years, there are still about 300 banks —or almost half the banks in the state—with capitalization under $200,000.

Projections of farm credit demands—both aggregate and individual borrowers—indicate substantial growth. This suggests that many more banks will find it difficult to supply from their own resources the same share of farm credit growth that they have provided in recent years. Generally, the banking system can employ various mechanisms and devices to obtain outside sources of funds. However, in many rural areas, and for many small banks, these mechanisms are unavailable or inadequate. Branch and group banking are prohibited in many areas; correspondent banks have not provided a sufficient volume of funds; discounting at Federal Intermediate Credit Banks has been negligible; liability management has been fairly difficult, and secondary markets for loans are virtually nonexistent.

Recognizing these problems, the Board of Governors of the Federal Reserve System last spring established a special committee within the system to investigate agricultural credit problems in capital deficit areas and to propose possibilities for their amelioration through improvements in marketability of rural bank paper. The recommendations of this committee are expected in mid-1971.

But this is only one channel through which country banks may achieve "equal opportunity" with their city counterparts. It is not the first. It will not be the last.

Real progress stemming from Federal Reserve efforts to improve markets, however, can only be made if the banks respond. Banks must make effective use of innovations and be willing to adjust their services to the changes in demand for them. If they do, it will be healthy both for the public and the banks.

In a nutshell, continued viability of the rural banks will depend on (1) their capacity to recognize changing demands for their services, and (2) their ability to turn the benefits of technology to the advantage of their customers and, therefore, themselves. The latter entails, of course, access to money markets and information about them. Your city correspondents can help you here, and I encourage you to use their facilities.

Trends in these directions have already begun. As the nation has shrunk in terms of communications, and as the inexorable pressure of rising costs has forced economies of scale in business—especially in agriculture—a good many small banks have diversified their lending, and have found ways to participate in either national or regional money markets so as to better synchronize their sources and uses of funds.

No longer need the local bank in the heartland of America be a specialized agricultural lender, with all the problems—with respect to both amounts and timing—of matching locally-generated funds with local demands.

Long-established patterns change slowly, but evidence on the distribution of loans over the past decade demonstrates that flexibility has increased. Iowa banks, both large and small, while still holding a greater proportion of their assets in farm loans than banks in any other state in this Federal Reserve district, have reduced that share. The difference is reflected in higher credits to commerce, industry, and consumers.

Another significant development of the last decade has been the growing participation of small banks in the national money market—partly direct and partly through correspondents. The most important access route has been through the federal funds market. Through this facility smaller banks are able not only to put funds to work at good returns but, at the same time, to maintain a much higher degree of liquidity than their overall loan-deposit relationships might imply. At last count, our records show that about two-thirds of all member banks in this district participate in the federal funds market—at least occasionally. The participation ratio is least among the smallest banks, as might be expected. But the fact that even a few banks with deposits less than $5 million do take advantage of this facility suggests that the potential is there for many others, too.

The federal funds market is just one example of how ability to tap the money market can provide a means of liberating the small bank from the constraints of a small and undiversified local market for its services. And it is obvious that small banks have a heavy stake in the developments of other market facilities—such as secondary markets in locally generated credit instruments—that will free them further from the rigidities of narrow markets and concentrations in credits to borrowers with similar characteristics.

But while a pipeline to the money market may provide access to participation in the good life, it cannot provide real liberation if it serves either to divert funds away from the legitimate needs of the local community or, contrariwise, to absorb capital that would yield higher real returns elsewhere.

It is a fact that the vast majority of smaller banks that participated in the federal funds market in the past two years have used it only as an outlet for funds, sometimes in significant amounts relative to their size. Perhaps these have been banks in "surplus" areas—that is, where funds generated through personal, business, or public deposits have exceeded local credit needs. But to a large extent they represent channeling of funds to the customers of the larger banks that are the purchasers. At the money market rate levels of the past two years, the income from such use of funds may have been as high or higher than the return on credits to local customers.

Whether some of these funds found their way back to rural credit deficit areas, it is impossible to say. But to do the job of channeling flows of credit to their optimum uses, market facilities must provide a two-way street. There is little evidence that the federal funds market has been a significant source of funds to rural banks generally.

