THE ANNUAL REPORT
OF THE
COUNCIL OF ECONOMIC ADVISERS

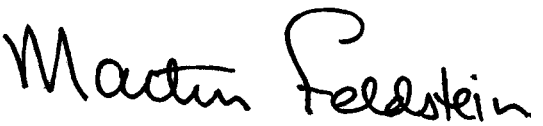
LETTER OF TRANSMITTAL

COUNCIL OF ECONOMIC ADVISERS,
Washington, D.C., January 31, 1984.

MR. PRESIDENT:

The Council of Economic Advisers herewith submits its 1984 Annual Report in accordance with the provisions of the Employment Act of 1946 as amended by the Full Employment and Balanced Growth Act of 1978.

Sincerely,



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CHAPTER 1

The Strategy of Economic Policy

THE ECONOMIC RECOVERY IN 1983 was a very favorable combination of rising output, falling unemployment, and declining inflation. These economic improvements and the long-term economic strategy that the Reagan Administration has been pursuing since 1981 are a welcome change for the American economy.

The Administration's redirection of economic policy was a necessary antidote to the poor economic performance of the 1970s. The real earnings per week of the average employee were actually lower in 1980 than they had been a decade earlier. The unemployment rate doubled between the end of the 1960s and the start of the 1980s. The level of consumer prices more than doubled and the rate of inflation increased from 5.5 percent in 1970 to 12.4 percent in 1980. Net private capital investment declined from 7.1 percent of gross national product (GNP) in the 1960s to 6.4 percent of GNP in the 1970s and only 4.1 percent of GNP in 1980.

During these same years, the government expanded and tax burdens rose. Federal Government outlays for all nondefense programs rose from 10.3 percent of GNP in 1970 to 15.1 percent in 1980. Total Federal outlays rose from 20.2 percent of GNP to 22.4 percent of GNP despite the sharp fall in the GNP share devoted to defense.

Although Federal tax receipts took one-fifth of GNP in both 1970 and 1980, many taxpayers found themselves pushed by inflation into higher marginal tax brackets despite the absence of any rise in real income. A two-earner family earning twice the median income faced a marginal tax rate that was 26 percent in 1970 but 43 percent in 1980. The number of taxpayers facing marginal tax rates of 50 percent or higher rose more than five-fold during the decade. Inflation not only pushed people into higher tax brackets, but also distorted the measurement of interest income and capital gains, causing dramatic increases in the effective tax rates on real income from savings.

Nevertheless, the Federal budget moved from a position of near balance in 1970 (a deficit of only 0.3 percent of GNP) to a deficit of 2.3 percent of GNP in 1980.

By 1980 there was widespread agreement that the direction of economic policy had to be changed if economic performance was to im-

prove. The accelerating growth of the money stock would have to be slowed in order to bring down inflation. The high marginal tax rates would have to be reduced and the tax structure reformed in order to lower the adverse effects on the incentives to work, save, invest, and take risks. The share of government domestic spending in GNP would have to be reduced in order to decrease the distorting effects of government programs, raise defense outlays, and reduce the budget deficit.

These aims guided the formation of the Administration's economic policy in 1981 and in the years since then. Now, 3 years later, monetary policy has been successful in reducing the rate of inflation. Government spending on domestic programs has been reduced to a smaller share of national income. Tax rates have been lowered and the tax system has been improved.

This chapter begins with a brief review of the economic recovery of 1983; a more complete analysis is presented in Chapter 6. Here the primary focus is on the strategy of economic policy. Three elements of the Administration's long-term economic strategy will be discussed: sound monetary policy, reduced government spending on domestic programs, and a tax structure that is conducive to individual initiative and economic growth. The fourth facet of the Administration's economic strategy, the reduction in regulation, was discussed in detail in the 1983 *Economic Report*; the deregulation of financial markets is the subject of Chapter 5 of this year's *Report.* The final section of the present chapter describes the medium-term problem of reducing the projected budget deficits.

ECONOMIC RECOVERY

The inherent vitality of the American economy was amply demonstrated in 1983. In this first full year of economic recovery, real GNP rose 6.1 percent and business output climbed 7.0 percent. Industrial production rose 16.3 percent in the 13 months following its November 1982 low, and the capacity utilization rate in manufacturing bounced back from 68.8 percent to 79.4 percent during this same period.

Civilian employment rose by 4.0 million in 1983 and the civilian unemployment rate declined from 10.7 percent in December 1982 to 8.2 percent a year later. Although unemployment remains unacceptably high, the progress in raising employment and reducing unemployment in virtually every demographic group has been gratifying. Civilian employment rose 4.0 percent between December 1982 and December 1983, while employment among blacks rose 5.0 percent and among teenagers rose 1.7 percent. The unemployment rate de-

clined 2.5 percentage points, while the unemployment rate for blacks declined 3.1 percentage points and for teenagers declined 4.2 percentage points. Despite this progress, it is clear that more than cyclical recovery will be needed to reduce the very high unemployment rates among these problem groups. The Administration's employment and training policies and proposals (discussed in detail in Chapter 2 of the 1983 *Economic Report*) offer several ways of helping these individuals and others with temporary unemployment problems to find work.

The sharp increases in output and employment were accompanied by an inflation rate that was even lower than in the previous year. The GNP implicit price deflator rose only 4.1 percent in 1983 after rising 4.4 percent in 1982 and more than 8.7 percent in 1981. The consumer price index at the end of 1983 stood only 3.8 percent above the level of a year earlier, after rising 3.9 percent in 1982, 8.9 percent in 1981, and more than 12 percent in 1980. And the index of producer prices for finished goods rose only 0.6 percent in 1983, the smallest increase in nearly two decades and far below the 3.7 percent in 1982, 7.1 percent in 1981, and 11.8 percent in 1980.

The decline in price inflation accompanied smaller nominal wage increases and a slower rise in nominal compensation per hour. The 5.6 percent increase in compensation per hour was the slowest rise since 1967. In combination with the substantial cyclical improvement in productivity, the slow rise in compensation raised unit labor costs only 2.4 percent in 1983, far below the 7.9 percent rise in 1982 and the lowest since 1965.

Despite the slow rise in nominal compensation per hour, the low rate of inflation meant that real earnings and incomes increased significantly. Real average weekly earnings rose 2.5 percent in the 12 months to December 1983, after rising 0.5 percent in 1982 and declining in each of the 4 preceding years. Real personal income per capita rose 3.0 percent between the final quarter of 1982 and the final quarter of 1983 after rising a total of only 1.4 percent in the entire 3-year period between 1979 and 1982.

A significant problem in the otherwise outstanding recovery was the sharp decline in net exports. American imports rose while our exports of goods to the rest of the world declined. The U.S. merchandise trade deficit—the excess of imports of goods over our exports of goods—reached a record of about $65 billion in 1983, nearly twice 1982's record level of $36 billion. This trade deficit, and the even larger trade deficit projected for 1984, reflects several causes, including the decline of imports among less developed countries and the relatively advanced stage of the U.S. recovery, but of primary importance is the high real value of the dollar relative to other currencies.

(For discussion of the trade deficit and the high dollar, see Chapter 2).

MONETARY POLICY

The fundamental guiding principle of the Administration's approach to monetary policy is that the rate of growth of the money stock should be reduced gradually until the rate is consistent with price stability. This principle is consistent with the general approach enunciated in recent years by the independent Federal Reserve.

Controlling the growth of the money stock may be viewed as a means of achieving a desirable path of nominal GNP. Because the growth of nominal GNP tends to follow the growth of the money stock, this strategy of monetary policy can be expected to be consistent with a gradual decline in the trend rate of growth of nominal GNP, although the mix of real growth and inflation is subject to other influences. In the remaining years of this decade, this decline in the rate of growth of nominal GNP should be compatible with both a continuing growth of real GNP and a continuing decline in the rate of inflation.

Last year's *Economic Report* discussed the difficulty of applying the principle of steady monetary deceleration in a time of rapid institutional change. An appropriate monetary policy must balance the principle of steady monetary deceleration with the need to take account of changes in asset preferences or institutional arrangements that cause sustained shifts in the velocity of money, i.e., sustained shifts in the ratio of nominal GNP to the money stock. There are, however, many uncertainties about the timing, magnitude, and direction of the effects of such financial changes on velocity.

The year 1983 was a time of significant change in financial regulations that substantially altered the nature of the monetary aggregates (M1, M2, and M3) and the pattern of portfolio demand for monetary assets. In December 1982 depository institutions were permitted to offer money market deposit accounts, a form of small-denomination time deposit with no limit on the permitted interest rate. These deposits are classified as a part of M2. Beginning in January 1983, Super-NOW accounts—checkable deposits with no ceiling on the interest rate—were permitted. These accounts are classified as part of M1.

The desirability of stable money growth rests on the stability of the demand for money relative to the stability of other relationships in the economy, and on the role of stable money growth in reducing inflationary expectations. A change in the available mix of financial assets or in the characteristics of the monetary aggregates may

change the equilibrium ratios of nominal GNP to the monetary aggregates. The Federal Reserve can in principle adjust the supply of money to compensate for the shift in demand without altering the degree of liquidity in the economy or, equivalently, the likely growth of nominal GNP; however, because of the uncertainties mentioned above in practice it is often difficult to do so. As an example of these uncertainties, it is not clear at this time the extent to which the increases in the monetary aggregates in the early part of 1983 reflected demand shifts that will produce a sustained shift in the velocity of money.

In 1983 especially, there was no way to know by exactly how much the financial deregulation changed the demand for each of the monetary aggregates. The Federal Reserve appears to have followed a relatively passive strategy during the early months of the year, not putting pressure on bank reserves. This policy had the effect of not putting much pressure on interest rates. Between December 1982 and May 1983, the monthly average of the 91-day Treasury bill rate varied between 7.9 percent and 8.4 percent. After May, however, the Federal Reserve permitted short-term interest rates to increase.

The Federal Reserve's approach to the very difficult task of adjusting the monetary policy to the new regulatory environment permitted major adjustments to occur in 1983 with minimal disruption in the financial markets. Some observers, however, are concerned that the rapid expansion of the monetary aggregates in early 1983 may lead to much higher inflation by the end of 1984. Some also fear that the slow growth of M1 in the second half of 1983 may cause output growth to decline sharply, or even turn negative, by the middle of 1984. All that can be said with certainty at this time is that monetary policy has come through a very difficult year of substantial deregulation without destabilizing either real growth or inflation in 1983. It may be noted also that on the basis of data currently available, all three monetary aggregates ended the year 1983 inside the target ranges that the Federal Reserve had established in February for M2 and M3 and in July for M1.

All too often at this stage of an economic recovery, as growth slows from the unsustainable pace of the recovery's first year, political pressures have built to try to reduce interest rates through raising money growth. The Administration rejects calls to abandon a sound monetary policy. Interest rates cannot prudently be lowered by creating more money. The Administration recognizes that if the Federal Reserve were to try to maintain a strong recovery through excessive expansion of money and credit the rate of inflation would inevitably rise and undercut the prospect for sustained growth of employment and output.

The Administration desires a steady growth of real GNP and a gradually declining inflation rate. The monetary policy consistent with this outcome is expected to be one of gradually declining rates of growth of the monetary aggregates. Although no regulatory changes comparable to those of 1982 and 1983 are expected, future shifts in institutional arrangements could cause changes in velocity that would require a recalibration of the money growth targets. It is important that any such recalibration be made only in response to a significant and persistent shift in velocity.

GOVERNMENT SPENDING

The second major aspect of the Administration's economic strategy is to reduce the burden of government domestic spending. For the first time in a half century, total appropriations for domestic programs began a sustained decline in real terms and total Federal spending on all nondefense programs began to take a declining share of the Nation's potential output.

In 1929, Federal Government spending was only 3 percent of GNP. But the Great Depression ushered in a new era for American Government. In the half century after 1930, government spending exploded. By 1960 nondefense spending (excluding interest payments) by the Federal Government was 7.5 percent of GNP. Even after adjusting for inflation, the Federal Government spent nearly four times as much on nondefense programs in 1980 as it had spent in 1960. Between 1930 and 1980 there was a dramatic increase in the role of the government and of government outlays in American economic life.

Of course, not all government outlays represent government purchases of goods or services. By 1980, 56 percent of Federal Government expenditures were transfers to individuals or to State and local governments. But transfers as well as direct purchases shift the use of the economy's resources and require a sacrifice by present or future taxpayers.

The speed at which many of the outlays grew was itself unintended and unanticipated, reflecting the so-called "entitlement" character of many of the programs introduced or modified in the 1960s or early 1970s. In such programs, the basic legislation does not appropriate a fixed amount of money for a particular purpose, but establishes rules that define who is eligible for benefits and the nature and amount of the benefits for which each person is eligible. Funds must then be made available for these benefits.

The medicare program is a good example of the unintended and unanticipated growth in outlays. Medicare was introduced in 1966

and immediately experienced costs that were far greater than had been generally anticipated. A decade ago, medicare outlays were less than $10 billion; in the current fiscal year, they will exceed $50 billion. Medicare actuaries now project that by 1989 the cost of the program will exceed $100 billion, or more than 2 percent of GNP. The dramatic growth of this program reflects greater utilization of health care services than had been anticipated and a very much faster rise in the cost of hospital care than had been forecast. For example, the cost of a day of hospital care, relative to all consumer prices, rose 67 percent in the decade before medicare was introduced, but jumped more than 100 percent in the decade after medicare began. This very rapid rise in the real cost of a day of hospital care reflected primarily the use of more personnel, equipment, and supplies for every patient. The increase in utilization and the rapid rise in costs were not accidents of history but were in large part a direct response to the medicare program itself.

The medicare example is paralleled in a wide variety of other programs in such disparate areas as housing, nutrition, and disability insurance. Other new programs were enacted and old programs expanded without a proper understanding of the future burdens that they would impose on the economy. The members of the Congress who enacted these programs and the analysts who advised them frequently underestimated substantially the future costs of the programs that they were creating. They failed to anticipate that introducing new programs or liberalizing old program rules would markedly change economic behavior—that a higher level of retirement benefits would significantly reduce the average age of retirement, that the introduction of medicare and medicaid would contribute to an explosive growth of hospital costs, and that the more generous provision of disability benefits would be followed by a four-fold increase in the number of persons collecting disability checks.

In addition to underestimating future program costs, many analysts in the 1960s and early 1970s also overestimated the future growth of economic resources with which to pay for them. The first half of the 1960s was a period of unusually rapid economic growth, with real GNP rising at a 4.7 percent annual rate. In the mid-1960s, when the Great Society programs were launched, and even in the late sixties and early seventies, there was a comforting but mistaken assumption that continued rapid growth would make it easy to finance an ever-increasing level of government spending. Unfortunately, the real rate of growth fell from the 4.7 percent experienced in the first half of the 1960s to 2.8 percent in the years since then. If that earlier rate of growth had continued, real GNP would now be nearly 40 percent

higher and, with current tax and expenditure rules, the Federal budget would now be in substantial surplus.

If the public had foreseen the future costs of the expanded social programs or the modest rate of economic growth during the past two decades, the Congress might not have enacted all of those programs and government would be smaller today. But once those programs were started, it became extremely difficult to stop them or even to reduce the level of benefits.

THE DECLINE OF DOMESTIC SPENDING

Between 1960 and the end of the 1970s, government outlays on nondefense programs nearly doubled as a share of GNP. The government took a larger and larger share of the typical family's income and used it to finance programs that came to be widely regarded as neither generally useful nor directed at the truly needy. Many observers concluded that many well-intentioned programs were actually often exacerbating the very problems that they set out to solve and usually creating adverse side effects of their own.

Since 1980 there has been a remarkable revolution in government spending. Social security benefits now take a decreasing share of GNP and all nondefense spending other than social security and medicare has already declined significantly as a share of GNP. Table 1–1 presents Federal Government outlays and receipts as percentages of GNP in fiscal years 1960, 1970, and 1980 through 1989. The values for 1984 through 1989 reflect current services levels for all domestic programs, the Administration's 1984 budget proposal for defense, and the economic assumptions with respect to real growth and interest rates used in the Administration's current budget calculations. (These economic assumptions are discussed in detail in Chapter 6.)

Spending on social security benefits (including disability benefits as well as benefits for retirees and dependents) rose dramatically from 2.3 percent of GNP in 1960 to 5.3 percent in 1983. Although social security benefits will continue to grow in the future because of the increased number of retirees and rising benefit levels, the social security share of GNP has begun to decline and will shrink to 4.7 percent of GNP over the next 5 years.

The reduced share of GNP spent on all nondefense programs except social security and medicare (line 5 of Table 1–1) has been even more dramatic. In 1980 government spending on these activities took 9.3 percent of GNP. In the 1984 fiscal year, that share is down to 7.5 percent of GNP, a decline of one-fifth.

Between fiscal years 1980 and 1984 real government spending on all nondefense activities except social security and medicare will have

TABLE 1-1.—*Budget outlays and receipts as percent of GNP, fiscal years 1960, 1970, and 1980–89*

[Percent; fiscal years]

Item	Actual						Estimates						
	1960	1970	1980	1981	1982	1983	Current services						Policy 1989
							1984	1985	1986	1987	1988	1989	
Total outlays	18.5	20.2	22.4	22.8	23.8	24.7	24.0	24.3	24.1	23.8	23.4	23.0	22.1
National defense	9.7	8.4	5.2	5.5	6.1	6.5	6.7	7.3	7.6	7.7	7.7	7.8	7.6
Net interest	1.4	1.5	2.0	2.4	2.8	2.8	3.0	3.0	3.0	3.0	2.8	2.6	2.4
Other	7.5	10.3	15.1	15.0	15.0	15.4	14.3	14.0	13.4	13.1	12.9	12.6	12.1
Non-OASDHI	5.1	6.5	9.3	8.8	8.4	8.4	7.5	7.2	6.7	6.4	6.2	5.8	5.5
OASDHI	2.3	3.8	5.8	6.2	6.6	6.9	6.8	6.7	6.7	6.7	6.7	6.7	6.6
Social security	2.3	3.1	4.6	4.8	5.1	5.3	5.0	4.9	4.8	4.8	4.7	4.7	4.6
Medicare	0	.6	1.2	1.4	1.5	1.6	1.7	1.8	1.9	1.9	2.0	2.1	1.9
Total receipts	18.6	19.9	20.1	20.8	20.2	18.6	18.7	19.0	19.0	19.0	19.3	19.4	19.8
OASDHI	2.1	3.9	5.3	5.6	5.8	5.7	5.9	6.1	6.1	6.2	6.5	6.6	6.7
Other	16.4	16.0	14.8	15.2	14.4	12.9	12.9	12.9	12.9	12.9	12.9	12.8	13.1
Deficit	−.1	.3	2.3	2.0	3.6	6.1	5.3	5.3	5.1	4.8	4.1	3.6	2.3

Sources: "Budget of the United States Government, Fiscal Year 1985" and Council of Economic Advisers.

fallen by 12.5 percent. This real 4-year decline, which includes outlays for everything from entitlement programs to the administrative costs of running government departments, is absolutely unprecedented. During each of the five 4-year periods between 1960 and 1980, this spending rose between 11 percent and 38 percent even after adjusting for inflation

The changes that have been enacted since 1980 mean that the share of GNP spent on all nondefense activities except social security and medicare will continue to decline in the future even if the Congress adopts no further spending cuts. By fiscal 1986 this domestic spending share will be down to 6.7 percent of GNP and therefore back to the same GNP share that such nondefense spending took in the late 1960s. This decline as a percent of GNP means that total spending on these nondefense government activities will average $84 billion less a year in the 3 fiscal years from 1984 through 1986 than it would have if the 9.3 percent GNP share of 1980 had continued. Although future spending could of course be increased by legislative action, it is significant that the Congressional Budget Resolution for 1984 through 1986 also called for essentially this same declining share of GNP.

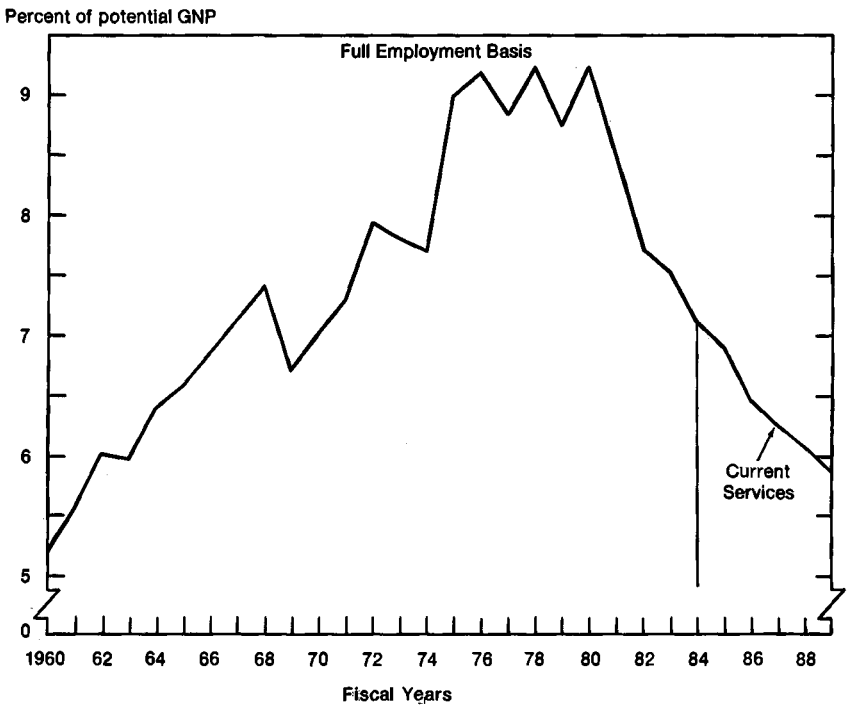
Moreover, under current law this spending share will continue to decline to only 6.2 percent of GNP by 1988, back to the level of the early 1960s. And this lower level of outlays means savings that aver-

age $157 billion a year from 1987 through 1989 relative to what would have been spent if the 1980 share of GNP had been maintained.

Chart 1-1 shows the share of potential GNP that nondefense spending excluding social security and medicare would represent at full employment. The growth in the 1960s and 1970s of these outlays will have been almost completely reversed by 1989.

Chart 1-1

Nondefense Non-Interest Spending Excluding OASDHI



Sources: Office of Management and Budget and Council of Economic Advisers.

These projected spending reductions relative to the 1980 GNP share reflect the current rules of entitlement programs and the assumption that the Congress will continue to appropriate funds to maintain the current level of service for all programs governed by annual appropriations. The President's 1985 budget proposes additional reductions in nondefense spending in each year from 1985 through 1989. These spending reductions total an additional $74 billion.

Total nondefense government spending as a share of GNP, including social security and medicare as well as all other domestic programs, is now falling and will, on the basis of current law and the current services levels of annually appropriated programs, decline from 15.1 percent of GNP in 1980 to 12.6 percent of GNP in 1989. This decline represents an annual saving of more than $138 billion a year in 1989.