I would not want these remarks to be construed as advocating borrowing short and lending long. Obviously the short-term money market cannot solve all the problems of handling today's agricultural credit needs. But greater access to it could perhaps improve flexibility.

For most of the smaller banks, the direct link to the money market is through correspondent banks, but the purchase of Fed funds is only one of the ever-widening services they offer. Very little information is available about the volume of longer term credit flowing from city correspondents to country

banks. What evidence there is suggests that the volume is much less than might be expected, and the credit is often quite costly.

At the same time, statements from correspondents and the favorable experience of some small banks suggest that customer banks who aggressively seek funds from this source find it, provided they have a record of good management and a sound portfolio. The major complaint that we hear is that many small banks don't keep their houses well enough in order, and can't provide enough information on credits to allow the correspondents to act in timely fashion. And, to repeat another point just made, officers in many small banks just don't pick up their phones and seek out the services that may be available to them.

But it is also obvious that country banks would be in better position to demand services from correspondents if there were more direct links between credit surplus and credit deficit areas—markets oriented to the kinds of credit instruments generated in rural areas. Since these are typically obligations of people known only locally, some kind of insurance undoubtedly would be required. An insurance system, moreover, would be far more consistent with the market's ability to allocate resources impersonally and efficiently than any system which could possibly emerge from subsidized or other artificial efforts to equate the odds between small and large banks in their access to funds.

Small banks will have to depend on large banks, or grow enough by themselves to supply the wider services the public increasingly demands. In the past, rural banks have been more insulated from cyclical swings in both monetary policy and credit demands. But as market areas enlarge, via technology, this insulation will diminish. And, more immediately, as pressures ease in the money market, the easy returns from Fed funds sales will be less reliable as a steady source of earnings. Therefore, it would be wise to give first priority to local credit demands.

As regulators, we must not underestimate problems of the small bank, but neither can we justify subsidizing obsolescence, and certainly our judgment is not adequate to substitute for the market's function. The entire history of federal efforts to solve the farm problem serves as a warning against laying the first stone of a potential pyramid of controls in the name of helping deserving small enterprise.

Our role, as I see it, is to help remove the obstacles that obstruct the free and competitive working of the market—for these are the real causes of any disadvantage the rural banker suffers. Our role is not to substitute decisions that may produce contrary results. Only in this way can we bring real equality of opportunity to all financial institutions and a fair deal to the public.

Food prices level off

When the American housewife complains about inflation, she usually has food prices foremost in mind. Not only is food the largest item in most family budgets, but these purchases are made frequently—every day in many cases. Price changes posted for groceries and meats are quickly noted, compared, and discussed.

Food prices have increased rapidly since 1965, but not so fast as prices of most other goods and services. In September 1970, prices of food purchased for consumption at home averaged 19 percent more than five years earlier. This was somewhat less than the 24 percent rise for all items in the Consumer Price Index (CPI), commonly termed the "cost-of-living" index. In this period, 1965-70, rising prices absorbed almost two-thirds of the increase in per capita after-tax income.

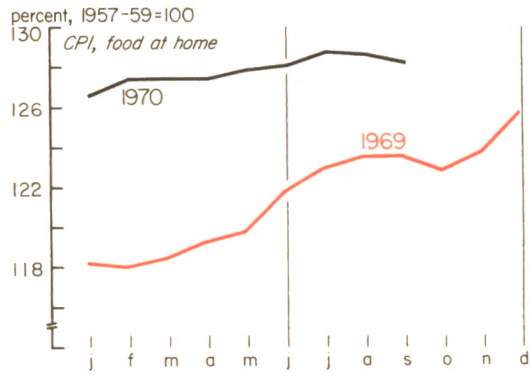
Food prices continued to rise strongly in the first seven months of 1970. In August and September, however, average prices of food for home consumption declined slightly, mainly because of increased supplies of meats, fruits, and vegetables. Part of the modest decline, less than one-half of 1 percent, was seasonal in nature, but prospective supplies of food are large. Coupled with the recent tendency of consumers to hold back on purchases of such luxuries as the more expensive cuts of meats, ample supplies will tend to dampen any new upsurge in food prices.

In September, prices of food for home consumption averaged 3.7 percent above the year-earlier level, compared to a 5.6 percent rise for the whole CPI. The margin of increase in food prices over the year-ago level has narrowed in recent months. As recently as last May, the year-to-year rise was 6.7 percent. This margin may narrow further in the remainder of 1970. But no significant decline in food prices is anticipated, either in coming months or in 1971. Crop losses caused by the corn blight will tend to prop up prices of grains in the commodity markets. More important, transportation, marketing, and processing costs, which account for more than 60 percent of the food dollar at the retail level, are continuing to rise at a rapid pace.

Food and family budgets

American consumers spent a record $105 billion for food in 1969, and purchases may approach $115 billion this year. These totals include food consumed both at home and in eating places, but purchases of alcoholic beverages, which exceeded $16 billion in 1969, are excluded.

Rise in food store prices slows but . . .

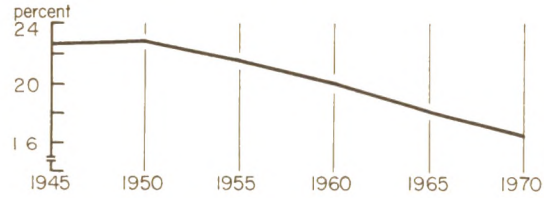


The proportion of total consumer after-tax income spent on food declined gradually from a postwar peak of 29 percent in 1947 to 17 percent in recent years. Nevertheless, expenditures on food are still the largest component of consumer outlays.

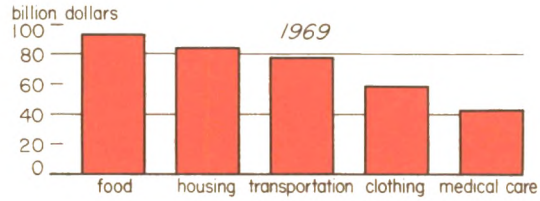
The proportion of income spent on food varies inversely with family income. Government surveys indicate that families with annual incomes of $6,500 spend more than a fourth of their incomes on food. For families with incomes of $10,000, this proportion is about a fifth. For families in higher brackets, food expenditures may account for less than a tenth of income.

Demand for food is relatively inelastic, i.e., changes in income usually are associated with relatively smaller changes in spending on food. This is especially true of the quantity, as opposed to quality, of food purchased. Rising affluence, both for individuals and for nations, is usually accompanied by an upgrading in food demands. Higher income families typically spend relatively more on meats, seafoods, ice cream, and more fully processed or prepared foods, while consuming less bread and potatoes. Also, rising incomes permit people to "eat out" more frequently. Prepared foods and restaurant meals typically cost more than the equivalent nourishment in home-cooked meals, mainly because of the higher labor cost component.

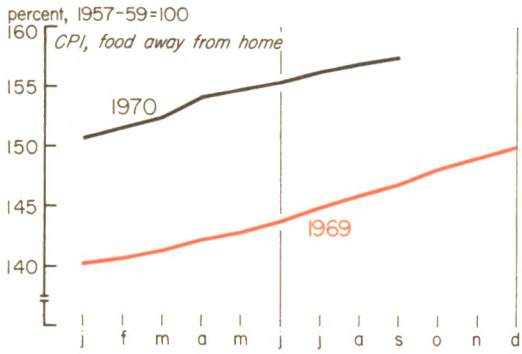
Proportion of income spent for food declines . . .



. . . but food is still the largest consumer expenditure



. . . cost of restaurant meals continues up



In calculating the Consumer Price Index, food (including both alcoholic beverages and restaurant meals) is assumed to account for 22.5 percent of family expenditures. More than a fifth of this "weight" represents foods and beverages consumed away from home. Prices of restaurant meals are affected less by changes in farm prices of foodstuffs than food purchased at retail stores—especially when farm prices decline.

Since 1965, prices of restaurant meals have

increased 34 percent, almost twice as much as food for home use. In September 1970, prices of these meals were up 7.3 percent from a year earlier, again twice as much as food for home use. Restaurant prices continued to increase in August and September when food prices at retail stores declined.

Determinants of food prices

Food prices, like prices of most goods and services, are determined by market forces of supply and demand. Aside from income—the most important factor—demand is influenced by changes in consumer tastes, growth in the population, and changes in the age composition of the population.