One implication of the very substantial reduction in nondefense spending is that it permits an increase in defense spending without an equal increase in tax revenue. The Administration's budget calls for a rise in defense spending from 5.2 percent of GNP in 1980 to 7.6 percent of GNP in 1989. For comparison, defense spending was 8.4 percent of GNP in 1970 and 9.7 percent of GNP in 1960.

Unfortunately, the rapid rise in interest on the national debt will absorb a substantial share of the budget savings achieved by reduced domestic spending. The net interest paid by the government will increase from 2.0 percent of GNP in 1980 to 2.6 percent in 1989, even if the rate of interest on Treasury bills declines from the current level of nearly 9 percent to less than 6 percent by the end of 1989.

Putting these pieces together shows that nondefense spending excluding social security and medicare will decline by 3.5 percent of GNP between 1980 and 1989 while defense spending will rise by 2.6 percent of GNP and the net interest paid by the government will rise by 0.6 percent of GNP. The reduction in domestic outlays financed by general revenues is thus slightly more than sufficient to balance the increase in defense spending and interest costs, leaving total outlays excluding social security and medicare virtually unchanged as a share of GNP.

Despite the dramatic progress in reducing spending on domestic programs, government outlays are still projected to equal 23 percent of GNP in 1989, about 3 percentage points higher than in 1970 and 5 percentage points higher than in 1960. This increase in outlays does not reflect greater defense spending, because the GNP shares devoted to defense would actually be lower in 1989 than in either 1970 or 1960. The rapid growth of social security and medicare outlays (from 2.3 percent of GNP in 1960 to 3.8 percent of GNP in 1970 and 6.7 percent of GNP in 1989) accounts for nearly all of the increases in outlays as a fraction of GNP since 1960 and 1970. The additional source of increased outlays, the rise in interest payments on the national debt, will be more than offset by the fall in defense spending as a share of GNP between 1960 and 1989.

These are the fundamental facts that define the budget dilemma. Despite the remarkable reduction in domestic spending on a wide range of activities, the growth of the social security and medicare

programs raises the share of Federal Government outlays in national income. With the budget balanced in 1960 and with taxes taking the same share of GNP in 1984 as in 1960, the growth of spending since then implies large budget deficits. Before discussing the problem of the budget deficit, this chapter considers the changes in the nature of the tax system that have occurred in the past 3 years.

THE CHANGE IN TAX STRUCTURE

The third principal part of the Administration's economic strategy is to reduce the tax burden and restructure the tax system. The Economic Recovery Tax Act passed in 1981 substantially changed the quantity and quality of taxation. It reduced personal income tax rates by a cumulative 23 percent over 3 years. Special provisions reduced the tax on two-earner families, introduced the indexing of tax bracket and personal exemptions, and lowered the effective tax rates on income from saving and investment. The total Federal taxes paid by a median-income family, including both the personal income tax and the social security payroll taxes, will be $1,750 lower in 1984 than they would have been without the tax cuts. These changes represent a reduction of 36 percent in Federal income tax liabilities and of 26 percent in total tax liabilities.

The total share of GNP taken by taxes has come down significantly (see Table 1–1, line 9). In fiscal 1980, all Federal taxes took 20.1 percent of GNP. In the current fiscal year, this tax share will be 18.7 percent of GNP. Continuing economic recovery and the rise in social security payroll taxes will raise the tax share of GNP to 19.4 percent by 1989, if there are no further legislative changes. Without the 1981 changes, the tax share would have risen substantially from the 20.1 percent share of 1980.

These tax reductions occurred despite the rise in the social security payroll tax. If the social security payroll tax is excluded, the reduction in all other taxes has been even greater, falling from 14.8 percent of GNP to 12.9 percent of GNP. This fall is equivalent to a $68 billion tax cut in 1984 alone.

The tax changes in the past 3 years have, however, gone far beyond reducing the amount of taxes and have achieved fundamental improvements in the nature of the tax system. The tax burden on the economy depends not only on the quantity of taxes but also on the quality. Although most taxes have adverse economic effects, some taxes are more harmful than others. Taxes are undesirable not only because they take away the fruits of labor, of risk-taking, and of saving, but also because they distort economic decisions and thereby lead to a wasteful misallocation of resources. Although there is no

simple rule for improving the quality of taxes, there are a few useful principles. The most basic principle is to minimize the tax-induced distortions of economic choices—choices about which goods to buy, how much to work, how hard to save, and how to invest the capital that results from savings. A key implication of this principle is that the marginal tax rates paid on additional income or profits are more important than the average tax rates. A second implication is that taxes do more harm when levied on individuals or activities that are more responsive to tax rules. Taxes that reduce the incentive to save or that cause a misallocation of capital among different uses are particularly undesirable, because they unnecessarily increase the total economic burden of the tax system and reduce productivity and economic growth.

The 1981 tax changes improved the quality of the tax system in several ways. The top marginal individual income tax rate was reduced from 70 percent to 50 percent and marginal tax rates at all income levels were reduced nearly one-fourth. Moreover, the reduced tax rates for two-earner families focuses tax relief on married women, a group whose labor supply is known to be particularly sensitive to tax rates.

In addition to reducing marginal tax rates, the Economic Recovery Tax Act provided for the indexing of tax brackets, beginning January 1985, to prevent inflation from pushing individuals into brackets with higher marginal tax rates. Without indexing, a decade of 5 percent inflation would more than offset the 23 percent reduction in tax rates.

Perhaps the most fundamental change has been in the taxation of personal saving. The American tax system has long been biased against saving and in favor of current consumption. The tax law changes in the Economic Recovery Tax Act represent a major shift away from this antisaving bias. The universal extension of eligibility for Individual Retirement Accounts (IRAs), the expansion of IRA and Keogh plan limits, the reduced tax rates on investment income, and other specific changes should spur private saving in the years ahead.

The favorable effect of these tax changes on saving can be expected to occur only gradually. At first, by transferring previously saved funds from existing accounts, many individuals can deposit the maximum $2,000 a year to an IRA without doing any additional saving. Some individuals may extend this period by borrowing. But, after a few years, most taxpayers will have exhausted all previously accumulated funds; they can then make additional IRA contributions only if they save more.

The new tax treatment of saving represents something far more basic than just an increased stimulus to saving. The universal availability of IRAs and the increase in IRA and Keogh limits will allow most American taxpayers to pay tax only on that part of their income that they do not save—that is, only on the part of their income that they consume. It is also true that two-thirds of taxpayers do not itemize deductions and therefore cannot deduct interest expenses. Thus, for most Americans, the income tax system has now been virtually transformed into a consumption tax. This is a very fundamental change in the character of our tax system.

An indirect but important source of reduction in the effective tax rate on the income from savings has been the fall in the rate of inflation. Because our tax law bases tax liability on nominal interest income and nominal capital gains, a lower rate of inflation implies a substantial reduction in the effective rate of tax. An individual in the 30 percent tax bracket who earns a 15 percent nominal interest rate when the inflation rate was 10 percent had an after-tax nominal yield of 10.5 percent and an after-tax *real* yield of only 0.5 percent. By contrast, if the individual earns a nominal 10 percent interest rate when the inflation rate is 5 percent, the nominal after-tax yield is 7 percent and the real after-tax yield is 2 percent. The effective tax rate on the same real interest income falls from 90 percent when inflation is 10 percent to 60 percent when inflation is 5 percent. With no inflation and an interest rate of 5 percent, the effective tax rate would fall to 30 percent and the real after-tax rate of return would be 3.5 percent, or 7 times as great as it was with a 10 percent inflation rate.

The tax climate for business investment has also been substantially improved in the past 3 years. During the 1970s the rising rate of inflation combined with the old depreciation rules to raise very substantially the effective rate of tax on the income from investment in business plant and equipment. The 1981 changes in the tax rules governing depreciation, as modified in the Tax Equity and Fiscal Responsibility Act, and the sharp decline in inflation reduced this effective tax rate substantially. The result is higher after-tax rates of return on business investment, and therefore a renewed incentive to invest in plant and equipment.

The present strength of business investment in the face of very high real rates of interest can be attributed at least in part to the lower effective tax rates on business income and the higher real after-tax rates of return that result. What matters for investment is not just the rate of interest or the profitability of investment, but the difference between the net-of-tax real cost of funds and the after-tax real profitability of investment.

Similarly, the strength of the stock market in the face of very high real interest rates reflects in part the improved after-tax profitability that investors now expect. Indeed, one way to explain the current level of investment is to note that the change in business tax rules has raised the value in equity markets of new physical capital (or, equivalently, reduced the cost of equity capital to finance new investment). This has stimulated business to increase its investment.

The recent reductions in high marginal tax rates and the improved tax treatment of saving and investment represent major improvements over earlier tax rules. Much more can and should be done, however, to reduce the adverse effects of the tax system on individual and business incentives and therefore on the potential income and growth of the economy. The President has emphasized his interest in further improvements of the tax law. The Administration will continue to examine possible directions for tax reform and will propose reforms aimed at making the tax system simpler, fairer, and more efficient.

REDUCING THE BUDGET DEFICIT

Despite the dramatic reduction in the share of national income taken by government domestic spending and the fundamental improvement in the character of our tax system, the Nation still faces the serious potential problem of a long string of huge budget deficits. Vigorous economic growth can eliminate the cyclical component of the deficit. But without legislative action, the structural component is likely to grow just as fast as the cyclical one shrinks. The Administration's economic projections imply that the budget deficit will remain roughly $200 billion a year—or about 5 percent of GNP—for the rest of the decade unless there is legislative action to reduce spending or raise revenue. Deficits of that size would represent a serious potential threat to the health of the American economy in the second half of this decade and in the more distant future.

DEFICIT PROJECTION

The cyclical component of the budget deficit is the part of the deficit that occurs because the unemployment rate exceeds the inflation threshold level of unemployment, i.e., the minimum level of unemployment that can be sustained without raising the rate of inflation. This excess unemployment raises the deficit by depressing tax revenues and by increasing outlays on unemployment benefits and other cyclically sensitive programs.

The remaining part of the budget deficit, known as the structural component, is the amount of the deficit that would remain even if

the unemployment rate were at the inflation threshold level. The Administration estimates that the inflation threshold level of unemployment is now 6.5 percent and will decline in the coming years as the relative number of inexperienced workers declines and as the Administration's employment policies are enacted and take effect.

Table 1–2 presents the cyclical and structural components of the budget deficit for 1980 through 1989. The 1983 deficit of $195 billion was divided about evenly between the cyclical and structural components. Because of the lower level of unemployment projected for 1984, a much larger share of the current year's deficit is structural. The projected deficit of $187 billion includes a cyclical component of $49 billion and a structural component of $138 billion. By 1989, the entire projected budget deficit is structural.

TABLE 1–2.—*Cyclical and structural components of the deficit, fiscal years 1980–89*

[Billions of dollars]

Fiscal year	Total	Cyclical	Structural
Actual:			
1980	60	4	55
1981	58	19	39
1982	111	62	48
1983	195	95	101
Estimates (current services):			
1984	187	49	138
1985	208	44	163
1986	216	45	171
1987	220	34	187
1988	203	16	187
1989	193	−4	197

Sources: *Budget of the United States Government Fiscal Year 1985* and Council of Economic Advisers.

A rate of economic growth for the next 5 years that is sufficiently greater than the growth forecast by the Administration and by virtually all private forecasters could in principle eliminate the deficit without legislative action. However, a 1 percent increase in the current level of real GNP would reduce the budget deficit by only about $12 billion. It would require an increase of 40 percent in the projected growth rates over the next 6 years to eliminate the budget deficit by the end of the decade without a change in spending or tax rules. It would clearly be unwise to rely on such an unprecedented and improbably fast rate of growth. A prudent policy at this point must assume that economic growth alone will not eliminate these deficits.

The economic assumptions that are used to project the budget outlays and receipts are based on the premise that there will be a

sound monetary policy and that future legislative changes will reduce budget deficits sharply in the years ahead. In the absence of legislative changes to reduce deficits substantially in future years, interest rates will be higher than projected and the real growth rate will probably be lower than projected. The budget calculations assume that real GNP grows at an average annual rate of 4.3 percent from 1983 to 1989. The calculations also assume that the Treasury bill rate will fall from the current 8.9 percent to 5.0 percent by 1989. These assumptions are reasonable if the budget deficit in that year is about 1.5 percent of GNP and is moving toward complete balance. But if legislative changes to reduce outlays and increase receipts are not enacted and the Treasury bill rate remains at its current level, the higher interest payments on the national debt will raise the 1989 deficit by about $60 billion, bringing the total deficit in that year to approximately $250 billion. Growth rates of real income slower than those assumed in the budget calculations would raise the deficit even more.

LONG-TERM CONSEQUENCES

The projected budget deficits would directly and substantially increase the future size of the national debt. If legislative action is not taken, the cumulative budget deficit would be more than $1,100 billion over the next 6 years. The annual interest on this extra debt alone would represent a permanent cost of about $60 billion in 1989, if interest rates fall as assumed, or at least $100 billion a year if the interest rates remain at their present level. These amounts are equivalent to between 10 percent and 17 percent of the personal and corporate income tax revenue now projected for 1989.

This growth of the national debt and the interest on the national debt shows that budget deficits do not eliminate the need for spending cuts or tax increases, but just postpone the time when extra spending cuts or larger tax increases must take effect to pay for current deficits.

The most important long-term economic effect of the prospective budget deficits would be to absorb a large fraction of domestic saving, and thereby reduce the rate of capital formation and slow the potential long-term growth of the economy. Federal borrowing to finance a budget deficit of 5 percent of GNP would absorb about two-thirds of all the net domestic saving that would otherwise be available to finance investment in plant and equipment and in housing.

The reduced availability of investable funds means that the real rate of interest must rise until the demand for funds for private investment is reduced to the available supply. Stated more generally, the real net-of-tax cost of capital must increase relative to the real

net-of-tax return on capital until the demand for funds is reduced to the available supply.

Although the 1981 tax changes and the reduced rate of inflation will direct a higher share of the remaining capital formation to business investment and away from owner-occupied housing, the effect of the budget deficits nevertheless would be a lower rate of investment in business plant and equipment as well as in housing.

Each dollar of additional budget deficit does not necessarily reduce capital accumulation by a dollar. The actual impact varies over time, with less crowding out of capital formation likely in the first year or two after an increase in the budget deficit than in subsequent years. This is particularly so when, as in recent years, the increase in the budget deficit occurs when there is substantial excess capacity in the economy.

The current situation also shows how the extent of the crowding out of capital formation in the United States can be temporarily reduced by an inflow of foreign funds that are attracted to the United States by the rise in our real interest rate and increased real after-tax return on equity investments. This capital inflow usually begins after a lag, rises to a peak, and eventually shrinks. Even if the budget deficit remains at a high level, the inflow of capital from abroad eventually contracts as foreigners become increasingly unwilling to hold even more U.S. assets in their portfolios.

If the current services budget deficits that are currently projected were actually to occur, the likely result would be to reduce net investment in plant and equipment to a substantially lower share of GNP than prevailed in the 1960s and 1970s. Net private investment has fallen from 6.7 percent of GNP in the three-decade period through 1979 to only 3.2 percent of GNP in the past 3 years. Much of this decline is attributable to the stage of the business cycle. The 1983 deficit strengthened the recovery and thereby boosted business fixed investment, although the government's competition for funds to finance the structural deficit also depressed the level of investment below what it would otherwise have been.

DEFICITS AND THE RECOVERY

The deficits will have effects on the economic recovery as well as on the capital stock and on long-term economic growth. To understand the effect of budget deficits on the economic recovery, it is important to distinguish the deficits in the early years of the recovery from the deficits that are projected for subsequent years. Although the projected future deficit would be likely to have serious adverse consequences on the character and possibly the duration of the recovery, the near-term deficits probably have a positive impact on the

pace of recovery in 1983 and 1984. The tax cuts in 1982 and 1983 raised after-tax incomes and therefore contributed to the rise in consumer spending that has been responsible for so much of the recovery. Similarly, the direct fiscal stimulus of the large 1984 deficit will do more to raise demand in 1984 than the increased real interest rates that result from the 1984 deficit will do to depress demand.

It is the continuing string of large deficits projected out through the end of the decade and beyond that is the serious threat to the health of the near-term recovery. The prospect of such prolonged deficits inevitably raises the real long-term interest rate above what it otherwise would have been, reducing current activity in key interest-sensitive sectors and causing the recovery to be lopsided. The most conspicuous example of such current crowding out is the sharp decline in net exports. High interest rates in the United States attract funds from the rest of the world, causing the exchange value of the dollar to rise. The strong dollar makes it difficult for U.S. products to compete in world markets and makes foreign products more attractive to American buyers. In addition, the high real interest rate is no doubt also causing the demand for housing, for some consumer durables, and for some plant and equipment investment to be lower now than it would otherwise have been. In these ways, the anticipation of future deficits may weaken the pace of recovery now even though the current deficit strengthens the pace of the current recovery.

If the deficits persist, the crowding out would also persist but the pattern of crowding out would change over time. As the value of the dollar declines, the merchandise trade deficit is likely to shrink, focusing more of the crowding out on the domestic capital market. The current rise in profits and retained earnings that result from the cyclical upturn and from the 1981 tax changes temporarily protects business investment and concentrates more of the domestic crowding out on residential construction. This too will change with time, placing more of the burden of future crowding out on business investment in plant and equipment.

No one can be sure of exactly how the pattern of crowding out would evolve through time. It is clear however that the persistence of large structural budget deficits would contribute to producing a lopsided recovery. The recovery would not be shared fully by the export industries and by those firms that compete with imports from abroad. Nor would the construction industry and those industries that are directly involved in the production of capital goods and consumer durables be likely to keep pace with overall economic activity.

As a result, employment and economic activity would shift from these contracting interest-sensitive sectors to the areas of expanding

demand in the services and nondurable goods industries and in the defense-related industries. If this shift of demand proceeds smoothly enough, the overall recovery would continue at a satisfactory pace with declining total unemployment. It is quite possible, however, that the additional demand would concentrate in sectors that are operating close to capacity while the crowding out withdraws demand from industries where a great deal of excess capacity exists. If so, much of the additional demand might be absorbed in price increases while the crowding out adds to unemployment. If this occurs, the resulting recovery would be slower paced, more fragile, and more inflationary than a more balanced recovery.

No one can predict in detail the effects of a continuing series of such large deficits. The economy could continue to experience a satisfactory overall pace of recovery for several years with declining rates of unemployment and inflation. But deficits of this magnitude could lead instead to imbalances within the economy that cause the recovery to lose momentum. There is also the risk that the persistent deficits could lead to inappropriate economic policies in the future. An overly expansionary monetary policy would cause increased inflation while a sudden large fiscal contraction could depress economic activity. Although no one can be sure just how the economy would behave in the face of such unprecedented deficits, the longer the deficits are allowed to persist, the greater are the risks to our economic future.

BUDGET STRATEGY

A major reduction in the structural budget deficit must therefore be achieved over the next several years. This must be done without causing a contraction of economic activity. Because the direct effect of reducing the budget deficit is to reduce government spending and private consumption, there must be an increase in investment and net exports if real incomes and economic activity are to remain at high levels.

A reduction in the level of the current or future budget deficits automatically stimulates investment and net exports by lowering the real rate of interest and the exchange value of the dollar. However, experience shows that the rise in investment and in exports follows the fall in interest rates and the exchange rate only with a substantial lag.

It would be unwise, therefore, to reduce the 1984 deficit by a very substantial amount. To reduce the deficit by a significant amount without jeopardizing the recovery, the financial markets should be given adequate advance notice of the intended deficit reduction. The

result would be a stronger economy that could absorb the deficit reduction without a contraction of overall economic activity.

In the fiscal year 1984 budget that was presented to the Congress in January 1983, the Administration proposed a deficit reduction program that would begin with small reductions in the deficits of 1984 and 1985 but then would reduce the 1986 deficit by 41 percent and cut the 1988 deficit by 61 percent to only 1.6 percent of GNP. Unfortunately, the Congress failed to adopt those proposals.

The Administration is now taking a two-stage approach to dealing with the prospective budget deficits. The President has called upon the leaders of the Congress to establish a bipartisan group to work with the Administration to develop a "down payment" package that will reduce the deficit by about $100 billion over the next 3 fiscal years. The aim of these negotiations is to achieve a deficit reduction package in the next few months. This package would be comprised of some of the less contentious spending cuts still pending before the Congress, certain measures to close tax loopholes, and additional outlay savings achieved through improvements in management procedures and elimination of unnecessary or inefficient activities.

Such legislation to reduce the deficit by about $100 billion during the next 3 fiscal years would make a significant contribution to reducing deficits and the future national debt. It could also give increased confidence to the financial markets, business investors, and consumers that the projected deficits can be controlled and eventually eliminated. The result should be a stronger economy in 1984 and 1985.

Enacting a "down payment" package is just a first step in reducing budget deficits. The President has indicated that he will propose legislation in early 1985 that will further reduce deficits and point the way toward budget balance. If these proposals are enacted, the economy can enjoy continuing expansion and a reduced burden of national debt.

CHAPTER 2

The United States in the World Economy: Challenges of Recovery

THE INTERNATIONAL ECONOMY is in a much stronger position today than it was one year ago. In late 1982 the world was still in a severe recession, and prospects for recovery were uncertain; the third world debt crisis was a source of deep concern; and economic stagnation had given rise to strong protectionist pressures. In 1983 a vigorous recovery, originating in the United States, began to lead the world out of recession. Many of the high-debt countries made major strides toward successful adjustment. Despite increasing protectionist pressures, the open international trading system remained fundamentally intact.

But the outlook is not entirely sunny. The recovery is not a cure-all for the serious strains that remain in the world economy. From the U.S. point of view, the focus of these strains is the emergence of record trade deficits. Closely related to the problem of the trade deficits is the problem of the continued high value of the dollar in foreign exchange markets. There are also other economic troubles around the globe. Trade relations among the United States, Japan, and the European Community remain a source of friction. Much of Europe is lagging behind the recovery in North America. The high-debt countries are finding the road back to financial health to be slow and painful.

This chapter takes the U.S. trade balance as a starting point for an examination of the challenges that still face the world economy. It is organized in three sections. The first section examines the rise in the trade deficit and the related problem of the strong dollar. The second section covers developments among industrialized trading partners: Japan, Canada, and the European countries. The third section explores the third world debt problem.

THE U.S. TRADE DEFICIT AND THE DOLLAR

The most dramatic recent development in U.S. international economic relations is the rising trade deficit and associated capital inflow. The 1983 deficit in merchandise trade was about $65 billion,

approaching twice the previous record, which was set in 1982. A deficit in the neighborhood of $110 billion is forecast for 1984, three times the 1982 level. The deficits signify loss of income and employment in those U.S. industries that depend on exports or compete with imports. A common reaction is one of concern. It is easy to draw the impression that there is a serious adverse long-run trend in the competitive standing of the United States in the world economy. The greatest danger is that such ideas will come to be believed, and that as a result, the Nation will opt for major departures from its traditional economic system.

Understanding the source of the rising trade deficit is an essential precondition to making intelligent policy choices. If policy is charted in an atmosphere of panic, then crucial mistakes will be made. Mistakes in trade policy, once committed, cannot be easily undone. Foreign trading partners often react to protectionist measures in kind, while, domestically, powerful interest groups coalesce around the new status quo.

SOURCES OF THE TRADE DEFICIT

Although the 1983 and likely 1984 trade deficits are without precedent, they are not difficult to explain. To begin with, the United States has a normal or "structural" deficit in merchandise trade that is offset by a surplus in exports of services and therefore need not be a cause for special concern. But it is the recent increase in the trade deficit that has attracted attention. The increase can be broken down into three parts. First, the appreciation of the dollar has made it difficult for U.S. firms to compete in world markets. Second, there has been a substantial loss in net exports to debt-troubled countries. Third, the United States is experiencing more rapid growth in income, and therefore, in imports, than are Europe and Japan. These three factors concern economic perturbations that, though large, are believed to be temporary. The structural deficit is normal in that it would exist even in the absence of the temporary factors.

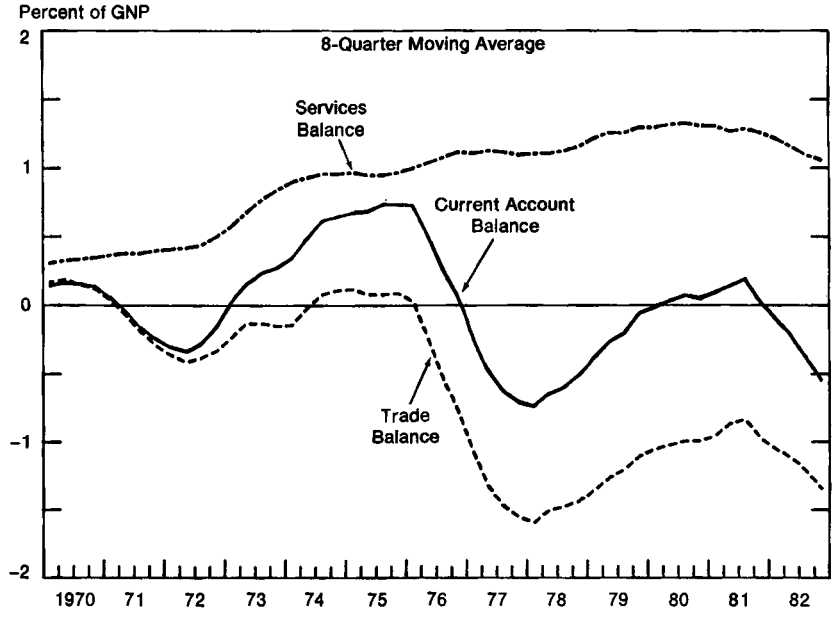
The Structural Trade Deficit

In the 1970s, the United States ran a merchandise trade deficit that was on average equal to 0.5 percent of gross national product (GNP), with a gradual increasing trend, as Chart 2-1 illustrates. This deficit in merchandise does not imply a failure of the Nation to pay its way in international trade. The United States normally runs a surplus in services to offset the deficit in merchandise trade. The largest component of the surplus is the earnings on overseas investments that American residents have made in the past; these earnings are counted as services because they are payments for the use of U.S. capital. But such exports as the services of lawyers, engineers, and computer

programmers, and banks, insurance companies, hospitals, and universities are also an important and growing component of the U.S. balance of payments. The balance in services trade has a gradual upward trend, as Chart 2-1 shows.

Chart 2-1

Balances on Current Account, Trade, and Services as Percent of GNP



Note.—Based on seasonally adjusted data.
Source: Department of Commerce.

Indeed, it is possible that, because of measurement errors, the true U.S. surplus in services is greater than that recorded. Statistics show that the sum of the services balance of all countries is a large negative number, on the order of −$80 billion. Because one country's exports are another country's imports, this number should in theory be zero. It must necessarily be that some countries are underreporting their services balance. For example, fleets of open registry (i.e., flying "flags of convenience") often do not report their earnings to any country. Another example is investment income that is channeled through tax havens and is thus unrecorded in the recipient country. Given the importance of the United States in services trade, it is possible that part of the unreported service exports are American.

Adding together the balances in merchandise trade, services, and transfers (such as immigrants' remittances to their countries of origin) gives the balance on current account. A country's current account balance indicates its changing investment position vis-a-vis its trading partners. A current account deficit means that foreigners are on net accumulating claims on assets located in the domestic country. Countries with profitable investment opportunities, such as South Korea, Taiwan, Singapore, and other rapidly industrializing countries, are normally in this situation, borrowing savings from abroad to finance their development. A current account surplus means that the domestic country is on net accumulating claims on assets located abroad. Capital-rich countries with high saving rates, such as Japan and West Germany, are normally in this situation, lending their savings to other countries where they can earn a higher rate of return. There is no clear argument as to whether the United States should normally be a net borrower or net lender at this stage in its history. The United States has been a capital-rich country throughout the 20th century, and before the 1970s the current account was normally in surplus. But the U.S. saving rate now appears to be the lowest among major countries. As it happens, the U.S. current account balance, as shown in Chart 2-1, was on average virtually zero during the 1970s.

The point is that a certain amount of the U.S. merchandise trade deficit is normal: it would be there, offsetting the surplus in services, even if the U.S. current account balance were zero. Judging from the long-run trends in the merchandise trade deficit and the services surplus, this structural trade deficit now appears to be in the range of $20 to $25 billion. Most of the recent trade deficit is thus still to be explained.

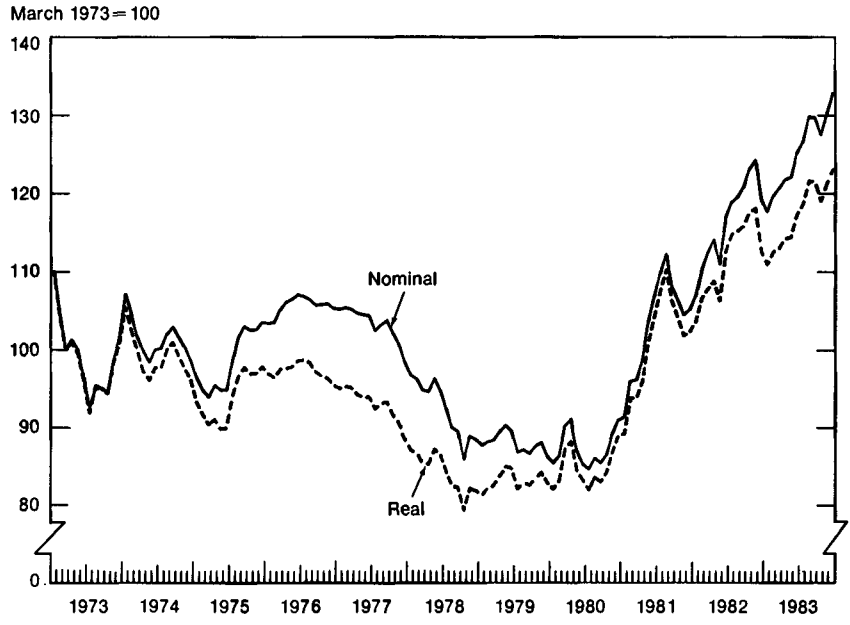
Effect of the Strong Dollar

The high value of the dollar in foreign exchange markets is the most important cause of the recent increases in the trade deficit. As Chart 2-2 shows, the dollar has appreciated sharply over the past 3 years. As of December 1983, the dollar had risen 52 percent against an average of 10 trading partners' currencies weighted by their shares in world trade, relative to the average for 1980. (Weighting countries by trade with the United States alone, which gives relatively less weight to Europe and relatively more to Canada and Japan, yields a smaller number.) Exchange rate trends sometimes match international differences in inflation rates, but that has not been the case in this episode. Very little of the appreciation of the dollar was offset by a more rapid increase in the foreign price level than in the U.S. price level. In other words the dollar appreciated not only in *nominal* terms, but in *real* terms as well. The real appreciation of the

dollar between 1980 and December 1983 came to 45 percent. This means that U.S. firms are now offering their products on world markets at prices that on average have risen significantly relative to those of their competitors, when compared in a common currency.

Chart 2-2

Nominal and Real Effective Exchange Rate of the U.S. Dollar



Source: Board of Governors of the Federal Reserve System.

The year 1980 does not constitute a proper standard of comparison because the dollar had depreciated in real terms in the late 1970s: in 1980 U.S. firms were offering their products on world markets at prices that on average had fallen relative to those of their competitors, when compared in a common currency. If one takes the average over the period 1973–79 as the standard of comparison, then the real appreciation of the dollar as of December 1983 comes to 33 percent.

This real appreciation represents a large loss in competitiveness of U.S. producers. In response, foreign residents are more likely to buy their own country's products than to buy the more expensive U.S. exports, and U.S. residents and companies are more likely to buy cheaper imports than to spend their money on products made at home.

The effect on the trade balance is complicated by questions of timing. Although the dollar's rise began in 1980, it was not until 1981 that the negative effect on the trade balance began to show up. It was not until late 1982 that the balance on goods and services turned to deficit. This pattern is in line with historical experience. The immediate effect of a dollar appreciation is actually to *improve* the trade balance, because it takes fewer dollars to buy a given quantity of imports. As time passes, more and more customers, both domestic and foreign, switch to the less expensive foreign producers. The real volume of imports rises and of exports falls, and the trade balance worsens. The dollar had completed a real appreciation of 27 percent by late 1982, relative to the 1973–79 standard of comparison. If the usual pattern of recent years holds up, the full effect on the trade deficit will be reached in late 1984. Estimates indicate that every 1 percent real appreciation adds about $2 billion to the deficit at the peak. Thus the 27 percent real appreciation of the dollar translates into about $54 billion of the projected deficit in 1984. The continued appreciation of the dollar through 1983 portends further deterioration of the trade balance in 1985.

Effect of Debt Problems in Latin America

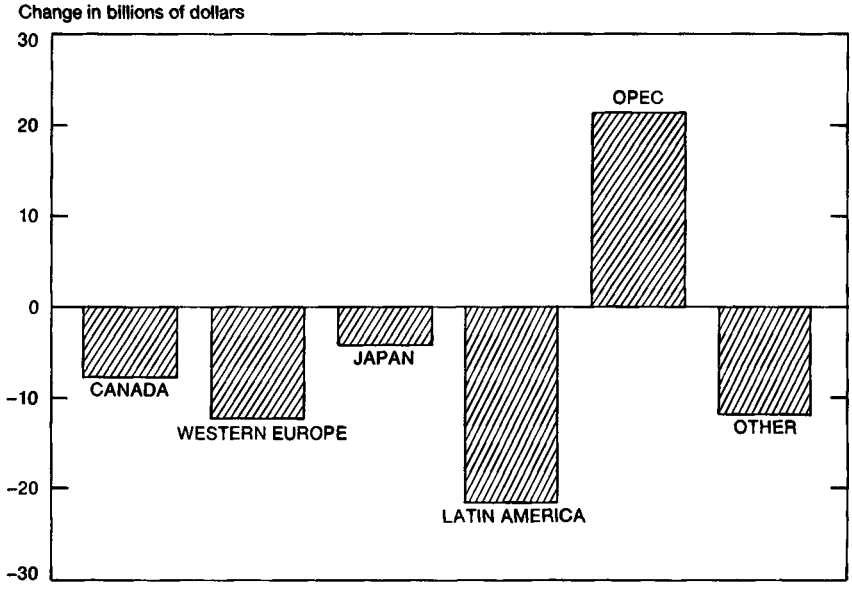
In the last couple of years, a number of highly indebted third world countries have experienced great difficulty meeting their debt obligations. They have had to take strong measures to reduce their imports and to boost their exports, in order to generate the foreign exchange to pay the interest on the debt. Many of these countries are in Latin America and conduct an especially high proportion of trade with the United States. Mexico alone accounted for 7.6 percent of U.S. exports in 1981. Seven of the most indebted Latin American countries together accounted for 13.9 percent of U.S. exports. The reductions in net imports that these countries have been obliged to undertake because of a shortage of foreign exchange are so great that the U.S. share looms large in the U.S. trade balance. Exports of U.S. industries such as farm and construction machinery have been particularly hard-hit.

As Table 2–1 shows, the U.S. bilateral trade balance with Mexico alone, which changed from surplus to deficit in 1982, registered a decline of $12 billion between 1981 and 1983. The U.S. loss in net exports to Latin America was about $21 billion. By comparison, the projected U.S. loss in net exports to Japan from 1981 to 1983 was only $4 billion, and to all of Western Europe about $12 billion, as illustrated in Chart 2–3. (The only source of improvement, U.S. trade with the Organization of Petroleum Exporting Countries (OPEC), is registering smaller deficits than in the past as a consequence of a decline in the demand for OPEC oil and in the dollar

price of oil.) As many of the Latin American debtors still have further economic adjustments to make, the loss in U.S. net exports to that region is not expected to diminish much in 1984.

Chart 2-3

Change in U.S. Bilateral Trade Balances From 1981 to 1983



Note.—Based on preliminary data for 1983.

Source: Department of Commerce.

Effect of Relative Cyclical Position of the United States

A country's level of imports varies with its level of income during the course of the business cycle. Thus world trade in general contracted in the 1980–82 period of recession.

As of late 1982, cyclical factors were a plus for the U.S. trade balance. In the first place, even when business cycles are synchronized across countries, the U.S. trade balance historically tends to improve in recessions and worsen in expansions. U.S. imports from other countries are usually more responsive to U.S. income than other countries' imports are to their incomes. In the second place, as of 1982, the recession had been more severe in the United States than for most trading partners. Real GNP had been on average almost constant in the United States from 1980 to 1982, but had grown at

TABLE 2-1.—*U.S. trade balance by country, 1980–83*

[Balance of payments basis, millions of dollars]

Country	1980	1981	1982	1983 [1]
Total	−25,544	−28,067	−36,389	−63,521
Canada	−1,277	−2,242	−9,198	−9,810
Western Europe	20,348	12,235	6,793	98
United Kingdom	2,970	−263	−2,352	−2,099
Germany	−243	−887	−2,688	−4,344
Other	17,621	13,385	11,833	6,541
Japan	−10,411	−15,802	−16,991	−19,886
Other developed countries	584	3,388	2,623	1,585
Latin American republics	5,860	7,481	−3,389	−13,911
Brazil	629	−676	−863	−2,491
Mexico	2,647	4,440	−3,808	−7,762
Venezuela	−740	−122	429	−2,328
Other	3,324	3,839	853	−1,330
OPEC (non-Latin America)	−37,476	−28,546	−10,978	−7,111
Other developing countries [2]	−4,584	−7,490	−7,908	−15,909

[1] Preliminary estimates.
[2] Residual excluding Eastern Europe and international organizations.

Source: Department of Commerce, Bureau of Economic Analysis.

an average annual rate of 1.4 percent in other industrialized countries. As of December 1982, U.S. industrial production was 12 percent below its previous peak, but industrial production in the other six major industrialized countries had fallen only 4 percent over the same period. Thus, the recent recession tended to reduce U.S. imports from the rest of the world more than it reduced the rest of the world's imports from the United States.

The cyclical position of the United States relative to its trading partners began to turn around rapidly in early 1983. In the third quarter of 1983 the United States reattained its previous peak in the level of economic activity as measured by industrial production; most of the major industrial countries had not yet done so. For the year, real GNP grew at an annualized rate 3.8 percent faster in the United States than among a weighted average of trading partners. Thus sometime in the middle of the year the two output paths crossed; the relative cyclical position was a positive factor in the trade balance in the first half of the year and a negative factor in the second half. The overall effect in 1983 was probably close to neutral.

With U.S. growth from 1983 to 1984 expected to continue well above that of its major trading partners, U.S. imports from other countries will rise faster than other countries' imports from the United States. The relative cyclical position becomes an increasingly negative factor for future trade balances. Estimates suggest that the relative cyclical position will account for $15 to $20 billion of the projected worsening in the trade deficit between 1983 and 1984.

Each of the three sources of the increase in the trade deficit—the exchange rate, the third world debt problem, and the relative cyclical position of the industrialized countries—warrants further analysis. In each case, the impact on U.S. trade may be the channel through which the problem is most forcefully brought to the attention of the American citizen; but each topic bears examination for its own sake. The exchange rate and related topics are considered in the remainder of this section; the cyclical position of other industrialized countries and the third world debt problem are considered in the second and third sections of the chapter.

SOURCES OF THE STRONG DOLLAR

In the 1950s and 1960s central banks were committed to maintaining their countries' exchange rates at fixed levels. This effort became increasingly difficult over time, due particularly to divergent inflation rates among countries. By 1971 the dollar had become unsustainably overvalued in the sense that the supply of dollars greatly exceeded the private demand for dollars. Central banks made up the difference, buying unwanted dollars in exchange for foreign currencies. The effort was abandoned in 1973 and the major currencies moved onto a system of floating, i.e., market-determined, exchange rates. When exchange rates float, there is no such thing as undervaluation or overvaluation, in the sense of excess market supply or demand for currencies. The value of the currency is whatever the market dictates that it should be.

The Floating Exchange Rate System

It is nearly impossible to imagine the world economy going through the past 10 years in the straightjacket of fixed exchange rates. Given the events of this period, notably the large changes in oil prices and the divergent macroeconomic policies among the industrialized countries, floating exchange rates have performed well.

Nevertheless, some critics argue that the system is not working as it should. They base their case on the large fluctuations that exchange rates have exhibited over the past 10 years—short-term variability as well as longer term swings such as the large rise of the dollar from 1980 to 1983. The critics also point to the fact that many exchange-rate fluctuations cannot readily be explained. Few believe that an early return to fixed exchange rates is possible, but there is sentiment in some quarters for government action to try to dampen the fluctuations.

Transactions costs in financial markets and government-imposed barriers to the flow of capital across national boundaries are today very low among most of the larger industrialized countries. The high international mobility of capital means that the foreign exchange

market is now dominated by capital transactions, not by trade transactions. The foreign exchange market is an asset market, like the stock or bond market; the exchange rate is the price of one currency in terms of another. It is not surprising that it is difficult to explain all the month-to-month ups and downs of the exchange rate, just as it is difficult to explain all the ups and downs in stock prices or bond prices. But most observers agree that an increase in the demand for dollar assets underlay the 1980–83 appreciation. An increase in the demand for a currency results in an increase in its price, for the same reason that an increase in the demand for any commodity results in an increase in its price.

Three reasons are often given for the recent increase in demand for dollar assets. They are (1) reduced expectations of U.S. inflation, (2) increased U.S. real interest rates, and (3) "safe-haven" and other possible portfolio shifts. We consider each in turn.

Effect of Reduced Expectations of Inflation

In the long run, the exchange rate tends to follow the differential trend in the domestic and foreign price levels. If one country's price level gets too far out of line with prices in other countries, there will eventually be a fall in demand for its goods, which will lead to a real depreciation of its currency.

Investors in international money markets are fully aware of the relationship between the price level and the exchange rate. If market participants think that a currency will be losing value in the future through inflation, then they will seek to avoid losses by immediately shifting their holdings out of that currency and into other assets. This attempt to sell the currency will cause its price to decline, even before the anticipated inflation occurs. For example, in the late 1970s the value of the dollar declined, in large part because of heightened expectations of U.S. inflation.

There is no way to know exactly what the market expects the inflation rate to be in the future, as opposed to what the inflation rate actually is. Table 2–2 shows three alternative measures of expected inflation: the actual inflation rate over the preceding year; a weighted average of actual inflation over the preceding 3 years (with more weight on the most recent years); and forecasts of future inflation made by Data Resources, Inc. Regardless which measure is used, there was a large drop in the expected U.S. inflation rate between 1980 and 1983. The market reduced its expectations of U.S. inflation in response to the firm anti-inflation policies of the Administration and of the Federal Reserve, to the 1980 and 1981–82 recessions, and to the actual decline in the observed inflation rate. As the table shows, expected inflation also fell in other countries between 1980

and 1983, but not as much. The differential between U.S. and foreign expected inflation declined.

The fall in the expected inflation differential is the first of the three reasons for the appreciation of the dollar. Investors who had previously shifted out of dollar assets because of fears of inflation, now shifted back. The increase in the demand for dollar assets caused an increase in the price of dollar assets, i.e., the exchange rate.

TABLE 2-2.—*Decreases in expected inflation rates and increases in real interest rates, 1980 to 1983*

Item	1980 average			November 1983			Change		
	United States	Trading partners [1]	Difference	United States	Trading partners [1]	Difference	United States	Trading partners [1]	Difference
	Percent per annum						Percentage points		
Long-term government bond rate	11.39	11.34	0.05	11.92	10.29	1.63	0.53	−1.05	1.58
1-year inflation [2]	13.54	11.38	2.16	3.19	5.17	−1.98	−10.35	−6.21	−4.14
Real interest rate 1	−2.16	−.05	−2.11	8.73	5.11	3.61	10.88	5.16	5.72
3-year distributed lag inflation [3]	11.67	9.35	2.32	4.90	6.46	−1.56	−6.76	−2.88	−3.88
Real interest rate 2	−.28	1.99	−2.27	7.02	3.82	3.19	7.30	1.84	5.46
DRI 3-year forecasted inflation [4]	10.05	8.56	1.49	5.29	5.90	−.60	−4.76	−2.67	−2.09
Real interest rate 3	1.34	2.77	−1.44	6.63	4.39	2.23	5.29	1.62	3.67

[1] Canada, France, Germany, Italy, Japan, and United Kingdom. Weighted by 1980 GNP.
[2] Change in the consumer price index (CPI) over the preceding 12 months.
[3] Weights beginning with the immediately preceding 12-month change in the CPI are .5, .3, and .2.
[4] Forecasts of CPI inflation over the subsequent 36 months. 1980 is the average of the four quarters' forecasts.
Sources: International Monetary Fund and Data Resources, Inc. (DRI).

Effect of Increased Real Interest Rates

The effect of the decline in expected inflation is only part of the story. If exchange rate movements were determined solely by inflation rates, the decline in expected inflation could explain the nominal appreciation of the dollar, but not the real appreciation of the dollar. The latter is the important concept for the question of the competitiveness of U.S. producers in world markets.

A second cause of the appreciation of the dollar between 1980 and 1983—and the major cause of its real appreciation—is the increase in the U.S. real interest rate. The real interest rate is defined as the nominal interest rate corrected for expected inflation. If nominal interest rates had come down as quickly as the expected inflation rate, then there would have been no increase in the real interest rate. But by the three measures in Table 2-2, the U.S. real interest rate rose between 1980 and 1983. This is typical of historical experience with monetary disinflation: it takes time for reduced expectations of infla-

tion to be reflected in reduced nominal interest rates. Real interest rates rose somewhat in other countries too, but not by as much. The real interest differential shifted in favor of dollar assets.

Because U.S. assets now pay a higher expected real rate of return than foreign assets, they have become more attractive to hold. The increase in demand for dollar assets arising from a higher real interest differential can explain an increase in the exchange value of the dollar, *above and beyond the increase that would be due to a lower expected inflation differential* in the absence of a change in the real interest differential. It explains why the dollar appreciated not only in nominal terms but in real terms as well.