In the past decade, U. S. population increased 14 percent to 205 million. Since the mid-1960s, the number of teenagers and young adults has increased substantially as a proportion of the total population, reflecting high birth rates following World War II. Increases in these age groups—relatively big eaters—provide added impetus to expanding demand. Surveys indicate that people in the 20-34 year age brackets consume about twice as much meat as people over 65, and almost three times as much as children under ten.

Domestic supplies of basic foodstuffs are determined by many factors. Decisions of farmers as to the most profitable use of their resources, government programs (especially with regard to acreage controls and export subsidies), changes in technology, weather conditions, and the incidence of plant disease all play a part.

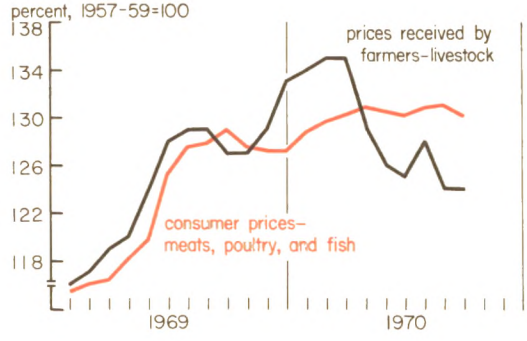
Farm commodity prices are much more volatile than prices of manufactured goods. This is particularly true of prices of cattle and hogs, which are not directly influenced by government controls.

Fluctuations in hog prices are especially marked, because of the short production cycle and the fact that demand for pork is more inelastic than demand for beef. In 1965, hog prices were 40 percent higher than a year earlier. In 1967, these prices dropped 17 percent. Last year saw a rise of 23 percent in hog prices, but in early October they were almost a fourth lower than a year earlier as the pendulum swung again.

Consumers typically do not buy hogs, bushels of wheat, or gallons of milk fresh from the cow. A relatively small portion of total food purchases, mainly fresh fruits and vegetables, moves from farms to retail stores without significant change in form or nature. Most foodstuffs are packaged, canned, frozen, or cooked before sale. Moreover, elaborate, fully-prepared dishes or whole meals increasingly have become available. Social changes including growing urbanization, increased numbers of working wives, and the desire to avoid kitchen chores have encouraged the development and sale of these products.

The Department of Agriculture makes estimates of the cost breakdown at the retail level of foods of farm origin. In recent years, the farm commodity component of the food

Retail meat prices ease, reflecting lower livestock prices

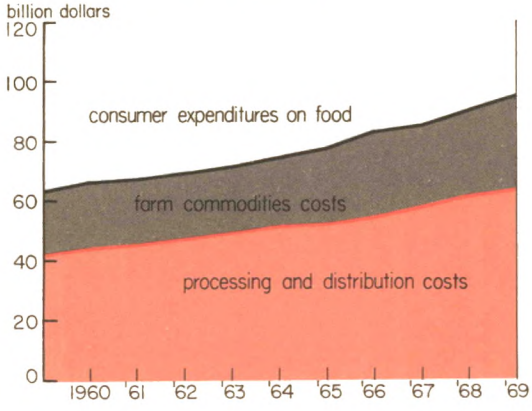


dollar has averaged 40 percent. This is somewhat more than in the early 1960s, but less than the 50 percent average of the late 1940s.

Labor costs of processing and distribution accounted for 28 percent of the retail food dollar in 1969. This proportion has increased slightly in the past decade. Corporate profits, depreciation, and business taxes took 8 percent of retail food costs last year. Transportation, other than local, took about 4 percent. All other costs—including packaging, utility services, local transportation, advertising, rent, and interest—accounted for the remaining 20 percent. Transportation and most other enumerated expenses, of course, incorporate a large element of labor cost that is not estimated separately.

Increases in worker compensation in the food industries have approximated the 7 or 8 percent annual gains negotiated this year by major unions. In the case of truckers, the rise in worker compensation was substantially higher. Public transportation firms obtained permission from regulatory authorities to raise rates in the past year and further increases are under consideration. After-tax profit margins in the food industries average only about 2 percent of sales and have relatively little effect on retail food prices. Costs of interest, rent, and other services will likely remain high or continue to increase.