Large real appreciations of a currency tend to be temporary. In the long run, the real value of the dollar is widely expected to fall back to a level that allows U.S. firms to compete in world markets on an equal basis. To believe otherwise would be to believe that U.S. producers can continue to be priced out of world markets, and the United States can continue to run 12-digit trade deficits, indefinitely. It is impossible to say when the dollar will come back down. The decline could start in 1984 or it could come later. To judge by past experience, even if there were no unforeseen developments, it could be as long as 10 years before the dollar returns to its long-run value.

It is possible to get a rough idea of how much above its long-run real value the dollar is currently, in the market's view, by looking at the long-term real interest differential in favor of the dollar. The long-term interest rate is the one reported in Table 2–2. The 10-year real interest differential is the compensation that investors get for holding assets in a currency that is expected to depreciate, in real terms, over the next 10 years. Taking the present 10-year real interest differential to be 3.2 points, the implication is that the market expects the dollar to depreciate, in real terms, at an average rate of 3.2 percent a year over the next 10 years, or 32 percent altogether (ignoring compounding). This arithmetic example would suggest that the market regards the dollar as currently being about 32 percent above its long-run real value.

In 1980 the real interest differential was *negative;* the market regarded the dollar as being about 23 percent below its long-run real value. Taking the increase in the real interest differential between 1980 and 1983 to be 5.4 points, the implication is that this factor by itself is sufficient to explain an increase in the dollar's value over this period of about 54 percent (without any change in its long-run real value). One can get different answers by choosing different horizons or different measures of the rise in the real interest rate. It is possible that none of the three alternative measures of expected inflation in Table 2–2 adequately reflects true expectations over the 10-year

horizon that is relevant. Nevertheless, it is evident that the real interest differential is capable of explaining the sort of real appreciation that the dollar has experienced.

Effect of "Safe-Haven" and Other Possible Portfolio Shifts

The third reason that is commonly given for the current strength of the dollar is the "safe-haven" effect: capital flees social and economic instability in other countries for the safety of the United States. There is some danger here of using the term "safe-haven" as a vague label for unexplained shifts in investors' portfolios. But one concrete interpretation is that investors have shifted their portfolios into dollar assets in response to the increased riskiness of investments in other parts of the world, Latin America in particular.

A decision by Latin Americans to move capital into the United States generates partly offsetting capital outflows from the United States to Europe and other countries. But in the eyes of some observers, investments in Europe have also become riskier, as a result of economic and political developments. Thus, a worldwide portfolio shift into U.S. assets in response to a change in relative risk may explain some part of the dollar appreciation. Other factors that are sometimes mentioned are the more favorable tax treatment for capital investment in the United States and the strength of the U.S. recovery in 1983.

The Source of High Real Interest Rates

If high real interest rates are the most important explanation for the high real value of the dollar, what is the explanation for the high real interest rates? This question is a subject of some controversy.

The real interest rate equilibrates the supply of saving, both private and public, to the demand for saving, in the form of investment. The real interest rate will rise either if the supply of saving shifts down or if investment shifts up. The contribution of the corporate income tax to the cost of capital facing firms has been reduced under this Administration. It is hoped that the increased incentive to firms will stimulate investment in the future. Unfortunately, as the second column of Table 2-3 shows, investment as a percentage of GNP was still lower in 1983 than in 1980, or than the average since 1970. Thus an upward shift of investment cannot be the sole explanation for the increase in real interest rates. A decrease in the supply of saving also must have played a major role. Indeed, there has been a decline in private saving, probably because of the recession, and a large decline in government saving, i.e., a large increase in the Federal budget deficit.

Although the decline in private and public saving is the most widely cited explanation for high real interest rates, other explana-

TABLE 2-3.—*Distribution of GNP by component, 1970–83*

[Percent]

Period	Personal consumption expenditures	Fixed investment	Government purchases of goods and services	Net exports of goods and services	Inventory investment
1970–79 average	62.4	15.3	21.0	0.6	0.8
1980	63.4	15.6	20.4	.9	−.4
1981	62.9	15.5	20.2	.9	.6
1982	64.8	14.3	21.1	.6	−.8
1983 [1]	65.2	14.4	20.9	−.3	−.2

[1] Preliminary estimates.

Source: Department of Commerce, Bureau of Economic Analysis.

tions are sometimes given. One is that an increase in uncertainty, usually ascribed to increased variability in the U.S. money supply, makes nominal dollar assets less attractive, so that they must yield a higher expected real return as a "risk premium" if they are to be willingly held. This argument could account for why real interest rates are high, but it cannot also be an explanation of the strength of the dollar. Any increased uncertainty attaching to dollar assets would cause a fall in demand for them and therefore in the price of the dollar, not a rise. Only increased uncertainty in *other* countries could induce the observed portfolio shift. Indeed that was one possible interpretation of the safe-haven argument discussed above.

THE CAPITAL ACCOUNT SURPLUS

The U.S. current account deficit in 1983 was nearly three times the previous record, which was set in 1978. The immediate connotation of the current account deficit, as of the trade deficit, is lost production in import-competing and export industries. But there is another way to look at it. The current account deficit is financed by a capital inflow from abroad. Foreigners have been investing in the United States, for example participating in the rising stock market and buying Treasury bills.

Relation to Crowding Out

This capital inflow has an important implication for the U.S. economy. Under the natural assumption that the capital inflow is not somehow offset by an equal decrease in domestic saving, it keeps real interest rates lower than they otherwise would be. As such, it allows those components of GNP that are especially sensitive to the real interest rate—housing, consumer durables, and business investment in plant and equipment—to be higher than they otherwise would be. Of course, the capital inflow has not been large enough to prevent real

interest rates from rising since 1980, as reported in Table 2-2, or investment as a share of GNP from falling, as reported in Table 2-3.

Table 2-3 also shows how two other components of demand, consumption and government expenditure, have risen since 1980 as a percentage of GNP. Indeed, it was the increases in these components of spending that drove up real interest rates and crowded out investment, as explained in Chapter 1. The important point regarding the inflow of capital into the United States from abroad is that it dampened the rise in the real interest rate, and thus reduced the degree of crowding out of investment. This bonus did not come free. The counterpart to the capital inflow is the appreciation of the dollar and the worsening of the trade deficit. In effect, much of the crowding out is now borne by the import-competing and export industries, with the consequence that less of it is borne by the construction, consumer durable, and capital goods industries.

In 1984 the U.S. current account deficit is forecasted to be roughly 40 percent the size of the Federal Government budget deficit. This means that a capital inflow from abroad is financing the equivalent of 40 percent of the budget deficit, and the crowding out of other sectors of domestic demand is reduced correspondingly. International capital flows of this magnitude are consistent with the increasing integration of world capital markets.

Benefits of the Capital Inflow and Dollar Appreciation

Is the inflow of capital and the associated strength of the dollar desirable? In one sense it is not; the appreciation of the dollar imposes great costs on import-competing and export industries in terms of lost income and employment. But the strong dollar has substantial benefits too. It keeps down the general price level, both directly through lower dollar prices of imports, and indirectly through lower prices for domestically produced goods that compete with goods produced abroad. The important question for policy is whether the costs of artificially reducing the capital inflow are greater than the costs of the existing trade deficit.

In the long run, expansion of potential GNP is limited by such factors as growth of the labor force and of the capital stock. Even in the short run, monetary policy puts a limit on the expansion of actual dollar GNP, because the Federal Reserve is currently committed to a monetary policy that avoids a resurgence of inflation. It follows that if the capital inflow were somehow shut off, the dollar allowed to depreciate, and export and import-competing industries stimulated to increase production, the gains in those industries would probably be offset by losses in other industries so as to leave total GNP unchanged. The mechanism whereby this would happen is an increase in the real interest rate; the industries that would lose include con-

struction and other interest-sensitive industries, whose customers are primarily firms undertaking investment.

There are two reasons why the investment sector should not have its share of the national pie reduced in favor of the export and import-competing sectors, as it would be if the capital inflow were shut off. The first is that there is no reason to think that the profitability of investment has fallen. Investment determines how big the national capital stock will be in the future, and thus how big output can be. It is true that a capital inflow, which constitutes the sale of assets to foreigners, represents a loss of future income in the form of capital earnings paid overseas. This loss in income is as great as the loss of returns to plant and equipment never built. Indeed if the United States continues to run current account deficits at anything like the rate forecasted for 1984, sometime in 1985 the Nation will pass from being a net creditor to being a net debtor, for the first time in 68 years. But from the viewpoint of maximizing domestic output and employment, it is better to have machines working in the United States, even if owned by foreigners, than not to have them at all.

The second reason for sharing economic expansion proportionately among sectors, to whatever extent possible, has to do with inflation. Expansion is often associated with an increase in inflation. Whether U.S. inflation is reignited depends, among many other things, on the distribution of expansion across sectors. It seems possible that industries that sell their goods and services primarily to the consumer and government sectors will begin to run into capacity constraints before the rest of the economy. At that point, any further increases in demand in those sectors are more likely to be reflected in higher prices than in higher production. In the industries that sell their products to firms undertaking investment, by contrast, there is still tremendous room for expansion. Some industries, such as nonresidential construction, have only begun to share in the recovery. The noninflationary payoff to expansion in these industries is large. But if the country had never had the capital inflow, the interest rate would be even higher, and production in the interest-sensitive industries would be lower without much gain in reduced inflation. The export and import-competing industries would be benefiting from a cheaper dollar. But they might now be starting to run into capacity constraints more quickly, with an adverse effect on the overall inflation rate.

MEASURES TO REDUCE THE TRADE DEFICIT

Four kinds of policy measures have at times been proposed to improve the trade balance: protectionism to keep out imports, foreign

exchange intervention to reduce the value of the dollar, capital controls with the same aim, and a change in macroeconomic policy. Each of these has costs. Of the four, protectionism is the most dangerous.

Protectionism

In a dynamic economy there are always some sectors expanding and others contracting because of technical change, shifting consumer tastes, and so forth. This is particularly true of an economy exposed to the rigors of competition in world markets. Earlier in its history, the U.S. economy, with its large domestic market, diversified economic resources, and geographic remoteness from Europe, was less dependent on international trade. But as domestic economies of scale were exhausted, as tariffs were reduced worldwide, and as declining transportation costs made geography increasingly irrelevant, international trade became increasingly important. The growth in exports allowed many U.S. sectors to expand rapidly that otherwise might not have been able to do so. Major examples in recent decades include agriculture, high-technology products, and services. But the increase in U.S. imports, which sooner or later must accompany any increase in exports, meant a loss in demand for other U.S. sectors. Some sectors that had previously had the domestic market to themselves found that their foreign counterparts could produce quality products at costs far below what they had become accustomed to receiving. Some major examples are the auto and steel industries.

The economic strains associated with long-term structural trends have always generated political pressure on the government to protect the adversely affected industries. In recent years temporary macroeconomic factors—the rise in unemployment during the last recession and the high value of the dollar—have exacerbated the economic difficulties of sectors vulnerable to import competition, and have intensified accordingly the political pressure to protect them. In addition, some exporters are finding that the strong dollar, and subsidies by some foreign governments, are making it more difficult to compete in foreign markets. This group traditionally forms a constituency for free trade but is now in some cases generating political pressures of its own for government action.

The Administration's stated policy is to resist these pressures. Protectionism usually succeeds in increasing the income of the sector seeking protection. However, it imposes costs on other sectors that more than outweigh the benefits for the protected sector. These costs are of three kinds. First are the effects on the purchasing power of consumers. A tariff or quota on imports cannot succeed in raising the prices received by domestic producers without at the same time raising the prices paid by domestic consumers. Second are the effects on other industries that use the output of the sector in question as an

input into their own productive process. Protection for the steel industry raises costs for the auto industry, protection for sugar growers raises costs for candy manufacturers, and so forth. Third are the effects on export industries. The dollars that foreign countries earn by selling to the U.S. market are useless to them unless, sooner or later, they spend them on U.S. exports. If the United States cuts off imports of foreign goods, foreigners will not have the dollars to buy U.S. exports. Usually it is difficult to identify the specific U.S. export industry that would benefit from increased trade. When the dollars come back to the United States, it will not necessarily be in the form of spending by the same foreigners that originally earned them, nor in the same year. But in one recent example, the connection is clear: China has indicated that if the United States cuts off imports of textiles from it, China will cease purchases of agricultural products from the United States.

The American public retains a broadly based commitment to the ideals of free trade. Nearly all political factions support free trade in principle. But there is a common fallacy that the arguments for free trade are theoretical arguments that lose applicability if other countries are not practicing free trade, that market distortions imposed by trading partner governments automatically warrant retaliation by the U.S. Government.

The desire to retaliate against a foreign government that is, for example, subsidizing exports, is understandable. Such retaliation has two effects, one predictable and one unpredictable. The predictable effect is to impose immediate costs, on domestic consumers and other domestic producers, that exceed the immediate benefits for the protected sector. It is irrelevant to this effect why foreign producers were underselling domestic producers, whether it was because of government subsidies, the level of the exchange rate, or lower labor costs. Export subsidies by foreign governments are in essence income transfers—i.e., foreign aid—to the importing country.

The unpredictable effect is the reaction of the foreign government. If the foreign government were to respond by removing its subsidies in exchange for the domestic country removing its measures, then both sides would be better off. All too often, however, the foreign government retaliates with more of the same. U.S. measures must be well targeted and explicitly temporary if they are to have the desired effect on foreign governments. There are no winners in a trade war.

The issue of the duration of protectionist measures is an important one. Frequently, measures that are originally adopted as temporary, such as quotas imposed to protect a domestic industry "just until it can get back on its feet," turn out later to be very difficult to remove.

Often protection encourages the industry to delay making needed adjustments, rather than to speed them up.

Foreign Exchange Intervention

A second measure that has been proposed to improve the trade balance is intervention in the foreign exchange market by the monetary authorities to force down the value of the dollar and thus to restore price competitiveness to American industry. At the beginning of August 1983, and later in the year, U.S. authorities did intervene on a small scale, buying marks and yen in exchange for dollars, in cooperation with monetary authorities in other countries. The intervention did not noticeably depress the value of the dollar, nor was it intended to. It is U.S. policy to intervene only to calm disorderly markets.

There are two kinds of foreign exchange intervention, known as *sterilized* and *unsterilized.* Sterilized foreign exchange intervention occurs when the central bank, at the same time that it is buying foreign currencies with domestic currency, sells Treasury securities in the market in order to take the domestic currency back out of circulation. The point of sterilizing the foreign exchange intervention is to keep the domestic money stock unchanged. This is the type of intervention the U.S. monetary authorities undertake when they do intervene.

Unsterilized intervention has the effect of increasing the domestic money supply. This would have a strong downward effect on the value of the domestic currency. But like any other increase in the money supply, it can be inflationary.

The effect of sterilized intervention is much less clear than the effect of unsterilized intervention. The 1983 summer intervention amounted to $254 million on the part of U.S. authorities. This was only 1 percent of the flow through the U.S. interbank foreign exchange market on a typical day in 1983. It was even less significant relative to the trillions of dollars in funds that investors around the world can commit to the foreign exchange market if they think that the exchange value of the dollar has been temporarily pushed below the true market level. Investors will move in quickly to exploit the potential profit opportunity, buying dollars, and thereby returning the price of the dollar to its previous level. This process ensures that, unless monetary authorities are prepared to intervene on a massive scale, any effects on the exchange rate will be transitory. After the Versailles Summit of 1982, a working group with representatives of the seven Summit countries was set up to study exchange market intervention. Its report, released in April 1983, concluded in part, that there was "broad agreement that sterilized intervention did not generally have a lasting effect."

If monetary authorities were prepared to intervene on a sufficiently massive scale, there could conceivably be some permanent effect on the exchange rate, even if the intervention were sterilized so as to leave the money supply unchanged. But to the extent that sterilized purchases of foreign currency were successful in reducing the value of the dollar, they would also be successful in raising the U.S. interest rate. The reason is that sterilized intervention does not leave market participants holding any more dollar currency than before; it leaves them holding more dollar Treasury securities than before. The interest rate would have to rise to induce the market to hold a greater quantity of Treasury securities, just as it does whenever the government sells large enough quantities of Treasury securities. The exporting and import-competing industries would be happy with the lower value of the dollar. But the capital goods, construction, and other interest-sensitive industries would be unhappy with the higher interest rate.

Capital Controls

The third kind of measure that has been suggested to reduce the U.S. deficit is the adoption of an international "interest equalization tax" or other restrictions on the international mobility of funds. The aim would be to shut off or reduce the inflow of capital and thus reduce the exchange value of the dollar.

The case against restrictions on the international flow of capital is analogous to the case against restrictions on the international flow of commodities, i.e., the case for free trade. Controls on international borrowing and lending interfere with the efficient allocation of capital among countries. The Administration is opposed to capital controls as a matter of general principle.

What effect would controls on capital inflow in the United States have in the present context? As with exchange market intervention, there are two possibilities. One possibility is that the controls would not even be effective. The experience of the United States in the 1960s, and of other countries today, is that there are many ways to circumvent capital controls. The alternative possibility is that the controls would be strong enough to reduce the capital inflow, and thereby reduce the value of the dollar. But if so, the reduced supply of saving from abroad would also raise the real interest rate and, once again, concentrate all the crowding out in the interest-sensitive sectors.

Macroeconomic Policy

The fourth kind of measure that has been suggested to reduce the U.S. trade deficit is a change in macroeconomic policy.

One possibility is a more expansionary monetary policy. This would clearly reduce the value of the dollar. In the short run, before prices throughout the economy had time to adjust, it would reduce the value of the dollar not only in nominal terms, but in real terms as well. Thus it would succeed in stimulating the demand for U.S. products. Unfortunately, a more expansionary monetary policy would also have adverse consequences for inflation. In the long run, when prices have had time to adjust, there would probably be no effect on the real exchange rate or real output, only an increase in the general price level. Because of the inflationary consequences, the Administration does not advocate using expansionary monetary policy to depress the value of the dollar.

On the other hand, for those who are concerned that monetary policy should be *tightened,* it is worth taking note of the undesirable consequences for the exchange rate in the short run. The fact that the price of the dollar in foreign exchange markets remained high throughout 1983 is a clear signal that the market had confidence in the Federal Reserve and that the money growth rate was not excessive.

The last possibility is a policy of reducing the budget deficit. Measures to reduce the budget deficit would lower real interest rates and thus allow the investment sector to share more fully in the recovery that is now taking place primarily in the government and consumer sectors. But, further, it would also lower the real value of the dollar and thus allow the exporting and import-competing sectors to share in the recovery as well. Of course, just as there are costs to the other proposed measures to improve the trade balance, there are also costs to reducing the budget deficit, whether by reducing government expenditure or by raising taxes.

DEVELOPMENTS IN OTHER INDUSTRIAL COUNTRIES

One of the challenges facing the world economy is the uneven geographical distribution of the recovery. Among the industrialized countries, only in Canada is real growth in 1984 expected to be as strong as in the United States. The implication for U.S. trade is negative: slower growth among trading partners than in North America means slower growth in U.S. exports than in U.S. imports. As Chart 2–3 shows, U.S. trade with both Europe and Japan is deteriorating.

EUROPE

The 1983 recovery in the United States and Canada is in the process of spreading to Europe as well. The United Kingdom and West Germany seem to have embarked on a path of renewed growth. Ex-

pansionary policies in France in 1981 postponed the recession there, but deteriorating inflation and balance of payments situations led to the adoption of austerity measures. Though the French trade balance improved in 1983, worries about inflation remained serious enough to keep a lid on expectations of future French expansion. In Italy and most of the smaller European countries there was no significant recovery for 1983 as a whole, although there were some signs of a pickup in economic activity toward the end of the year.

Effects on Europe of U.S. Economic Developments

Inflation has declined in all the larger European countries since 1980. This accomplishment has not been easy. The weakness of their currencies against the dollar has meant higher prices for oil and other imports in Europe. To limit the damage from both domestic and imported inflation, most European countries have accepted higher real interest rates than they would have accepted otherwise. Indeed, this is the mechanism through which recession was transmitted to Europe in 1981. Just as capital flowing into the United States has kept real U.S. interest rates lower and U.S. investment higher than they would otherwise be, so has capital flowing out of some European countries probably kept real European interest rates higher and European investment lower than they would otherwise be. In effect, the low U.S. rate of private and public saving is crowding out investment not just in the United States, but in the rest of the world as well.

The counterpart to a capital outflow is a current account surplus. This is the positive side of the ledger from the viewpoint of the European countries. Their depreciated currencies give their exporting and import-competing industries a competitive advantage in world markets. Until now, the Europeans have not on the whole considered that they were benefiting from the strength of the dollar and the U.S. trade deficit, despite their sizable share of it illustrated in Chart 2–1. Some have found it politically convenient to focus exclusively on the negative aspects of the exchange rate movement. The world current account discrepancy may also be part of the explanation: it is as if each country thinks it is running a deficit in goods and services, and someone else must be running the surplus.

In any case, in 1984 U.S. growth will lead to greater demand for European goods and thus is likely to help pull Europe out of its recession. The prospective reversal of the 1980–83 appreciation of the dollar is another development to which the Europeans can look forward. If the dollar depreciates, as many expect, the reduction in import prices will make the task of fighting inflation easier in Europe. Of course, the reversal in the gain in European competitiveness would also lead to an eventual reversal in the gain in net exports to

the United States. But it might allow European monetary authorities to bring down interest rates and stimulate domestic demand, at least in those countries such as West Germany and the United Kingdom that have relatively strong current account and inflation positions. The weaker-currency countries in Europe would find it difficult to expand on their own. The French franc, for example, might come under renewed pressure within the European Monetary System if a prospective world portfolio shift out of dollars were accompanied by a portfolio shift into marks.

Structural Problems in European Labor Markets

Regardless of what happens in the international financial markets, the problem of 18 million unemployed workers still plagues Western Europe. Indeed, in 1983 the unemployment rate continued to climb throughout Europe. In sharp contrast to the United States, Western Europe employs about the same number of workers, on an absolute basis, as it did in 1968. The most commonly cited cause of the bleak employment picture is excessive labor costs. Due to wage contracts indexed to consumer prices, and other less institutionalized social forces, real wages in Europe never adjusted in the 1970s to reflect the negative effect of oil shocks on the productivity of labor. Some observers argue that the greater rigidity of real wages in Europe than in the United States explains European governments' lack of enthusiasm for expansionary demand policies, despite low growth. For example, some European governments have taken steps to reduce government expenditure. They have also expressed the wish that the United States would reduce its budget deficit. Whether or not it is correct that expansion requires real wages to fall, it seems likely that any expansion of employment in Europe will greatly lag expansion of output. The implications for investment and long-term growth are also disturbing.

JAPAN

Economic performance in Japan has been impressive by the standards of most countries, even though the 1980–82 world recession was reflected in Japan as a clear slowdown in real growth. The Japanese trade account moved into substantial surplus again in 1983, as declining oil prices reduced the import bill and recovery in the United States and some others of Japan's trading partners boosted exports. Domestic demand remained somewhat sluggish.

Trade with the United States and Japanese Commercial Policy

As Table 2–1 shows, the U.S. trade deficit with Japan, known as a bilateral trade deficit, is larger than with any other single country.

Trade relations between the two countries are a source of special concern, and warrant a careful analysis.

To some extent the bilateral trade imbalance follows naturally from three other facts:

1. Japan usually runs a merchandise trade surplus with the rest of the world, as a consequence of its high rate of saving and its deficit in services.

2. The United States usually runs a merchandise trade deficit, as a consequence of its low rate of saving and its surplus in services.

3. Japan and the United States are the two largest market economies in the world and account for large shares of each other's trade.

There is an important reason why, even if Japan's overall trade balance were zero, it would still run a large bilateral trade surplus with the United States, and a very large surplus in manufactured goods in particular. Japan has few natural resources, and is dependent on imports for its supply of primary products, especially oil and other mineral fuels. It must earn the foreign exchange to pay for the oil by exporting other goods. If the United States were willing to sell enough Alaskan oil to Japan, for example, the bilateral trade imbalance would be reduced. As it is, Japan buys its oil elsewhere, running a large bilateral deficit with OPEC countries. And Europe normally runs a bilateral deficit with the United States. It is as though the United States sells to Europe in order to be able to buy from Japan, Japan sells to the United States in order to be able to buy from OPEC, and so forth around the circle of trading partners.

The important point is that it is neither necessary nor desirable that any two countries' bilateral trade be in balance, any more than it is necessary or desirable for an auto manufacturer to be in bilateral balance with its steel supplier, or a household with its plumber. One looks at the overall balance of a household, company, or country, not at bilateral balances, to see if it is earning more—from all its trading partners together—than it is paying out.

One widely held belief is that Japanese trade policy is responsible for the fact that Japan does not buy as much from the United States as the United States buys from it. Because the Japanese have accelerated tariff reductions agreed to in the Tokyo Round of multilateral trade negotiations, their tariffs are now lower than those of the United States and the European Community. But the Japanese maintain a number of nontariff barriers against imports that are a source of friction with the United States. These include import quotas for some agricultural products, and less tangible barriers to imports of manufactured goods, such as inspection requirements and government purchasing policies. Recent negotiations between the two governments in such areas as beef and citrus products, metallur-

gical coal and natural gas, cigarettes, and telecommunications equipment, have made some progress in reducing these barriers. But frictions remain.

Import barriers in every country protect those sectors that would not have the comparative advantage in a fair fight, at the expense of those sectors that would. In the Japanese case, it is agriculture that is easily the least competitive sector and therefore the most protected, with beef and citrus products the most highly visible examples. Japan already imports a lot of agricultural products; indeed, it is the largest customer of U.S. agricultural exports. But, in general, a high observed degree of "import penetration" does not preclude the existence of a high degree of protection. In fact, import penetration is often the cause and protection the effect, rather than the other way around. Many countries invoke national security arguments as a justification for protectionist measures; it should be noted that Japan does so on behalf of its agricultural sector.

It would be in the Japanese interest to reduce or remove the agricultural barriers because they can import these products far more cheaply than it costs to produce them domestically. Japanese liberalization would, of course, also be in the interest of U.S. farmers. It probably would not be in the interest of the U.S. manufacturing sector, however. In view of Japan's deficits in oil and services, it must run surpluses in its trade in other goods. If Japan were to start importing more agricultural products, its trade balance would not simply worsen by the same amount. Rather, the yen would eventually depreciate in order to generate the required trade surpluses in other sectors, i.e., manufactures. The point is that Japanese protectionism, like all protectionism, distorts the pattern of trade in such a way as to hurt both countries on net; but it is not a major source of the Japanese trade surplus.

The Yen Exchange Rate and Japanese Foreign Exchange Intervention

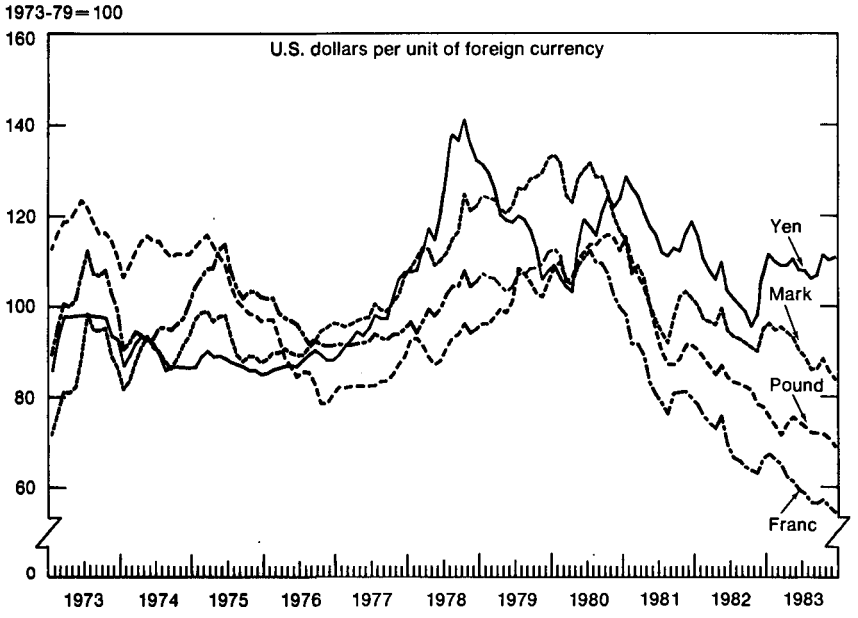
Another common claim is that an undervalued yen is the source of the trade problem. One version of this view is that the Japanese are deliberately keeping the yen undervalued, presumably either through foreign exchange intervention or through capital controls. No aspect of this view stands up well to the facts, however.

The value of the yen has indeed fallen in terms of dollars since 1980, though this movement was largely reversed in late 1982. As of December 1983, the yen had depreciated 3 percent, relative to the 1980 average. This depreciation has not been an offsetting reaction to different rates of inflation. Rather, the opposite is the case: because of superior inflation performance, the gain in Japanese competitiveness over this period has been 13 percent, as measured by consumer prices.

However, the dollar has appreciated against all foreign currencies, not just the yen. Chart 2-4 shows the value of the yen, mark, franc, and pound, each in terms of dollars. The mark, franc, and pound are all clearly down in value by more than the yen. In fact, relative to the 1973–79 average, the yen has actually *risen* in nominal terms by more than 10 percent against the dollar. It is difficult, given Chart 2-4, to single out the yen as the troublemaker.

Chart 2-4

Bilateral Exchange Rates



Source: International Monetary Fund.

The bilateral exchange rate between the yen and the dollar remains a source of difficulty for U.S. businessmen who compete with Japan in domestic or foreign markets. Have the Japanese intervened to keep the yen at a lower level against the dollar than it otherwise would be? Although the Japanese authorities practice occasional exchange market intervention, their intervention has, if anything, prevented a further decline of the yen relative to the dollar. The Japanese monetary authorities have long followed a policy of trying to dampen fluctuations in the exchange rate, known as "leaning against the wind." In 1977 and 1978 when the dollar was weak against the yen, the Japanese authorities bought dollars to dampen the down-

ward movement of the dollar against their own currency. In the period since April 1981, when the dollar has been strong against the yen, the Japanese have sold dollars to dampen the upward movement of the dollar against their own currency. The intervention does not appear to have been effective at moderating the swings in the yen/dollar rate. But it has worked in that direction.

Liberalization of Japanese Capital Markets

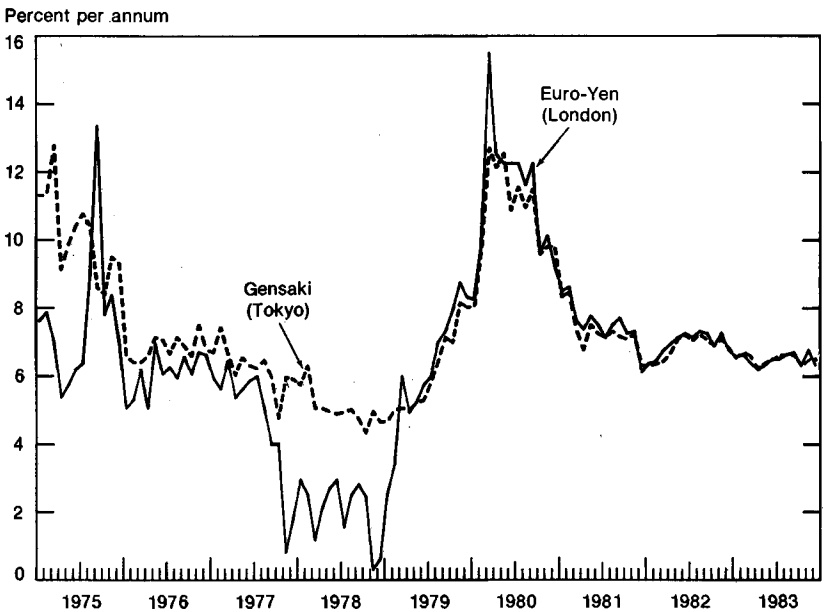
The cause of the decline in the exchange value of the yen against the dollar since 1980 is the flow of capital out of Japan and into the United States. A primary reason for this capital flow is the high real U.S. interest rate. But it has been suggested that Japanese restrictions on the international flow of capital may also be a factor.

Japan, like the United States and European countries, maintained into the 1970s controls on the international flow of capital that had originated under the fixed exchange rate system. After the shift to floating exchange rates in 1973, the United States, West Germany, and the United Kingdom, one by one removed their capital controls. As recently as 1978, Japan still retained formidable barriers to both inflow and outflow. For example, foreigners were not allowed to hold many Japanese securities, such as gensaki, a 3-month repurchase agreement. Chart 2–5 shows the Tokyo gensaki interest rate and the London 3-month Euro-yen interest rate. The fact that the Tokyo gensaki rate exceeded the London Euro-yen rate in 1978 is clear evidence that capital controls were operating to reduce capital inflow into Japan. Otherwise foreign residents would not have been willing to hold Euro-yen in London when a higher interest rate was available in Tokyo. The yen was then at an all-time high against the dollar and the Japanese were trying to dampen its appreciation by keeping capital from flowing into the country.

When the yen depreciated rapidly in 1979, the Japanese moved quickly to remove controls on capital inflow, making it possible for foreigners to hold Japanese securities. Japan's Foreign Exchange and Foreign Trade Control Law of December 1980 established a presumption that international capital flows are permitted. Chart 2–5 shows that the *de jure* liberalization took place *de facto* as well. The differential between the gensaki and Euro-yen rates dropped sharply. In fact, the differential, though small, became negative in 1979 and 1980. This is evidence that Japanese controls on the inflow of capital were liberalized more quickly than controls on capital outflow. If some barriers to capital outflow had not remained, Japanese investors would not have been willing to hold assets in Tokyo when a higher interest rate on comparable yen securities was available in London. Thus those capital controls that remained were more a force keeping capital inside the country than outside, and thus more a

Chart 2-5

Interest Rates on the Yen



Source: Morgan Guaranty Trust Company of New York.

force keeping the yen value up than keeping it down. By 1983 the gensaki-Euro-yen differential was so small as to suggest that Japanese capital markets for short-term negotiable instruments were as open as, for example, European capital markets.

The governments of both Japan and the United States recognize that the yen/dollar exchange rate remains a source of concern, particularly insofar as it heightens protectionist pressures in the United States. One proposal is that the Japanese government take positive action to bring about some capital inflow. In 1984 some Japanese government-affiliated agencies plan to issue foreign currency bonds in New York. However, the governments of both countries feel that more direct measures, such as reinstatement of some of the controls on capital outflow, even if they were effective, would be counterproductive to the longer term goal of completing the integration of Japan into world financial markets.

In the past the yen has not occupied a place in world financial arrangements that is commensurate with Japan's importance in world

trade. For example, the yen's share in world official holdings of foreign exchange, though it has risen rapidly, still falls short of, not only the dollar's share, but the mark's share as well. Similarly, the percentage of Japan's exports that are denominated in its own currency, though it has risen rapidly, is still below the corresponding percentage for other large industrialized countries. At the time of the President's trip to Japan in November 1983, the Japanese agreed to promote increased "internationalization" of the yen. This includes such concrete measures as relaxing the rules that previously restricted use of the yen forward exchange market to transactions arising from foreign trade. There is no reason to expect such measures to have a noticeable upward effect on the value of the yen in the short run. Nevertheless, in the long run an enhanced role for the yen in world financial markets is considered by some to be desirable in that it reflects Japan's importance in the world economy, and is hoped to contribute to some increase in its exchange value against the dollar as well.

A related goal is continued deregulation of *domestic* Japanese capital markets, which lags behind deregulation in the United States. Here the major beneficiary of liberalization would be Japanese households, who in the past have not been paid competitive interest rates on their savings. But it is also sometimes argued that, if interest rates rose in Japan, there might be a decline in capital outflow from Japan and an appreciation of the yen.

Changes in the Japanese-U.S. Trade Balance

The Japanese government is not using either foreign exchange intervention or capital controls to keep the yen "undervalued." Indeed, it would be more accurate to say that the dollar is "overvalued" than to say that the yen is "undervalued." The other major currencies are down against the dollar to a greater extent than is the yen. One would expect that the U.S. bilateral trade balance with Japan would not have worsened more than the bilateral trade balance with other countries.

This is indeed the case. As Chart 2-3 and Table 2-1 show, the bilateral balance with Japan has worsened. But the deterioration in the U.S. bilateral trade balance with Japan represents less than one-eighth of the total 1981–83 decline in the overall U.S. trade balance. The deterioration in the bilateral balance is less severe, as a proportion of U.S. imports from Japan, than the 1981–83 deterioration in the overall U.S. trade balance. The deterioration in the U.S. bilateral trade balance with Japan is also far less severe, on either an absolute or relative basis, than the deterioration in the U.S. bilateral trade balance with Mexico over the same period.

This is not to say that U.S. trade with Japan does not remain a source of concern. The point is that the trade balance with Japan has deteriorated for the same reasons as the balance with other countries.

THIRD WORLD DEBT PROBLEM

The decline in the U.S. trade balance is good news for many trading partners. In the cases of Canada, Japan, and Europe, it represents a pickup in exports that has helped to pull their economies out of recession. But in the cases of the third world countries, particularly those in Latin America, the changing pattern of trade represents something quite different. As seen in Chart 2-3, the decline in the U.S. trade balance with Latin America is much greater in magnitude than the decline in the U.S. trade balance with other parts of the world. The increase in their trade balances is not good news for the Latin Americans; it is the reverse. It is a symptom of the severe debt problem that afflicts most of these countries, and many in Asia, Africa, and Eastern Europe as well, and of the wrenching adjustments that they are finding it necessary to undertake.

THE NATURE OF THE PROBLEM

Recent Developments in the Debtor Countries

Although there had been previous isolated cracks in the international debt terrain, it was not until 1982 that the problem erupted in dramatic proportions. In August of that year, Mexico announced that it was unable to meet its debt obligations to foreign creditors, although it was taking steps to rectify the situation. In response, the U.S. Government mounted a rescue operation, involving the creditor banks, the International Monetary Fund (IMF), and other creditor governments. The package included a strict program of adjustment for the Mexican economy and a rescheduling of much of the debt. Nervous banks began to cut back lending to other countries that appeared to be heavily indebted, with Brazil the most obvious target. As long as the banks had been willing to continue lending, the debtor countries had had the foreign exchange necessary to continue servicing their accumulated debt, i.e., making scheduled payments of interest and amortization of principal. As the banks cut back, the debtors found debt-service obligations increasingly difficult to meet. One by one, Brazil, Argentina, and many other debtor countries found it necessary to seek debt relief from their creditors, while implementing programs of economic adjustment monitored by the IMF.

The most important result of these programs of adjustment has been a sharp improvement in trade balances, so that interest pay-

ments do not have to be met entirely out of new loans, but can be largely met out of foreign exchange earnings from international trade. In 1983 the adjustment efforts of several of the most troubled debtors were successful to the point of achieving significant surpluses in their balances of trade. By the end of the year the situation looked considerably brighter, especially in Mexico. If all concerned parties continue their efforts, and there are no unforeseen calamities, the system can be expected gradually to work its way back to normalcy.

The increases in debtors' trade balances have been achieved largely by cutting imports. Cutting imports is the only practical way of achieving a large increase in the trade balance in a short period of time. But, past a certain point, it is difficult to sustain. It means that the population's standard of living is falling, inventories of raw materials and spare parts have been exhausted, and investment is at a standstill. In some cases, inadequate supplies of imported inputs have forced firms to curtail production, even firms producing for export markets. Beginning in 1984 further progress will depend most critically on expansion of exports, rather than further contraction of imports. Only then will adjustment be compatible with a world of economic growth.

Liquidity Versus Solvency

Central to an analysis of the current debt problem is the distinction between liquidity and solvency. Because countries do not go out of business, as do firms, the distinction is not absolute but is rather a matter of degree. A country might be defined as insolvent if it is likely to find servicing its debt increasingly difficult over time, and eventually to have to default. A country is merely short of liquidity if its economy is believed to be fundamentally sound and its debt-servicing difficulties are believed to be temporary. In that case, continued lending to keep the country liquid is justified, so as not to cause unnecessary damage to the local economy, and so as not to risk more drastic solutions, with their adverse economic and political repercussions. In the case of insolvency, however, there would be no point in the country making it through another year, only to face the same difficulties next year that much further into debt; more drastic solutions would be called for.

Argentina, Brazil, and Mexico are the three debtor countries that have dominated the discussion, not only because of their size, but also because of the acuteness of their financial distress. One indication of their difficulties is that in all three cases, debt-service obligations (interest and amortization, including short-term debt, as originally scheduled) exceed 100 percent of exports of goods and services. This means that even if the countries could somehow cut their imports to zero, their export earnings would not be sufficient to serv-

ice the debt in the absence of continued new lending. But many healthy, developing countries borrow abroad to finance their development, and would be hard put to meet their debt obligations if for some reason they were suddenly cut off from new lending. Furthermore, debt-service numbers are particularly sensitive to yearly fluctuations in interest rates. A longer term measure of "how far in over their heads" the debtor countries have gotten is the ratio of debt to exports. This ratio is reported in the first row of Table 2–4 for Argentina, Brazil, and Mexico taken together. The ratio increased rapidly between 1981 and 1982, and now exceeds 300 percent. If the debt/export ratio were expected to continue to increase in the future, the countries could be considered insolvent.

ORIGINS OF THE PROBLEM

The solvency issue is analyzed below. But to evaluate the future, it helps first to recount the past.

The 1970s: Incurring the Debt

The present pattern of lending to third world countries, with its heavy concentration on bank lending, is only 10 years old. In the aftermath of the 1973–74 oil price shock, banks "recycled" billions of dollars of savings that the OPEC countries could not in the short run absorb. World inflation rates were high and real interest rates very low—even negative—through the remainder of the decade, signaling a high level of savings in search of investment opportunities. The funds went, not to all the third world countries that were having difficulty paying their higher oil bills, but mainly to those judged to have good prospects for future growth, and thus good prospects for full repayment of the debt.

This lending seemed sensible at the time. The high world inflation rates and low real interest rates meant it was advantageous for the countries in question to borrow, and that servicing the debt did not look difficult. A high level of indebtedness is not necessarily a source of concern, as long as the borrowing countries are expected to grow. Corporations whose income is expected to grow in the future often have a high ratio of debt to earnings. Countries do the same. The United States in the 1880s had debt/export ratios as high as those in Table 2–4. Nor were the banks' expectations of high growth rates in the debtor countries in the 1970s disappointed. The rate of growth of exports from 1975 to 1980 was as great as the rate of growth of debt, in Argentina, Brazil, and Mexico taken together. Thus the key measure, the debt/export ratio, did not rise during this period.

Prior to 1970, private capital flows to third world countries had predominantly taken the form of foreign direct investment, bonds issued for specific projects, and short-term trade credit for specific

imports. The pairing of loans to projects has the virtue of ensuring that the sum of the lending equals the sum of the investment. The bank lending of the 1970s was more often for general balance of payments financing. There is nothing wrong with this in itself. But it allowed total lending to exceed total project investment. The fact that a large number of banks were involved, and that good aggregate statistics on lending did not at first exist, added to the confusion. The banks may not have realized the extent of their collective investment.

The debtor countries also made policy mistakes. The mistakes fall into two broad categories: overexpansion of demand and overvaluation of currencies. Both kinds of mistakes led to excessive trade deficits and therefore excessive borrowing to finance those deficits. But beyond this observation, generalization is difficult. In many countries the government sector expanded too quickly, especially in the form of credit to inefficient state enterprises. Often government deficits were monetized, and the currency was not devalued fast enough to keep up with inflation; then the loss in competitiveness of export industries led to trade deficits that were financed by borrowing from abroad. The end result was the same as when the governments financed their deficits by borrowing from abroad directly. Though much of the money was used for profitable investment, some went to unwise projects, to consumption, and to capital flight out of the countries involved.

In some countries, a capital inflow and consequent real appreciation of the currency were the unintended effects of favorable developments. For example, the discovery of oil in Mexico brought about an increase in indebtedness—financing the investment necessary to develop the oil. Furthermore, the monetary inflow added to inflationary pressures, and the loss in price competitiveness had an adverse effect on the exports of other industries, especially the manufacturing sector on which previous hopes for growth had been pinned.

In other countries the simultaneous adoption of an array of monetarist and free market policies did not prevent indebtedness. Monetary stabilization made the country's assets seem attractive to hold, trade liberalization increased the trade deficit, and removal of capital controls allowed foreign capital to flood in. In several countries, real overvaluation of the currency was an intentional element of the plan to reduce inflation quickly. The magnitude and duration of the loss in export competitiveness that followed were not intentional.

1980–82: A Change in the International Environment

As of 1980, there was little reason to doubt the ability of most of the debtor countries to sustain high rates of growth. If the international economic environment had remained favorable, it is possible that the debtor countries could have gone for years without having to

adjust their policies. But beginning in 1980, they were buffeted by several blows not of their own making. First, inflation rates fell and real interest rates rose in the United States and in other countries. Because the percentage of the debt that was short term had been increasing, and most of the rest carried floating interest rates, the rise in the market rate of interest showed up quickly in debt-service requirements.

Second came the 1980–82 world recession. The export earnings of the debtor countries fell sharply. The demand for the primary products that many of the countries produce has always been highly sensitive to income in the industrialized countries. The years 1981 and 1982 saw sharp drops in the prices of these products relative to goods produced in the industrialized countries. In addition, the nontraditional exports that had grown rapidly in the 1960s and 1970s were hurt by the increased application of protectionist measures in the industrialized countries. Protectionist measures sometimes operated to limit exporters to their past levels of sales, in which case exports from the "new arrivals" in the market were hurt disproportionately. In Argentina, Brazil, and Mexico, total export revenue fell about 8 percent in 1982 in dollar terms.