Processing and distribution account for largest proportion of food costs



Meat and corn

The specter of the corn blight disease that struck the Midwest this year has caused speculation that serious crop damage will result in a scarcity of corn for feeding to cattle and hogs and cause a surge in retail food prices of meat. It seems likely, however, that the substantial expansion in livestock production underway prior to news of the blight will produce larger meat supplies through the first half of 1971.

Corn sold from government storage and from private carryover stocks remaining from previous years will help relieve anticipated shortages. But corn prices and prices of substitute feeds—sorghum grain, oats, and wheat—are almost certain to be substantially higher than in recent years. This will cause many livestock farmers to trim expansion plans and to market animals at lighter weights in order to minimize feeding costs. Nonetheless, meat supplies probably will increase, although less than expected earlier.

It is likely that pork will be in abundant supply for the remainder of 1970 and well into next year. Marketable hogs on farms numbered 13 percent more than a year earlier on September 1. Farmers indicate they intend to farrow 13 percent more sows this fall than last year. Reflecting larger supplies, hog prices in September were 17 percent below the July peak.

Poultry supplies in 1970 have been sub-

stantially larger than last year. Producers recently have begun to reduce output because of declining prices and low profits. Nonetheless, output of poultry will be about 5 percent above year-ago levels in the remainder of the year.

Beef supplies will be moderately larger than a year ago. Marketing of heavier animals boosted beef production in the first half of 1970, although the number of cattle slaughtered was below year-earlier levels. Market weights declined in August and September as feed costs increased. For the entire January-August period, beef production was up 3 percent from a year earlier. An increase in beef supplies in the months ahead will be accompanied by increased supplies of lower priced pork and chicken. As a result, beef prices are likely to decline slightly.

Summary

Consumer after-tax income has continued to rise in 1970, despite declines in output and employment. Demand for food also continues to be augmented by a further increase in the number of young people who consume more food than the population as a whole. In addition, pressures are strong to subsidize increased food consumption by poor people.

Supplies of most foods will increase again in 1971. Even if supplies of farm commodities rise faster than demand, however, it is unlikely that food prices will decline on average. The uptrend in costs of transporting, processing, and marketing foods has not abated. Housewives will continue to lament the high cost of food. Nevertheless, most families will continue to upgrade their patterns of food consumption.

Paying for pollution control

Few aspects of contemporary life have attracted more widespread interest than erosion in the quality of the environment. Air pollution in major urban areas, the deterioration of Lake Erie and Lake Michigan, impure or unsafe water in rivers and streams, rapidly rising levels of noise and congestion, and mounting accumulations of litter and refuse are among the "disamenities" that have become increasingly evident in recent years. Why have these developments occurred? What are their effects? What can be done about them? And what *ought* to be done about them?

Answers to some of these questions must come from specialists in medicine, engineering, biology, chemistry, and geology. Laymen are not qualified to gauge the impact of polluted air and water on human health, or to devise technically and scientifically sound corrective measures. But economists have something to contribute, also. Dealing with pollution is bound to entail choosing among various possible courses of action, which is much of what economics is all about.

Economics affords some insight into the reasons behind the emergence of a "pollution problem" in the first place. Substances that contaminate the atmosphere, the water, and the land are by-products of economic activity carried on by businesses, households, and governments.

Devices and processes to reduce air and water pollution are in existence. Means are available also for the reclamation or recycling of refuse and scrap. But all methods of dealing with wastes are expensive. Justification of the costs entailed in pollution abatement requires a showing that the resulting benefits will be equal to or greater than the costs of the control measures.

To complicate matters, the persons responsible for the emission of pollutants are usually not those who suffer the consequences. In short, individuals, business firms, or public bodies in a position to install and use pollution control measures often lack an incentive to act because the unfortunate effects of pollution are mostly felt by others.

Cost spillovers

Household sewage discharged into a stream flowing through an isolated farm may render the water downstream unsafe for household use unless it is treated. If the downstream user is, say, a tenant of the farm owner, the owner has an interest in maintaining the water's quality, if only to protect his source of rental income. Sewage treatment or intake water purification, or some combination of the two approaches, will be employed to cleanse the water. If this is done, the stream may usefully serve the dual purposes of providing domestic water and diluting and carrying off waste. In this example, no third person is involved; no pollution *problem* is present. The cost of sewage treatment, water purification, or both are borne internally by the farm operation. No share of the cost is passed along to others.