A third factor that contributed to the debtors' loss in export revenue was the large appreciation of the dollar. The strength of the dollar was in particular a source of the fall in primary product prices when expressed in dollars, which is the appropriate measure because most of the debt is denominated in dollars.

A fourth factor for some countries was the decline in dollar oil prices after 1981 (which in turn derived partly from the other three factors). The oil price decline of course helped the oil-importing countries, which are the majority. But it added to the list of problem debtors a number of oil-exporting countries, OPEC members such as Venezuela and Nigeria, as well as nonmembers such as Mexico.

The loss in export earnings attributable to the world recession shows up immediately in the denominator of the debt/export ratio. The higher interest payments show up immediately in the current account deficit, which in turn shows up over time as a rise in the numerator of the debt/export ratio. As seen in Table 2–4, the ratio rose sharply in 1982.

It is worth noting that virtually all the major Latin American countries got into trouble, the oil exporters as well as the oil importers, those that followed monetarist and free market policies as well as those that increased the money growth rate and expanded the role of the government in the economy. This suggests that in retrospect the key factor, which they all shared, was getting deeply into debt in the first place.

TABLE 2–4.—*Debt/export ratios for Argentina, Brazil, and Mexico aggregated, 1974–83*

Item	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
(1) Debt/export ratio	2.1	2.6	2.8	2.7	2.8	2.7	2.4	2.7	3.2	3.2
	Billions of dollars									
(2) Interest payments	2.7	3.4	4.3	4.9	6.6	10.3	15.1	22.6	28.4	26.2
(3) Trade deficit [1]	7.6	8.9	5.0	0.6	1.8	6.6	10.4	7.8	−6.5	−20.3
(4) Debt [2]	43.4	52.5	63.9	75.7	95.0	118.7	143.2	185.1	205.3	213.9
	Percent									
(5) Implied interest rate (2)/(4)	6.2	6.5	6.7	6.5	6.9	8.7	10.5	12.2	13.8	12.2
(6) Trade deficit/debt (3)/(4)	17.5	17.0	7.8	0.8	1.9	5.6	7.3	4.2	−3.2	−9.5
(7) Current account deficit/debt (5)+(6)	23.7	23.4	14.5	7.3	8.8	14.2	17.8	16.4	10.7	2.8
(8) Change of exports to next period	−2.8	16.6	22.8	18.6	30.1	34.6	16.5	−7.9	4.6	11.5

[1] Trade deficit on goods and services excluding interest.
[2] Gross debt including short-term debt.
Sources: International Monetary Fund, Morgan Guaranty Trust Company of New York, and Council of Economic Advisers.

It is, however, true that South Korea and other Asian countries that had become as indebted as many of the Latin American countries, as measured by debt/output ratios, encountered less severe problems in the 1980s. What distinguishes South Korea and other Asian debtors from most Latin American countries is not the degree of government intervention in the domestic economy, but the degree of export-orientation. Exports of goods, services, and private transfers are 44 percent of GNP in South Korea, as the result of 20 years of vigorous export promotion. By contrast they are 17 percent of GNP in Mexico, 16 percent in Argentina, and just 8 percent in Brazil. Indeed, of the major Asian debtors, the one to run into the most serious problems, the Philippines, also has the lowest ratio of exports to output. While many other factors are relevant, a debtor country with a high ratio of exports to GNP is less likely to get into debt-servicing difficulties than an otherwise similar debtor country.

WILL DEBT/EXPORT RATIOS IMPROVE?

Argentina, Brazil, and Mexico are all expected to receive new loans in 1984. One point of view is that this is throwing good money after bad, that the loans will never be repaid, that the problem is one of insolvency rather than illiquidity. According to this view, the present case-by-case approach is unrealistic, and should be replaced by some sort of general write-down of the debt. This view is accompanied by widely ranging degrees of sympathy for the debtors. Some observers call for a new agency to buy the written-down debt and extend more favorable terms to the debtors. Others believe that the countries should be left to fend for themselves.

An evaluation of the insolvency versus illiquidity issue is critical. The question is what debt/export ratios are likely to do over the course of the next decade. Ever-rising debt/export ratios imply insolvency. Ratios that decline over time, and eventually reach reasonable levels, imply that the difficulty is only one of liquidity.

The debt/export ratio will decline if the rate of growth of debt is less than the rate of growth of exports. The growth of the debt can be identified with the current account deficit. (In the past, current account deficits could also to some extent be financed by foreign direct investment and temporary drawing-down of international reserves. In the long-term future, a successful resolution of the debt problem would include a revival of foreign direct investment. But, as of 1984, in many countries there is now little likelihood of a continuation of these flows.) The current account deficit consists of interest payments plus the deficit in merchandise trade and non-interest services and transfers. Rows 5 and 6 in Table 2–4 report interest payments and the trade deficit, respectively, each as a percentage of the level of the debt. If the expected rate of growth of exports is greater than the sum of these two numbers, i.e., greater than the current account/debt ratio reported in row 7, then the debt/export ratio can be expected to decline over time. This criterion was easily met by the 25 percent average annual growth rate in exports that prevailed from 1975 to 1980.

The sharp increases in interest rates after 1980 made the criterion much more difficult to meet. If the trade balance had remained in deficit or had been zero, the criterion would not now be met. But Argentina, Brazil, and Mexico succeeded in switching their trade balances from deficit to surplus by 1983. Comparing expected export growth with the average interest rate being paid on the debt (the number in row 5, 12.2 percent in 1983) alone would be too strict a criterion. It would not give the countries credit for the adjustment they have accomplished. But the total current account deficit/debt ratio in row 7 was only 2.8 percent in 1983. This is a more reasonable target against which to compare the rate of export growth.

What is export growth expected to be in coming years? The answer depends on the growth rate in the industrialized countries, among other factors. Even assuming the industrialized world's real growth rate has now returned to that of the late 1970s, there is little likelihood of the growth rate of export earnings returning soon to the 25 percent average annual rate of the earlier period. The quantity of debtor country exports demanded is expected to respond less favorably to this recovery than to past recoveries, in part because in recent years the debtors had come to rely to a greater extent on exports to each other and to OPEC, and strong recovery in the near

term is expected only in the industrialized countries. But, allowing for some improvement in the dollar prices that the debtor countries are paid for their products—and the improvement might be large over the next few years if the dollar depreciates—there does not seem to be much doubt that the rate of growth of export revenue will exceed 2.8 percent by a comfortable margin in 1984 and into the indefinite future. Thus there is not much doubt that the debt/export ratio will decline. Eventually, as export growth and lender confidence are restored, the debtors can be expected to return to the trade balance deficits appropriate to developing countries.

SHARING THE BURDEN

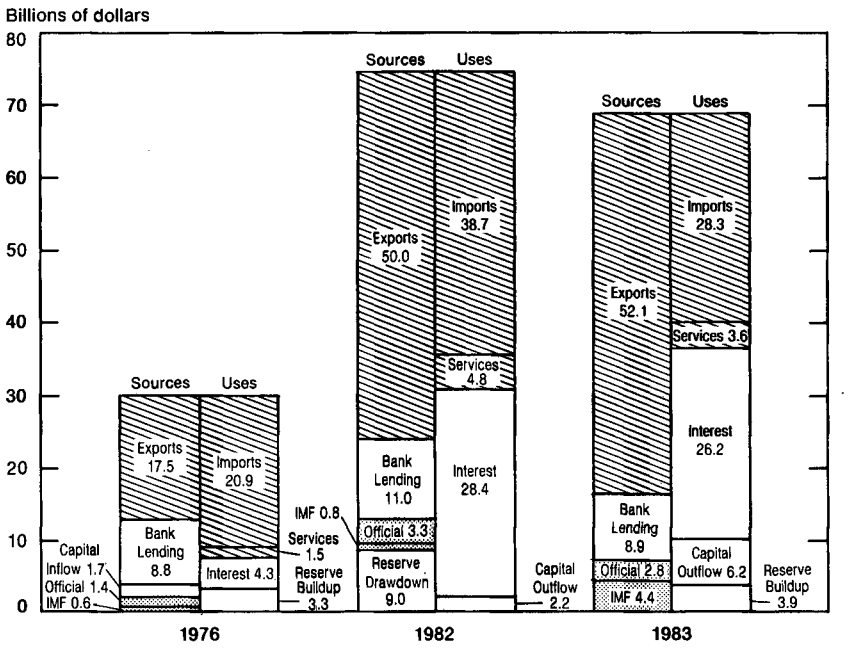
Because the debt problem seems to be one of liquidity rather than one of solvency, i.e., continued lending will permit exports to grow more quickly than the debt burden, it is important to keep the lending going. Chart 2-6 illustrates the amount of foreign exchange available to Argentina, Brazil, and Mexico taken together. In the 1970s imports exceeded exports, that is, they ran trade deficits. Because the prospects for future growth looked good, voluntary private lending was sufficient to finance both the trade deficit and interest payments on previously incurred debt. By 1983 interest payments had become very large and—because of worsened prospects—banks had become reluctant to extend enough new lending to cover the interest payments, let alone any trade deficit. It was only as part of a cooperative effort among the debtors, banks, industrialized country governments, and the IMF that the debtor countries were able to get through the year. The next four subsections consider in turn each of the four parties to this cooperative effort.

Adjustment by the Debtor Countries

By far the greatest share of the burden was borne by the debtors themselves. Between 1981 and 1983 the three Latin American countries taken together succeeded in improving their aggregate trade balance in goods and services (excluding interest) by $28 billion. In the larger debtor countries, most of the change was accomplished by cutting imports sharply, mainly by contracting income and expenditure, although partly by devaluation and other methods. From 1981 to 1983 imports were slashed about 52 percent in Argentina, 30 percent in Brazil, and 66 percent in Mexico. All three countries have had to suffer severe recessions in order to reduce expenditure on traded goods. Real GNP has been falling rapidly. In these and other countries, unemployment is very high, and the standard of living of most of the population, including the middle class, has deteriorated sharply.

Chart 2-6

Sources and Uses of Foreign Exchange: Argentina, Brazil, and Mexico Aggregated



Notes:
Capital Inflow/Outflow: Nonbank long-term lending from private sources and non-debt-creating flows (such as foreign direct investment); net (of capital flight).
Official: Long-term borrowing from official sources, official transfers, and reserve-related liabilities (such as loans from the Bank for International Settlements).
IMF: Use of Fund credit.
Services: Net payments for services, excluding interest, less private transfers.
Source: International Monetary Fund.

Calls for solutions to the debt problem through adjustment by the debtor countries must acknowledge the fact that an enormous amount of adjustment is already taking place. Indeed, it was the large swing in the trade balance from deficit to surplus that allowed the debt/export ratio to begin falling.

New Bank Lending

As can be seen from Chart 2–6, the increase in the debtor countries' trade balances in 1983 was still not enough to pay for all of the interest they owed. In other words, most of them ran current account deficits. The largest source of financing of the deficits was the banks. New bank lending to Argentina, Brazil, and Mexico in 1983 was about $9 billion.

The role of the banks has been controversial. One commonly expressed point of view is that the banks made unwise loans, and they now deserve to suffer the consequences. A related viewpoint is that, regardless of whether in the 1970s one could have foreseen the debt crisis, a necessary part of the discipline of the marketplace is the taking of losses when things go wrong, unmitigated by help from national or supranational government institutions. Proponents of this philosophy will be skeptical of solvency calculations like those in Table 2–4. They may ask why it is necessary for the IMF, and the United States and other governments, to get involved, if the loans are profitable and repayable.

In the current international financial system, an individual bank, particularly one of the many smaller banks, has an incentive to discontinue new lending to a problem debtor. A new loan adds to the amount of capital the bank has at risk. Yet—if the bank's share is small relative to the total—a new loan does not visibly add to the debtor's ability to remain current in its payments on its previously incurred debts. If all the banks, as part of a package, continue new lending, this does add significantly to the ability of the country to service its debt on schedule. But an individual bank has no incentive to take into account that its actions might contribute to the failure of the package, and thus precipitate the default that it fears. Left to itself, the bank would be a "free rider," allowing the quality of its portfolio to benefit from the new loans of others, without putting up any new money itself. This free-rider problem is one justification for a role for the IMF and other public institutions.

The International Monetary Fund

The IMF is the third of the four legs, after the debtors and the banks, on which responsibility for managing the debt problem rests. In 1983 the Administration sought, and eventually won, congressional approval for the U.S. share of an increase in resources for the IMF.

The IMF lends money to any of its 146 member governments that are in balance of payments difficulty. No member has ever defaulted on an IMF loan. In the past the two biggest borrowers have been the United Kingdom and the United States.

The IMF has increased total lending in the 1981–83 period of financial distress in the third world and tight liquidity worldwide, as it did in the aftermath of the 1973 oil shock. However, the magnitude of the resources supplied by the Fund is often less important than its role as a catalyst. In the past this has meant giving a "seal of approval" to countries that have agreed to follow particular programs of needed policy changes, enabling them to borrow from banks and other sources. In the financial packages of the past 2 years, the Fund

has gone a step further. In these cases, as a precondition to the IMF stamp of approval to a particular debtor country and to the availability of IMF resources, not only must the country agree to a set of policies, but the banks to which the country is indebted also must agree to extend new loans. In this sense, the IMF is "bailing in" the banks, rather than bailing them out. Chart 2–6 shows that the total amount of Fund lending to Argentina, Brazil, and Mexico in 1983, about $4 billion, is less than half the amount of new bank lending, which is in turn less than the reduction of net imports achieved by the three countries.

In recent years, the Fund, recognizing that many countries' balance of payments problems require more than short-term stabilization policy and short-term financing, has at times extended financing for longer term structural adjustment. However, longer-term development loans remain the special province of the Fund's sister institution, the World Bank. Neither institution offers substantially concessional interest rates. Only the World Bank affiliate, the International Development Association (IDA), provides "soft" loans to poor countries. The recipients of IDA loans are not the debtors with which this chapter has been concerned. The debtors were rapidly growing economies until recently. Most of the IDA recipients are African and Asian countries that are poor and have always been poor. They do not have big debt problems because banks in the past have not been willing to lend to them.

Thus the purpose of the IMF is neither to bail out banks, nor to give foreign aid. The IMF is rather, as the President has described it, "the linchpin of the international financial system."

The Role of National Governments

The fourth leg in the cooperative effort to resolve the debt problem, after the debtor countries themselves, the banks, and the IMF, is the governments of the creditor countries. Besides supporting the IMF, there are two ways in which the governments play a crucial role in the process: direct credit and trade policy.

In a variety of ways, credit is extended directly by governments to the debtors that are the most afflicted and the most important to them. First, a crisis sometimes comes up so quickly that an IMF package cannot be assembled in time. Then the Bank for International Settlements (the "central bank for central banks" in Basle, Switzerland), or monetary authorities in the industrialized countries acting on their own, may extend a short-term "bridge loan," to tide the debtor over until the longer term financing and adjustment program are in place.

Second, most industrialized countries have government trade credit agencies that grant short-term trade credit to countries buying

their exports. Many U.S. firms that normally export to the debtor countries, especially Mexico and Brazil, are currently unable to do so, as trade credit from private sources has disappeared. The U.S. Export-Import Bank, as currently constituted, has a mandate to raise its levels of credit in these circumstances, when reasonable assurance of repayment exists. Such credit simultaneously increases the ability of U.S. firms to export, and the ability of the debtor countries to import. Other wealthy countries' trade credit agencies are granting corresponding credits for their own firms' exports to the large debtor countries.

Third is the Paris Club, a forum where debtor countries can negotiate debt-relief terms on credits extended by, or guaranteed by, official government agencies. Paris Club rescheduling, along with the other forms of direct credit from national governments, is a significant element in the financing picture for many of the problem debtors.

Government financing for Argentina, Mexico, and Brazil, was about $3 billion in 1983. This amount, like the IMF lending, is much smaller than the shares of the burden borne by the banks and the debtors themselves, as Chart 2-6 shows.

In the longer run, more important than the role of the national governments in lending may be their role in trade. Currently, for the debtor countries to meet their debt obligations, they must necessarily run trade surpluses. Up until now they have mainly been cutting imports, but in the future they will have to boost exports. Even in the short run, the promise of future export growth is necessary to keep private capital flowing in.

In order for these countries to export, the industrialized countries must import from them. Real growth in the industrialized countries is the most important determinant of imports from the debtor countries. The 1983 U.S.-led worldwide recovery was the best possible development for the debt problem. While policies that bring down real interest rates and sustain the recovery are desirable in any case, their implications for the debt problem make them doubly desirable.

Trade policy in the industrialized countries is the second most important determinant of imports from the debtor countries. The industrialized countries have a variety of tariff and nontariff barriers against imports from these countries. It would be inconsistent for the industrialized countries to expect the debtors to meet their debt obligations, and at the same time expect their trade balance with the debtors not to turn negative. It is essential to the successful resolution of the current international debt problem that the industrialized countries not shut out the products that these countries wish to sell.

The soundness of the current four-way strategy, and its success to date, do not mean that future crises, even major ones, cannot occur. It would take a major unforeseen event, such as a sudden end to the world recovery, to change the outcome of the debt/export calculations; but it might take somewhat less than that for the four-way cooperation to fall apart.

The breakdown of the strategy could hypothetically come from either of two directions: (1) declaration of default and withdrawal of lending, by nervous banks, or (2) suspension of payments or even repudiation of the debt, by suffering debtor countries. Both of these worst-case scenarios are unlikely. Nevertheless, there is an undesirable all-or-nothing element to the present system. From the viewpoint of the creditor nations, a default or repudiation means that the value of the loans drops essentially to zero. From the viewpoint of an individual debtor country it might mean ostracism from the world system of trade and finance. Not only would many years pass before the debtor could resume the long-term borrowing necessary for economic development, but it would be subject to legal entanglements and probably cut off even from the short-term banking services necessary to carry on trade. Ways might be found to reinforce the current strategy that, although not necessarily altering the distribution of gains and losses in an average sense, would take some of the instability out of the system.

Credit Terms Versus the Level of Financing

One way to ease the burden on the debtor countries would be to increase the level of financing, and thus allow them to import more. The obvious drawback to allowing too high a level of financing is that it leaves the accumulated debt that much higher at the end of the year and reduces the pressure on the country to adjust.

There is a more promising alternative to ease the burden of adjustment that is being implemented for the case of Mexico in 1984. The banks, rather than increasing new lending to Mexico in 1984, are reducing it below 1983 levels, but are agreeing to lower the interest rate and loan fees charged. This tradeoff reduces the banks' total exposure relative to what it would otherwise be, and at the same time increases the probability that they will eventually be repaid in full. Mexico's financial position is improved because, for a given trade surplus, lower interest payments mean a lower current account deficit and thus a lower level of indebtedness at the end of the year.

Any easing of terms on bank lending must be tied to good performance on the part of the debtor. If the criterion for granting reduced interest rates were the seriousness of the country's difficulties,

as measured for example by debt-service figures, then the incentives facing the debtor governments would be perverse. Reducing the costs of economic mismanagement can make it more likely to occur. One possibility is to use as the criterion an improvement in the trade balance to the point of a substantial surplus in the balance on goods and (non-interest) services. This would ensure that the benefit is limited to those countries that have serious debt problems *and* have taken the necessary steps to adjust.

Expenditure-Reducing Policies Versus Relative Price Policies

The level of financing and the level of interest payments together determine the trade surplus that a debtor is obliged to run to generate the foreign exchange needed to make interest payments. These levels still leave open the question of whether to attain that trade surplus through high levels of exports and imports, or low levels of exports and imports. The course up until now has been closer to the latter: expenditure on imports has been cut, largely through cuts in government expenditure and in national expenditure generally. Both Mexico and Brazil appear to have cut imports in 1983 below the levels that had been agreed upon with the IMF. The price has been low levels of output, income, employment, consumption, and investment. Particularly in the cases of the larger countries, where imports are a small share of expenditure, cutting expenditure is an inefficient way of cutting net imports.

The alternative strategy is to slow the rate at which budget-cutting and other expenditure-reducing policies are implemented, and to substitute policies that raise the prices of traded goods relative to the prices of nontraded goods. Such "supply-side" policies would provide the incentives for labor and capital to shift into the production of the now more profitable traded goods. (In the case of Brazil, for example, a shift of resources into export production equal to 4 percent of gross domestic product would itself be enough to pay all the interest on the debt.) At the same time, such policies would provide the incentives for consumers to switch expenditure away from traded goods. The trade balance, which is the difference between the production and consumption of traded goods, would increase without a drastic decline in the level of output.

The obvious way to raise the prices of traded goods relative to nontraded goods is to devalue the currency. Devaluations cause immediate corresponding increases in the prices of traded goods, at least in the case of agricultural and mineral products. But there is no reason why devaluations need to be reflected as fully or as quickly in wages and the prices of nontraded goods. It is always easier to provide firms the incentive to export by reducing wages relative to the

prices of traded goods, rather than by reducing wages relative to the general price level.

Three arguments are heard against an approach of substituting some increases in the relative prices of traded goods for some decrease in the level of expenditure. The first is that devaluation is contractionary because of its negative effects on real wages, the real money supply, and the balance sheet of firms with dollar-denominated liabilities. But this argument applies more strongly to the approach of attaining a given trade surplus through expenditure reduction than to the relative-price approach.

The second argument is that devaluation is a "beggar-thy-neighbor" policy that is unlikely to be effective when other countries are trying to do the same thing. This argument, however, applies equally to the alternative expenditure-reduction approach. In other words both the "contractionary" and "beggar-thy-neighbor" arguments are really arguments for allowing smaller trade surpluses through increased financing; they are not arguments about the best way to attain a given trade surplus.

The third argument is that devaluation would result in a higher inflation rate than would expenditure reduction. Inflation is undesirable, and overexpansionary policies in the past were to some extent responsible for both the inflation and the debt problem. But it does not necessarily follow that there is an ironclad connection between continuous progress on the inflation problem and progress on the debt problem. The need to generate foreign exchange to meet interest obligations and the need to put a limit on the rate of decline of production, consumption, and investment, would seem to be absolute constraints. This calls for a judicious mix of policies that reduce expenditure *and* policies that change relative prices.

CONCLUSION

The strong U.S. recovery is creating jobs both at home and abroad. It is helping to pull the other industrialized countries out of recession, and is providing markets for the exports of the debtor countries as well. For the first time since the 1973 oil shock, Canada, Japan, and the European Community are all running current account surpluses. Many of the debtors are showing sharply improved international payments positions; a few such as Mexico have even attained current account surpluses. The United States is acting as an engine of growth in the world economy.

The composition of the recovery remains lopsided as a result of high real interest rates. If real interest rates can be brought down in the United States, it will alleviate the pressure for capital inflow and

for current account deficits vis-a-vis Japan, Europe, and other trading partners. At the same time, lower real interest rates would alleviate the debt-service burden on the debtor countries, thus reducing the trade surpluses that they must run and making things easier for all concerned.

In the meantime, the greatest danger, in the United States as elsewhere, is that the desire to boost exports and reduce imports will be reflected in protectionist measures. The only sound way to improve the U.S. trade balance is to adopt macroeconomic policies consistent with a recovery in which all sectors of the U.S. economy share. The only sound way to promote world trade is to adopt policies consistent with a recovery in which all members of the world economy share. In particular, it is essential to the favorable outcome of the debt problem that the debtor countries be allowed to increase exports to the industrialized countries. The liberal world trading system can only lose if its members resort to heightened barriers to the international flow of goods, services, capital, and labor. All parties can only gain if the debtor countries are restored to health.

CHAPTER 3

Industrial Policy

SHOULD THE UNITED STATES adopt an industrial policy? Proponents argue that such a strategy is necessary to revitalize our manufacturing sector. They claim that U.S. manufacturing has done poorly compared with the manufacturing sectors of other countries, and that we are losing our international competitiveness. These claims have led to the perception that manufacturing's share of our economy is eroding and that we are "deindustrializing."

To reverse this alleged decline, some industrial policy advocates propose that the government encourage new high-technology industries and help older industries regain their former strength. They also recommend that the government assist declining industries to adjust more smoothly to lower levels of output and employment. Others propose government aid to prevent a decline in selected basic industries.

Industrial policy solutions seem attractive to observers who think that such policies have contributed to Japan's emergence as a major economic power. Since World War II Japan has had rapid growth in manufacturing output, productivity, and exports. The main sources of this growth have been high rates of saving and investment, the migration of workers from farms to factories, and the adoption of modern technology. In addition, the Japanese government has used an array of tools to encourage certain industries to develop and others to adjust to decline. Some observers argue that unless the United States adopts an industrial policy of its own, Japanese growth will contribute to U.S. decline.

In this country, industrial policy advocates have advanced several proposals that would increase the government's role in directing resources into or out of specific industries. First, there would be a central agency to shape the Federal Government's industrial policy. Second, councils including representatives of business, labor, and government would gather information on specific industries and forge a consensus strategy. Third, a Federal development bank would invest money in industries deemed to receive inadequate capital from private financial markets. Fourth, declining industries would receive

government aid and import protection to adjust to new economic conditions.

Some industrial policy advocates claim that the United States already has an industrial policy. They argue that such policies as trade protection and subsidies for exports and research and development are components of an industrial policy simply because they affect the composition of industrial output. The difference between our present policies and what they advocate, they say, is that the former is ad hoc industrial policy while the latter is coherent.

It is true that many Federal policies affect industrial output. But the argument about whether they constitute industrial policy, like all arguments about definitions, is pointless. What is relevant is whether the proposals of industrial policy advocates are a good idea. Should the U.S. Government have a larger role than it now has in deciding the composition of U.S. industry?

The answer is "no." An industrial policy would not solve the problems faced by U.S. industry and would instead create new problems. Industrial policy has a mixed record in Japan and has been unsuccessful in Europe. Most of the problems of U.S. industries can be solved with prudent monetary and fiscal policies. The best way to deal with the many changes in demand that occur in a dynamic economy is to allow investors and workers to respond to such changes. Because they reap the rewards of their successes and bear the costs of their failures, investors will seek out industries that pay the highest rates of return. Similarly, workers have incentives to work where they can earn the highest wages. The free movement of capital and labor in response to new profit opportunities and wage differentials increases growth. Government allocation of investment that ignores market signals usually stunts growth by diverting labor and capital from more productive uses.

IS THE UNITED STATES DEINDUSTRIALIZING?

Although selected manufacturing industries face serious problems, the United States is definitely not "deindustrializing." Table 3–1 shows that the output, employment, and capital stock of U.S. manufacturing grew from 1950 through 1980. Moreover, manufacturing's share of total output and capital stock was roughly constant between 1960 and 1980. The manufacturing share of total employment progressively declined, but the decline is a sign of relative productivity growth, not a sign of industrial demise. There is no evidence of either an absolute or relative long-run decline of U.S. manufacturing output.

TABLE 3-1.—*Size and share of the manufacturing sector, selected years 1950–80*

Year	Manufacturing			Share of total		
	Output (billions of 1972 dollars)	Employment (millions)	Capital stock (billions of 1972 dollars)	Output	Employment	Capital stock
				Percent		
1950	131.1	15.2	106.4	24.5	33.7	28.4
1960	171.8	16.8	140.4	23.3	31.0	25.8
1970	261.2	19.4	202.2	24.1	27.3	23.5
1980	351.0	20.3	287.0	23.8	22.4	23.4

Sources: Department of Commerce (Bureau of Economic Analysis) and Department of Labor (Bureau of Labor Statistics).

It is true that the composition of U.S. manufacturing has changed substantially over the past two decades. As Table 3–2 shows, between 1960 and 1980 U.S. manufacturing shifted away from capital-intensive, labor-intensive, and resource-intensive industries toward high-technology-intensive industries. High-technology industries are defined as those with a high ratio of research and development spending to value added. (Value added equals industry revenue minus the cost of inputs purchased from other industries.) In high-technology industries, value added increased by more than 40 percent, and employment increased by more than 20 percent.

This shift in the composition of manufacturing output and the movement of capital and workers toward other sectors is not a threat to our economy or to our international competitiveness. Although we commonly call some industries "basic," the products of these industries are no more important than the products of the agricultural or service sectors. Nor is our position in world markets endangered if our exports shift from steel and machinery to engineering services. Using industrial policy to halt the decline of our basic industries would not increase growth. It would merely shift investment and employment from one sector to another. Increasing the total level of saving and investment is the best way to increase economic growth.

TABLE 3-2.—*Shares of value added and employment by industry group, 1960, 1970, and 1980*

[Percent of manufacturing total]

Group	Value added			Employment		
	1960	1970	1980	1960	1970	1980
High-technology	27	31	38	27	30	33
Capital-intensive	32	30	27	29	30	28
Labor-intensive	13	13	12	21	20	19
Resource-intensive	28	25	23	23	21	20

Source: Robert Z. Lawrence, *Brookings Papers on Economic Activity, 1:1983.*

U.S. manufacturing output and employment have generally performed well compared with other major industrial nations. Table 3–3 presents manufacturing data for France, West Germany, Japan, the United Kingdom, and the United States from 1960 to the first oil shock in 1973, and from 1973 to 1980. The data show that the slowdown in the growth of output and employment in manufacturing since 1973 was not limited to the United States, but also occurred in Europe and Japan. Whatever the causes of this slowdown, it is shared by our international trading partners, many of whom have industrial policies.

TABLE 3–3.—*Changes in manufacturing output and employment in selected industrial countries, 1960–80*

[Average annual percent change]

Country	Output		Employment	
	1960–1973	1973–1980	1960–1973	1973–1980
France	5.0	1.3	0.5	−1.3
Germany	5.2	1.0	.9	−1.7
Japan	12.5	2.4	3.4	−1.5
United Kingdom	3.0	−1.8	−.6	−1.9
United States	5.4	1.8	1.4	.1

Source: Organization for Economic Cooperation and Development.

The U.S. manufacturing sector grew more rapidly than most European manufacturing sectors between 1960 and 1980. Japanese manufacturing output increased most rapidly during this period, but the difference between the Japanese and the U.S. growth rates declined substantially after 1973. Between 1973 and 1980, U.S. manufacturing employment grew slightly, while manufacturing employment fell in France, West Germany, Japan, and the United Kingdom.

Some industrial policy advocates also claim that the United States is losing its competitive edge in high-technology. Since World War II, other countries have followed the United States in developing this sector. As the number of producers has increased, the U.S. share of this rapidly expanding market has gradually declined. Between 1962 and 1980 the U.S. share of industrial countries' high-technology exports fell from 30.3 percent to 23.9 percent. During the same period, the Japanese share rose from 4.1 percent to 12.3 percent and the German share stayed constant at about 18 percent.

However, the United States is still the leading exporter of high-technology products. In 1980 the United States exported $7.6 billion of high-technology goods, compared to $7.5 billion for West Germany, $4.8 billion for Japan, $3.7 billion for the United Kingdom

and $3.2 billion for France. In that year we were the leading exporters of office machines and automatic data processing equipment, and professional and scientific instruments. As Table 3–4 shows, from 1970 to 1980 the real value of net exports in many high-technology industries increased more in the United States than in Japan, West Germany, France, and the United Kingdom.

TABLE 3–4.—*Net exports in selected high-technology industries, 1970 and 1980*

[Millions of 1980 dollars]

Country	Medicinal and pharmaceutical products		Artificial resins and plastic materials		Electrical machinery		Professional, scientific, and controlling instruments	
	1970	1980	1970	1980	1970	1980	1970	1980
France	148.5	796.3	−62.2	33.2	272.5	664.0	−72.9	−56.0
Germany	546.1	981.4	1,573.5	2,590.0	2,914.2	4,480.1	1,094.9	1,573.0
Japan	−259.8	−779.5	1,092.0	1,315.1	3,638.1	7,230.1	907.6	562.5
United Kingdom	439.6	1,217.1	243.3	261.3	1,076.3	655.0	304.9	476.5
United States	575.0	1,216.9	1,635.5	3,171.1	1,378.8	169.8	966.0	3,712.7

Sources: Organization for Economic Cooperation and Development and Council of Economic Advisers.

PROBLEMS OF U.S. MANUFACTURING

Although U.S. manufacturing in general is not in a long-term decline, it has experienced serious short-term difficulties. In addition, certain industries have serious long-term problems.

Macroeconomic Problems

In the short run, U.S. manufacturing, like other cyclically sensitive industries such as housing, declined during the recent recession. Manufacturing employment fell from its peak of 20.4 million in July 1981 to 18.2 million in November 1982. Manufacturing output declined by 12.5 percent over the same period. However, employment has risen sharply since then, and stood at 19.3 million by the end of 1983, while output rose 17.8 percent between November 1982 and December 1983. As the recovery continues, manufacturing employment and output will also continue to grow. In any event, monetary and fiscal policies are the appropriate tools for avoiding cyclical problems. Industrial policy cannot hope to eliminate the effects of the business cycle on manufacturing.

A second short-run problem is the high value of the dollar relative to other currencies. The dollar appreciated 45 percent between 1980 and December 1983, after taking inflation into account. This increase in the dollar's exchange value has put U.S. producers at a serious competitive disadvantage in world markets. However, the problem is not limited to manufacturing, but extends to agriculture and such

services as construction, engineering, and tourism. As Chapter 2 explains, the solution once again lies with fiscal and monetary policies.

Problems of Basic Industries

Unfortunately, industries such as autos and steel, which have been hurt by the recession and the rise in the dollar, also face longer run problems. Foreign competition increased in both of these industries during the 1970s. The two oil shocks increased the U.S. demand for small cars, much of which was met by imports. Competition from imported steel increased as shipping costs fell and as foreign steel producers cut their prices in response to excess worldwide capacity.

During this period, management decisions may have worsened the competitive positions of these industries. U.S. auto firms let quality control slip, and they did not respond quickly to the shift in demand toward smaller cars. Some observers claim that steel firms were slow to adopt new technologies. In addition, labor costs increased more rapidly in autos and steel than in other manufacturing industries. In 1970 hourly compensation for auto and steel workers was about 30 percent higher than the average compensation in manufacturing. By 1981 the difference had grown to 70 percent for steel workers and 50 percent for auto workers. Since then, workers in both industries have made significant wage and benefit concessions, which may or may not be temporary.

These industries are now going through significant adjustments. If foreign firms continue to produce goods at lower costs than U.S. firms, then domestic output and employment in the affected industries will fall. The only ways to reduce the cost differentials are to increase productivity or to reduce or even reverse the growth in real wages. Otherwise, preserving output and employment would require a continuing subsidy from consumers or taxpayers to workers and stockholders in these industries.

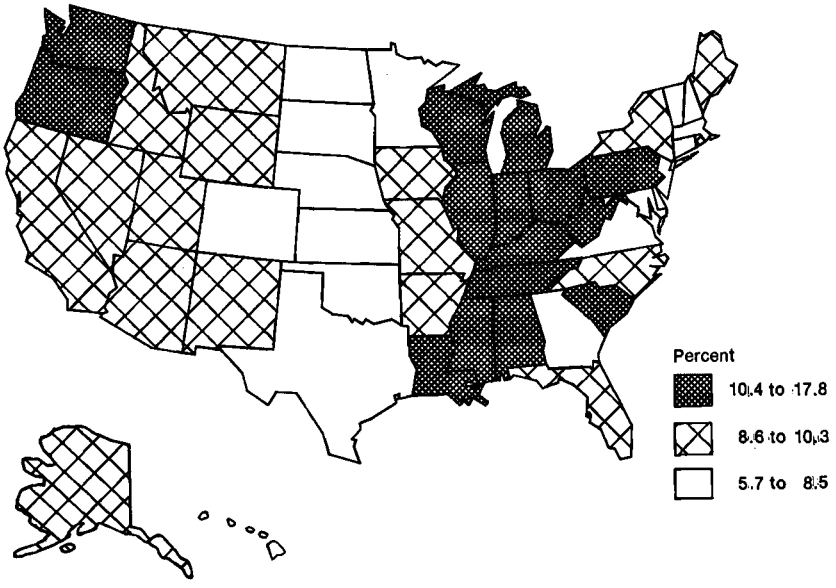
Regional Problems

Employment declines in manufacturing have created serious problems because of the regional concentration of job losses. In the late 1970s manufacturing employment grew by about 1 percent a year for the country as a whole but fell in the Middle Atlantic and Great Lakes States. The recent recession exacerbated these regional disparities. Chart 3–1 shows the uneven distribution of unemployment in fiscal 1983. Many of the States with high unemployment depend heavily on basic manufacturing industries for jobs.

These State unemployment rates hide a wide diversity of economic health within a State; real trouble spots are much smaller areas. In Ohio, for example, the unemployment rate in Columbus was half of Youngstown's in fiscal 1983. In Indiana, the unemployment rate in Lafayette was half the rate of Gary's.

Chart 3-1

Unemployment Rates by State in Fiscal Year 1983



Source: Department of Labor.

These small pockets of real distress persist in spite of job opportunities elsewhere because of the reluctance among some workers to move. Many unemployed workers do move, and broad regional population changes reflect these movements. One detailed study of two depressed areas found that among people who changed jobs, one-third found new jobs outside the region. However, many unemployed workers in depressed areas do not move. Some are tied to their communities by financial and family commitments—working spouses, homes that are hard to sell, and children in school. Unemployment benefits and the hope of returning to a high-wage job near home reduce the incentives for unemployed workers to move in order to find new jobs.

But unwillingness to move is not sufficient to cause lengthy unemployment—workers who are unwilling to move can still find work if their local economies are healthy. As one study shows, in regions with healthy local economies unemployed workers from declining industries are not out of work any longer than unemployed workers from other sectors. Geographic immobility together with depressed

local economies is the source of the special distress associated with the decline in specific manufacturing industries.

For people in these depressed local areas, the shift in manufacturing employment has been difficult. But the total amount of long-term unemployment caused by shifts in the manufacturing sector is relatively small. Workers from declining industries who suffer long-term unemployment are only about 2 percent of the unemployed. Other, larger groups appear to have bigger labor market problems.

Since hardships caused by economic adjustment are often regional problems, programs to ease adjustment should be targeted regionally. Otherwise, those in need do not get enough aid or budget costs of the program become too large. But the prospects for regionally specific programs are dim. Federal programs to extend unemployment benefits illustrate this problem. The original intent of the Federal program was to channel benefits to States with the highest unemployment rates. Under the current Federal Supplemental Compensation program, all States get benefits regardless of their unemployment rate. Complicated clauses in the law reduce the decline in benefits when State unemployment rates fall.

The general history of regionally targeted programs is a steady expansion of eligibility rules until all States get some portion of the program. The prospects for a good Federal adjustment program may be limited by the same problems that would plague industrial policy initiatives in general—possibly deserving groups would be crowded out by their less deserving but politically powerful competitors.

IMPLICATIONS FOR U.S. POLICY

There is no evidence of a general deindustrialization of the U.S. economy. Over the long term, U.S. manufacturing has accounted for approximately 24 percent of real output. Although manufacturing's share of total employment has declined, the number of workers employed in manufacturing rose by nearly 5 million between 1950 and 1980, and productivity growth was higher than in the rest of the economy. Nevertheless, the combination of a recession at home and a strong dollar abroad caused manufacturing output and employment to suffer. However, manufacturing output is currently rising almost three times as fast as the rest of the economy.

This suggests that the most important contribution of Federal policy to the strength of American manufacturing would be monetary and fiscal policies that are consistent with long-term economic growth and a sustainable trade balance. Such policies would not resolve all the problems of the few industries in long-term trouble. But

they would probably resolve most of the concerns that have led to the calls for industrial policy.

JAPANESE INDUSTRIAL POLICY

Proponents of an industrial policy often use Japan as a model for the United States. First, Japan has enjoyed rapid economic growth since World War II. Second, many Japanese products compete successfully in export markets. Although Japan has had great economic success, it is not clear that industrial policy contributed on net to this success. Other features of the Japanese economy, such as the high saving rate and the transfer of labor from agriculture to industry, were undoubtedly more important. Net saving in Japan over the past three decades has been over one-fifth of Japan's net domestic product. By contrast, net saving in the United States has averaged less than one-tenth of net domestic product.

THE INSTRUMENTS OF JAPANESE INDUSTRIAL POLICY

The first step in formulating an industrial policy for an emerging or declining sector of the Japanese economy is gathering information and creating a consensus. To gather the information about potential growth industries and the best way of developing them, the Japanese government meets with outside experts and convenes councils of informed individuals from banks, trading firms, producing and consuming firms, universities, and trade unions as well as relevant government agencies.

The final product of the council process is either a general "vision" urging private firms to develop a sector, or a specific plan to produce certain goods by some future date. The detailed plans, however, are simply targets that the government officials and private experts believe are both possible and desirable to meet. Japan's economy is not centrally planned, nor is there much government ownership of manufacturing firms. Although the government may provide incentives to encourage the development of certain industries, it does not force individual firms to comply with its targets.

The incentives provided by the Japanese government have included tariffs or import quotas, special tax treatment, research subsidies, subsidized loans, antitrust immunity, and administrative guidance. During the early postwar period of reconstruction Japan had steep barriers against all imports. Japan began to relax these barriers over 20 years ago. Since the mid-1970s, Japan's tariffs on manufactured goods have been similar to those of the other major industrial nations, and today they are among the lowest of all major industrial nations, including the United States. However, Japanese tariffs are

markedly higher than average on some manufactured goods in which Japanese producers are relatively uncompetitive.

Significant nontariff barriers continue to protect parts of Japan's manufacturing sector. Standards and certification requirements impede imports of automobiles and many other consumer durables. Government procurement restrictions protect Japanese electronics and computer industries. These restrictions have recently been relaxed somewhat but they remain significant obstacles to trade.

Special tax treatment, subsidized loans, and loan guarantees have been used to stimulate emerging industries, and to ease the adjustment of declining sectors. Until recently, firms purchasing numerically controlled machine tools were eligible for depreciation schedules more generous than those available for other equipment. Today, computer software producers and investments in robotics receive special tax benefits. Subsidized loans and loan guarantees also have helped to develop the steel, computer, shipbuilding, and semiconductor industries, and have assisted firms in the aluminum and petrochemical industries in reducing capacity and employment.

The Japanese government has also encouraged the development of certain industries by providing subsidies for applied research. The work subsidized with tax dollars is usually only part of larger joint research projects financed mainly by private firms. Japanese firms have used joint research successfully in developing several important products, including the 64K RAM chip.

Finally, firms in industries with temporary or permanent declines in demand are sometimes allowed to form cartels to restrict output in order to raise or maintain prices. Cartels have been formed during cyclical downturns in some segments of the aluminum, paper, and steel industries, and have also been used to maintain prices and reduce capacity in declining industries, including synthetic fiber, ammonia, and urea. In these cases, the government has allowed firms to cooperate in restricting output in exchange for promises by firms to scrap excess capacity. Higher prices have often meant lower domestic consumption, reduced exports, and either increases in imports or increased trade barriers.

This list of industrial policy tools may understate the role of the Japanese government in the development of specific industries. Various government agencies review conditions in industries within their jurisdiction in consultations with outside experts. If they see problems or opportunities, these agencies look for solutions and then try to persuade the private sector to follow their advice. The advice may be accompanied by promises of loans, research subsidies, or other government aid. The total effect of the advice and the aid on private

investment decisions may be greater than the actual amounts of aid would suggest.

PRIVATE INVESTMENT AND GOVERNMENT SUBSIDIES

These industrial policy tools—import barriers, special tax treatment, research subsidies, subsidized loans, and antitrust immunity—may have been important in stimulating the growth of Japanese industries such as steel, shipbuilding, machine tools, and computers. However, government financial aid to many of these industries—including steel and computers—is only a small fraction of the investments made by the private sector.

Subsidized lending by the Japan Development Bank, for instance, averaged only 1.4 percent of total bank lending to the steel industry between 1961 and 1970, and only 3.8 percent between 1971 and 1980. Japan Development Bank loans to the electrical machinery sector, which includes computers and semiconducters, were only 0.6 and 0.8 percent of total bank lending to those industries during the same periods. Although they may have been instrumental in encouraging private banks to invest in favored sectors, government loans were not a large factor in the growth of these industries.

Furthermore, Japanese subsidies to encourage the development of certain manufacturing industries have been only a small fraction of total government subsidies to specific sectors. As seems to be the case for all developed countries, by far the largest subsidies and the highest trade barriers go to agriculture. Energy projects designed to decrease Japanese reliance on imported oil, subsidies to small businesses, and Japan's government rail system also claim a large share of subsidies. Subsidies to emerging manufacturing industries are small by comparison with subsidies to these other sectors.

The sectoral distribution of the Japan Development Bank lending program reflects these priorities. In 1981 about 37 percent of the total loans of $4.9 billion was earmarked for energy projects. The next largest shares went to urban and regional development, ocean shipping, and "quality of life" projects such as pollution control. About 9 percent or $441 million was allocated to the development of technology, which encompasses the computer, electronics, and semiconductor industries. For comparison, plant and equipment investment in Japan in 1981 was about $180 billion, and electronic computer production was $6.7 billion.

Total spending for research and development in Japan as a percent of GNP exceeds that of France, but is less than that of Germany and the United States. Furthermore, in contrast to these countries, the Japanese government accounts for a small share of Japan's total research and development expenditures, and provides less than 2 per-

cent of the funding for all research and development undertaken by the business sector.

Government research and development funds in the late 1970s have been estimated to account for 6.7 percent of total research and development in the computer and semiconductor industries, versus 18 percent in agriculture and 28 percent of transportation research and development. The Ministry of International Trade and Industry (MITI), Japan's most important industrial policy agency, controlled about 12 percent of public research and development funds in 1983, or about $708 million, and allocated about one-half of these funds to energy-related research and development. About $350 million went to manufacturing industries.

Finally, Japanese government spending goes primarily to social welfare, aid for local governments, and public works rather than to develop emerging industries. In spite of its unique industrial policy process, Japan allocates government support to many of the same sectors that are favored in other advanced market economies, including the United States.

HAS JAPANESE INDUSTRIAL POLICY BEEN A SUCCESS?