By contrast, when an industrial plant discharges pollutants into the atmosphere or the water, it often imposes upon third persons part of the social cost of its operations. Soot emanating from an industrial stack may not only have eye, nose, and throat-irritating

effects on the people in the affected area, but it may also saddle them with extra expenses for cleaning and laundering, for home decorating and upkeep, and perhaps even for added medical care. In other words, part of the cost of manufacturing a product is the expense borne directly by residents of the areas adversely affected by the smokey discharge. Yet, this cost is rarely included among the expenses of production of the offending plant. The upshot is that third persons subsidize the buyers of the product turned out by the plant. Because property rights in water and air have not been sharply delineated under the law, cost spillovers such as this frequently take place.

Rights and costs

In the case of water, there is no rule of law stating that those dependent on a flowing stream for their municipal water supply have an inherent right to pure water that is superior to the private rights of residents upstream to discharge sewage into the water. Nor does the law hold that persons affected by air pollution have a right to pure air that takes precedence over the presumptive private rights of others to contaminate the air.

If the law made it plain that those in an area affected by factory smoke had a fully enforceable right to the enjoyment of pure air, such persons would be able to recover damages from the firm responsible for the pollution. Ideally, these damage awards would be roughly equivalent to the spillover costs to individuals attributable to the plant's operation. The costs of the damage settlements made by the firm would be reflected in its expense of doing business.

If the damages paid exceeded the cost of installing and operating air pollution abatement devices, the firm would have an incentive to control, if not entirely eliminate, the noxious emission. The costs attributable to pollution generation within the plant would constitute part of the firm's operating expenses. Either way, the customers of the firm would defray the full social cost of producing the product.

On the other hand, if the law held that the firm had an inherent right to discharge pollutants into the air, those adversely affected might be able to secure relief by paying the cost of pollution abatement from the proceeds of a tax levied for the purpose.

Reclamation or prevention?

One means of dealing with the water problem is to make it incumbent upon any user of water—whether a household, a business firm, or a municipality—to employ a suitable water purification plant to assure the maintenance of acceptable quality. An alternative approach is to make it the responsibility of anyone who discharges water into a river to assure the purity of the water discharged if the river is the source of water supply (or recreational use) at points downstream. Treating the water drawn from the river imposes costs upon those depending on it for useable water. Treating the sewage discharged into the stream imposes costs upon those dependent on the stream to carry away and purify the effluent. Which of the two approaches will be the more efficient or economical from a social standpoint will vary from case to case. If, for example, the pollutant discharge upstream is heavy and the water intake below is light, it may be cheaper for the pollution source to defray the cost of water purification at the point of intake rather than to undertake full treatment of its effluent.

In practice, it may be all but impossible to identify and calibrate the amount of damage inflicted by water or air pollution on each

of the many persons residing or working in an affected area. Consequently, it may be a governmental responsibility to proclaim the right of its citizens to the enjoyment of air and water free of pollution beyond some specified level. This would reflect the view that people have a right to clean air and water that is prior to the right of those who would use air and water to dispose of waste.

It has become customary to deal with the problem through the adoption of pollution standards, which are enforced by law through a public body. Suitable penalties are imposed for violation of these standards.

The new Illinois Environmental Protection Act, effective July 1, 1970, embodies such an approach to pollution control. Although this act does not rescind the rights that citizens now have to sue to stop pollution, it places primary emphasis on the promulgation and enforcement of standards. Substantial penalties, so severe that they will not be regarded as " licenses to pollute," backstop provisions for monitoring discharge of pollutants.

The administrative agency created under the Illinois Act, the Pollution Control Board, is given authority to prescribe standards and regulations relating to air and water quality, waste disposal, noise emission, radiation hazards, fuels that produce pollution, pesticides and detergents, and vehicles that present a pollution problem. Factors to be taken into account in the formulation of standards are the nature of the area affected, the technical and economic practicability of control or abatement, the extent of the injury caused by the pollution, and the social and economic value of the pollution source.*

Fees, not fines

Another possible approach to the pollution control problem would be for the state to charge fees for "permits to pollute" that would entitle holders to discharge contaminants within carefully specified limits and time periods. The structure of the fee schedule presumably would be determined by the outcome of legislative debate wherein the costs and benefits affecting all concerned were duly considered. The fees collected, in effect, would be distributed to those sustaining damage in the affected community as a partial abatement of taxes.

The imposition of a fee would reflect a recognition that a polluter's spillover costs were being inflicted upon third persons. The amount of the fee would reflect a recognition that the greater the amount of air or water pollution (or other form of damage) the greater the damage or cost the polluter should be obliged to pay. A graduated fee scale, by assigning the cost of control directly to those responsible, could provide a progressive incentive for the installation of pollution abatement devices. The fees collected from those generating pollution would be regarded as costs for encroaching upon the inherent rights of third persons. Such fees should *not* be regarded as fines imposed for infraction of a formal statute or regulation, but rather as compensation for damages caused in the ordinary conduct of operations.

Litter, another matter

Another source of environmental deterioration is the accumulation of litter and refuse. Here, the imposition of special taxes

*In addition to the Pollution Control Board, the new Illinois legislation also created an Environmental Protection Agency (essentially the established Division of Sanitary Engineering in the State Health Department), which is to be the enforcement arm under the program; an Institute for Environmental Quality, basically a research agency; and the Governor's Council on the Environment, a cabinet-level policy and planning body.

upon sellers of nonreturnable containers that are practically indestructible could generate the funds necessary to finance removal. At the same time, it would encourage consumers to purchase untaxed containers not likely to become long-lasting litter.

A problem of mounting concern to many municipalities is that of finding suitable sites for the disposal of refuse and garbage, whether by sanitary land fill or incineration. As the outskirts of the major cities are becoming more densely settled, the search for suitable disposal sites has shifted to increasingly remote locations. The prospect is that disposal costs, and the taxes or service charges imposed to defray them, will rise sharply in coming years.

It should be clear that the disposal problem is quite different from the problems presented by air, water, and noise pollution. Conventional methods of disposal impose full costs upon the sources of the refuse.

Costs and the government role

Although efforts to control pollution and tidy up the environment will prove expensive, a good part of the cost will be covered out of savings elsewhere. Cleaning up the waste water discharged into a river should lead to less spending on water treatment elsewhere by others. Curtailing the discharge of smoke by an electric generating plant should reduce laundry and cleaning bills, and the like. But pollution abatement is likely to mean considerable shifting of expenses, from households to businesses, from business firm to business firm, from area to area. Prices of many products will tend to rise, as producers' accounts come to reflect the full costs of pollution control. But an offset to these effects, of course, will be the beneficial impact on environmental quality.

Nor does it appear probable that the cleanup program need place public budgets under severe strain. The nature of the problem is not such as to call for large-scale federal or other governmental expenditures, excepting, of course, in those cases where improved municipal waste disposal facilities are needed. Privately-owned industrial plants and households are the predominant sources of pollution—and suffer by its presence. Solving the problem, therefore, is largely a matter of identifying those sources, measuring the consequences, and assigning financial responsibility or enforcing an appropriate set of pollution standards. Government obviously has major tasks to perform in connection with the pollution control effort, but assumption of the costs appears to be more a direct responsibility of the private sector than of any of the levels of government.

1970 Economic Fact Book is now available. Content of this new edition includes the latest available statistics on the financial, business, and agricultural activity in Illinois, Indiana, Iowa, Michigan, and Wisconsin—the states of the Seventh District. Single copies can be obtained by writing to the bank.

Midwest Banking in the Sixties: A decade of growth and change. 193 pages. A limited number of copies are still available from the Research Department. This book deals with major trends in banking over the past ten years as evidenced by changes in organizational structure, assets and liabilities, services offered, and earnings of commercial banks in the Seventh Federal Reserve District. Price is $1.00. Make your check payable to the Federal Reserve Bank of Chicago.

BUSINESS CONDITIONS is published monthly by the Federal Reserve Bank of Chicago. Dennis B. Sharpe and George W. Cloos were primarily responsible for the article "Food prices level off" and Lynn A Stiles for "Paying for pollution control."

Subscriptions to **Business Conditions** are available to the public without charge. For information concerning bulk mailings, address inquiries to the Research Department, Federal Reserve Bank of Chicago, Box 834, Chicago, Illinois 60690.