Japanese industrial policy has had both successes and failures. Some targeted industries, including semiconductor and machine tools, are almost certainly stronger than they would have been without government support and can be claimed as successes for Japanese industrial policy. Other industries, such as shipbuilding and steel, probably grew more quickly because of government aid, but undoubtedly would have developed without any government intervention. However, the Japanese government has also picked losers. Aluminum smelting and petrochemicals were favored industries 15 years ago, but the public and private investments have paid off very poorly and now their capacity is being reduced. There are also several examples of successful industries that did not receive government assistance, including motorcycles and consumer electronics. Nevertheless, these industries have dominated world trade in the products they produce.

The Japanese automobile industry also received protection from imports. But the auto industry followed a course very different from that suggested by MITI. In 1961 MITI tried to force the industry's many firms to merge into a few. In 1965 MITI exhorted the industry to develop a prototype "people's" model of its product so MITI could designate the winning firm as the single producer. In both cases, the industry rebuffed MITI. Moreover, although import protection helped the Japanese auto industry develop, protection given to other industries hurt the auto industry by raising the price of

inputs such as steel. Furthermore, the auto industry has not received special tax treatment or subsidized loans for over 20 years. Therefore the success of Japan's auto industry cannot be attributed to industrial policy.

Furthermore, Japanese industrial policy did not create additional investment. It simply directed the existing pool of savings from one industry to another. It is possible that the industries that lost funds as a result of government industrial policy would have been at least as successful as the industries that received the government's blessing.

In conclusion, Japanese industrial policies have undoubtedly influenced Japan's industrial structure. However, the government and its councils of experts have a mixed record of success. They have indeed picked some industries that turned out to be winners in part because of their efforts, but they also picked industries that ended up losers. They failed to pick some big winners and they also picked industries that would have become winners without any help. The net effect of these policies on economic growth is not clear.

EUROPEAN INDUSTRIAL POLICIES

European economies have grown rapidly since World War II, primarily because of high rates of saving and investment, increases in education, and migration from agriculture to other sectors. However, many European policies that aid specific industries have been costly failures. Large scale efforts by European governments to promote high-technology industries have rarely produced commercially successful products. And attempts to ease the adjustment of declining industries have generally produced little reduction in excess capacity despite enormous government subsidies.

EUROPEAN INDUSTRIAL POLICY TOOLS

The tools used to implement industrial policies differ considerably among European countries. In France, the country with the most elaborate industrial policy, state efforts to develop the economy can be traced at least as far back as the time of Louis XIV. Since World War II, a series of 5-year "indicative" plans has set comprehensive targets for the French economy, often with specific sectors selected for special support. Although these targets have been voluntary, they have been designed as a framework for French economic growth.

The government owns a large portion of France's manufacturing and financial sectors, and thus is able to allocate resources directly into targeted industries, projects, or companies. Most of the capital for several emerging industries, including civil aircraft and comput-

ers, has come from the government. France has also used research and development subsidies and government procurement to encourage high-technology industries. In addition, the French government owns, subsidizes, and protects certain declining industries, including steel. Other declining industries, such as textiles and shipbuilding, receive subsidies and trade protection but are privately owned.

Britain does not have comprehensive economic plans or government ownership of banks and insurance companies, but government equity involvement in heavy and high-technology industries is common. Steel, autos, and semiconductors have received state equity support. In addition, many declining industries have received trade protection, manpower training grants, and financial subsidies.

As members of the European Community (EC), all the major industrial countries of Europe have common external trade barriers, most notably in steel and textiles. But West Germany, with its relatively efficient steel industry, has been less energetic than France or Britain in lobbying for barriers to protect declining industries. The West German government has provided substantial subsidies for research and development, but its subsidies for declining industries are low by European standards. There is little public ownership of manufacturing firms, but an important share of West Germany's banking system is state owned.

LESSONS FROM EUROPE

In spite of massive aid to favored European industries such as aircraft, computers, and semiconductors, most of the firms in these industries are not commercially successful. The explanation for this record may stem from the competing goals that governments generally pursue.

The Concorde is probably the most famous product of European industrial policy. Built by a British-French joint venture and flown only by their national airlines, the Concorde had cost French taxpayers $4.4 billion by 1979. At no time have revenues covered the costs of operating the Concorde, much less the capital costs of the firms that built it. Work on the Concorde helped develop France's aerospace industry and may have achieved certain political and social objectives. But, these benefits aside, the Concorde project is a clear reminder of the costs of government encouragement of emerging industries.

The Airbus is another large scale project that has so far been a commercial failure. Produced by a firm owned mostly by a consortium of European governments, the Airbus has been a profitable investment for the airlines that bought it, but a costly burden for the sponsoring governments. The Airbus still requires production subsi-

dies despite the sale of about 350 planes. Bolstered by government guarantees, Airbus did not follow the usual commercial practice of collecting purchase agreements before beginning production. As a result, early production levels were too low to benefit from scale economies.

The French government also decided to develop an internationally competitive computer industry in the mid-1960s. Today, neither of France's two recently nationalized computer companies is profitable, in spite of over $1 billion in direct subsidies, support through government procurement programs, and research and development subsidies. Many analysts conclude that the French government pursued an unrealistic goal of self sufficiency and ignored its competitors' comparative advantage and market share. Business decisions were made by the government and did not always reflect commercial realities.

Britain's computer and semiconductor industries seem similarly unable to overcome the competitive advantage of foreign producers in the British market, despite aid programs that include equity financing, loan guarantees, and government procurement policies. Neither the government-owned semiconductor firm nor the computer firm most heavily supported by the government is profitable. Once again, the appeal of technological independence outweighed economic considerations.

Aid to declining industries also reflects the sometimes competing goals of government intervention. Efforts to ease the adjustment of declining industries apparently slow that adjustment process, at enormous cost to European taxpayers. It appears to be difficult for governments to encourage an industry to decline sufficiently after giving it subsidies. Government assistance to the steel, shipbuilding, and textile industries has been designed to protect employment while encouraging restructuring. Despite massive infusions of aid and trade protection over a long period, there is still much excess capacity in the steel and shipbuilding industries.

Since the establishment of the European Coal and Steel Community in 1951, steel has been the most closely regulated and protected industrial sector in Europe. After years of import protection, subsidies, and output controls designed to raise prices, many European steel producers continue to sustain large losses. Although steel employment in the United Kingdom fell by almost 60 percent between 1974 and 1982, and has also declined in other EC countries, substantial restructuring remains to be done.

Restructuring of the European textile industry has also not been generally successful according to most analysts. Even when progress has been made in reducing excess capacity and modernizing equip-

ment, trade barriers have remained in place. Indeed, from bilateral quotas on cotton in the early 1960s to the current form of the Multifiber Arrangement, protection from imports has increased in scope and intensity.

European governments may be learning from their failures. The current French policy in electronics seems to be more competitively oriented than earlier policies, and since 1981 the British government has cut subsidies to declining industries. However, the French commitment to early development of a new commercial airplane suggests a continued belief that government can outguess the market.

SHOULD THE UNITED STATES HAVE AN INDUSTRIAL POLICY?

The perception that the United States is deindustrializing has spurred interest in industrial policy in this country. But we are not deindustrializing. Moreover, Japan's record with industrial policy is mixed, and industrial policy in Europe has generally failed. Industry-specific measures are not well suited to deal with the special problems of some U.S. industries and workers. Unemployment problems in declining industries are best solved with programs that focus aid on individuals rather than on entire industries. Allocating resources to different industries is best done by the market. Profit opportunities and wage differentials give investors and workers powerful incentives to seek out industries where their capital and labor are most valued and most productive.

Nevertheless, some people argue that industrial policy could promote growth and smooth adjustment. Many claim that government now fails to take account of the effects on industries of its various policies, and that better coordination within the government would improve the situation. Others claim that investors are reluctant to finance emerging industries because the time horizons of private investors are too short. These advocates therefore propose government aid to help emerging industries. Still others argue that government aid is needed for industries with learning curves, high value-added industries, linkage industries, and industries that compete with products subsidized by foreign governments. Finally, some industrial policy advocates argue that special aid should be given to declining industries to help them adjust.

COORDINATING AGENCIES AND TRIPARTITE COUNCILS

Industrial policy advocates argue that current Federal Government programs often conflict with each other. Creating a new agency and establishing tripartite councils of business, labor, and government,

they say, would bring these conflicts to the attention of government officials who would then make more judicious tradeoffs among competing goals.

Different government programs sometimes do have conflicting effects on an industry. Unintended consequences are inevitable in a complex economy where each policy affects a large number of sectors. More important, many policies have conflicting effects because governments have competing goals. Reducing air pollution, for example, raises the cost of producing steel and conflicts with the goal of a more competitive steel industry.

There is little reason to believe that introducing another agency would improve coordination. Government agencies and forums already exist to coordinate policies, and many government departments already have advisory committees to provide information on private sector views. Additional tripartite councils and a new agency would not necessarily be able to obtain better information than what is already available.

Tripartite councils are proposed to promote a consensus on policy decisions. This would strengthen the current tendency of government policy to take inadequate account of the interests of consumers and taxpayers, who have very weak incentives to organize on any particular issue. Business and labor groups are already heavily represented in Washington. An additional agency with stronger representation of business and labor interests would make the policy debate even more one-sided.

GOVERNMENT DEVELOPMENT BANK

Many industrial policy proponents propose a government development bank to augment private investment in certain industries. Some proposals include other types of aid, such as research and development subsidies to specific industries. These proponents claim that government support is necessary because the market does not invest enough in several types of industries—emerging industries, industries with learning curves, high value-added industries, basic or "linkage" industries, and industries that have been targeted by foreign governments. To supplement private capital, the proposed bank would lend additional money to industries in these categories.

Emerging Industries

Government investment in emerging industries is said to be desirable because private investors are too risk averse or have time horizons that are too short. Therefore they invest too little in risky ventures with long-delayed payoffs.

Investors may appear shortsighted or risk averse when they cannot capture all the returns from their investments. For example, patent

and copyright protection for computer software and integrated circuits is probably inadequate and may have deterred investors from taking risks and investing their time and money in these areas. More generally, research and development gains are often spread among many firms, not just the firm that incurs the costs.

The solution to these problems is not government investment in specific firms, but policy changes that improve incentives for all firms to invest in research and development. The Administration supports the provision of copyright-like protection for integrated circuit designs, and in 1981 supported enactment of a temporary tax credit for research and development expenditures.

The proposal to target emerging industries suggests that government can obtain better information than the private sector. It is difficult to understand how government officials, together with private business and labor leaders, will be able to gather more accurate information and use the information more wisely than the private sector. The United States has numerous investors willing to finance new ventures through equity or bank loans. Private investment analysts spend a great deal of time and effort evaluating new technologies and advising private investors on the most promising firms. Information on emerging industries is also exchanged by job shifting among scientists and engineers who are close to the development of new technologies. Ties between industry and the academic community also contribute to the spread of new ideas. In the United States the private sector already has information at least as good as the proposed government councils and banks could expect to gather.

In any event, a government agency is more likely to be shortsighted and risk averse than private investors. Since politicians face frequent elections, they often have very short time horizons. A government agency is also more likely to make decisions based on the shared expectations that are the conventional wisdom of the time; these processes tend to neglect or reject the idiosyncratic information that is the basis for decisions by the most successful private entrepreneurs.

Finally, government officials will often make investments based on politics rather than economics. One country tries to develop a computer industry before it has sufficient technical workers. Other countries invest in highly visible but wasteful energy projects that private firms think are likely to fail.

Learning Curves

In some high-technology industries, production costs drop significantly as firms gain experience. Some proponents of industrial policy say that the government should subsidize these industries or protect them from foreign competition to allow them to move down a

"learning curve." This would presumably speed up the drop in costs and increase their ability to compete in international markets.

Learning curves may exist for individual firms, for entire industries within a country, or for an industry in the world as a whole. If the learning curve is at the level of the firm, the U.S. market is likely to be far larger than the cumulative production required to advance an individual firm along its learning curve. Moreover, choosing a single firm to subsidize and protect in the beginning stages of a new technological development would be very risky. In every new industry there are false starts. Having government and private experts determine the best approach to a technical problem early in the process will generally produce a worse result than letting different firms compete to see whose idea is best.

If the learning curve is for the entire world, then the optimal strategy may be to let other countries go first and enter the industry only after initial research and development costs have been borne by foreigners. The Japanese have profited enormously by adopting U.S. technology.

While there may be special cases in which learning curves justify import protection, identifying them in practice would be very difficult. Because of this difficulty, many firms and industries would incorrectly claim that their learning curves justify import protection or subsidies. A similar problem arises in the Federal procurement process. Firms sometimes claim to have steep learning curves in order to justify becoming the only supplier to the government. Often, actual learning curves are flatter than predicted.

In short, knowing that a theoretical case exists may be of little practical importance. The end result of protecting or subsidizing a high-technology industry could be a domestic industry unable to compete in international markets. The trade protection granted to such industries could force U.S. buyers to pay higher prices and erode their competitive position in other markets.

Industries With High Value Added

Some proponents of industrial policy advocate redirecting investment to industries with high value added per worker. Value added is the revenue earned above that needed to purchase inputs from other industries. Value added is therefore the return to labor, capital, and know-how.

Total value added or, equivalently, real income in the economy is raised when a dollar of investment is moved from a use where its productivity is low to a use where productivity is higher. There is no reason, however, to believe that a dollar of investment in an industry with high value added per worker will be more productive than a dollar of investment in a low value added industry. What matters is

not the average productivity of labor or capital in that industry but the return on one more unit of capital. When markets work properly, investment is distributed among industries until the rate of return on additional investment is the same in all industries. In this situation, shifting investment from one industry to another will not raise total real income or value added.

The same is true of reallocating labor among industries. Although the average productivity and value added per worker differ among industries, a well-functioning labor market assures that employees will end up in industries where their contribution to output is highest. If this were not so, the employee would have an incentive to shift jobs in pursuit of a position with a higher wage.

The best way to promote high value-added industries is to expand the total capital stock of the economy. Investors will naturally seek to put that capital to its most productive use. If our tax laws distort the relative payoffs from investing in different uses, then it is the tax laws that need to be changed. Incentives to save and invest, such as Individual Retirement Accounts and accelerated cost recovery, are more likely to expand and modernize the Nation's capital stock, and thereby promote economic growth, than a government bank that merely reallocates a fixed amount of savings from one industry to another.

Linkage Industries

Some industrial policy proponents advocate government aid to "linkage" industries, that is, manufacturing industries whose output is a vital input into other industries' products. Steel and semiconductors are often cited as examples of "linkage" industries. However, if such an industry is vital, then the industries that rely on it will demand its output. The profit motive will ensure that this demand will be filled. If the demand can be met more cheaply by producers abroad, then it makes good economic sense for the firms that use the input to buy it abroad. The more uses the input has, the more important it is for the U.S. economy that the companies obtain this vital input at the lowest possible cost. Otherwise, the competitive position of the U.S. companies that use the input would be threatened.

Proponents of aid to linkage industries may have another idea in mind. They might be saying that producers of a particular good need to have producers of inputs nearby so that they can coordinate their plans. There do appear to be examples of industries that grew because they were near producers of vital inputs and therefore able to coordinate plans. Some observers have attributed part of the success of the U.S. personal computer industry to its location in the Silicon Valley, near the semiconductor industry. But if the advantages of locating nearby outweigh the disadvantages, companies will do so. Just as steel plants located close to coal mines earlier in this century, so

computer producers have located near semiconductor firms in the Silicon Valley. No government direction is needed.

Industries Targeted by Foreign Governments

Some industrial policy proponents also argue that the United States should subsidize industries targeted by foreign governments. If we do not, they claim, our industrial structure will be determined by other countries. A foreign subsidy that reduces the price of U.S. products clearly distorts the market, but a policy of countersubsidy by the United States would further depress prices and the return on capital. A general policy of countersubsidy would lead to increasing misallocation of capital and labor and lower economic growth.

Our present trade laws authorize countervailing duties on subsidized foreign products sold in the United States. In addition, selective subsidy of export financing may deter foreign export subsidies. The Export-Import Bank of the United States provides loans, loan guarantees, and export credit insurance for U.S. exports to counter foreign export subsidies. The Administration has been successful in the past 2 years in sharply reducing the export credit subsidies of other countries.

Some observers think that certain foreign industrial policies are responses to what they perceive as a U.S. industrial policy. They point to the stimulus provided by defense spending to our computer, aircraft, and nuclear reactor industries, and observe that our space program has made the United States the world leader in commercial telecommunications satellites. It is certainly true that the billions of dollars spent by the United States since World War II to develop new weapons and explore space have given a fortunate boost to some high-technology industries. However, the primary purpose of this spending has been to protect the United States and its allies and to pursue space science. If the main reason for this spending had been to develop commercial computer, civil aircraft, or satellite industries, our defense and space programs would certainly not have been the least expensive way of doing so.

AID FOR DECLINING INDUSTRIES

Most industrial policy proponents recommend government action to slow or reverse declines in "basic" industries. In addition to loans and special tax treatment, many proposals include government-sponsored restructuring plans that would spread adjustment burdens among labor, management, shareholders, suppliers, and creditors. In declining industries that face competition from imports, industry commitments to restructure would be extracted in exchange for trade protection, while expanded compensation and retraining programs would be used to help workers whose jobs are lost.

A basic problem with such proposals is that they would divert resources from emerging industries and from healthy established firms. Workers, stockholders, and suppliers in declining industries would exert political pressure to gain government aid. Experience here and abroad strongly suggests that resisting the pressure from declining industries would be difficult.

Aid to Firms

Proponents of aid to declining industries often cite Chrysler as an example of a company that has survived because of a government loan guarantee tied to a restructuring plan. But the Chrysler case should not be used as a model for several reasons. First, Chrysler might have survived even if it had gone bankrupt. The concessions extracted from workers, suppliers, and creditors in return for the loan guarantee might well have been made as part of an ordinary bankruptcy proceeding. Second, even if government aid were required to keep Chrysler in business, the auto industry and the economy as a whole may have derived little benefit from the guarantee. Many of the autos produced and jobs saved at Chrysler were at the expense of other U.S. automakers and their employees. Similarly, the loans that went to Chrysler would have gone to other sectors, possibly including emerging industries.

Third, loan guarantees to Chrysler may have been successful because such guarantees to failing companies are now the exception, not the rule. If loan guarantees became standard practice in such situations, workers, management, creditors, and suppliers might be less willing to make sacrifices. They might come to expect government aid whatever they did. Establishing a loan guarantee program would certainly encourage many other firms to apply for aid, and could lead to even more costly Federal commitments to firms that did not pull through after the first round of aid. This has been the common European experience, and it could well happen here.

Import Protection and Restructuring

Some observers suggest that trade protection be granted to industries hurt by imports in exchange for commitments to restructure and adjust. Without such commitments, trade protection reduces the pressure on firms and workers to make painful changes. Under existing trade law, import protection is granted with no guarantees that the workers and firms who benefit from the import protection will make the necessary investments or take other measures to become more competitive. The result is higher prices for consumers, often with little long-term improvement in the industry. The protected industry seldom becomes competitive and usually continues to pressure government for more protection.

Strictly enforced agreements, it is argued, could encourage workers and firms to use the financial benefits of temporary protection either to become more competitive or to scale down production. The current practice of granting import protection often has the opposite effect. It forces consumers to pay higher prices without requiring the industry to undergo difficult adjustments.

The main objection to this proposal is that once the presumption of aid is established, it is difficult to extract concessions from an industry. How often will government officials in this country be able to tell workers that they must accept lower pay, suppliers that they must cut their prices, and banks that they must write off loans in order to obtain import protection? Political pressure as well as economic considerations would undoubtedly influence the process.

In addition, an agreement to grant trade restraint in exchange for restructuring by an entire industry would be more difficult to enforce than a loan agreement with one firm. Should the government expect efficient firms as well as inefficient firms to make the same sacrifice? How would conflict between different segments of an industry be resolved? How would the agreement be enforced if some firms complied and others did not?

Aid to Workers

Industrial policy proponents who want to aid declining industries are motivated in part by concern for the workers in these industries. They often argue that manufacturing provides "good" jobs that cannot be replaced by jobs in other sectors of the economy. In fact, basic manufacturing jobs are no more important for the economy as a whole than jobs in, say, the service sector. The real difference between manufacturing jobs and service sector jobs is that the former often pay more than the latter because of differences in worker skills, or in some cases, because of the monopoly power of the manufacturing firm or of its union.

CONCLUSION

Many people advocate industrial policy as a way of stemming the alleged long-term decline in the U.S. manufacturing sector. But there has been no such long-term decline. Manufacturing's share of national output in 1980 was virtually the same as its share in 1950. Moreover, since 1973 the U.S. manufacturing sector has grown more rapidly than the manufacturing sectors of many of the major European industrial nations. And while our growth of manufacturing since 1973 has been less than Japan's, the difference in the U.S. and Japanese growth rates is less than half of what it was between 1960 and 1973.

While there was a short-run decline in U.S. manufacturing due to the recent recession, this was to be expected. Manufacturing is cyclically very sensitive, and our experience in the most recent recession was similar to our experience in earlier postwar recessions. Since the recovery began in the last quarter of 1982, manufacturing output has increased at almost three times the rate of total output. The answer to the short-run problems of most of our manufacturing industries is economic recovery.

A few industries, however, may be in long-term decline, in part because they face foreign competition. The problems of these industries stem partly from past mistakes by management, partly from wage increases that exceeded productivity gains, and partly from factors outside the industries' control. If these industries do not continue to make significant adjustments, either they will suffer additional declines in output and employment, or they will require permanent trade protection or subsidies at substantial cost to American consumers and taxpayers.

Using industrial policy to solve the problems of these few industries would be mistaken for two main reasons. First, industrial policy, in the form of either subsidies or trade protection in return for industry restructuring, would slow adjustment. Once the government helped these industries, it would find it very difficult to cut off or even phase out the aid, as various European governments' experiences with declining industries have shown.

Second, if the goal of industrial policy is to help the long-term unemployed, then helping declining industries is not an effective way of doing so. In healthy local economies, unemployed workers from declining industries find jobs as quickly as unemployed workers from other industries. Depressed local economies, not declining industries, are the real problem. The solution to the problem of the unemployed from declining industries is to enable them to find new jobs and to focus aid on those workers who are hurt by industrial change, as the Job Training and Partnership Act of 1982 is intended to do.

While some people advocate industrial policy to stem the alleged decline in U.S. manufacturing, others see it as a way of nurturing emerging industries, or industrial "winners." Some of these advocates argue that entrepreneurs in the United States have too much difficulty getting "patient" capital, that is, capital whose owners or lenders are willing to invest in a risky idea and to wait a few years for their returns. These advocates therefore want the government to give subsidies or subsidized loans to entrepreneurs with new ideas.

But to the extent the United States underinvests in new ideas, it is because the investors cannot capture the returns from such investments. The straightforward solution to this problem, if it is general,

is to increase tax incentives to research and development, as this Administration did with the 1981 Economic Recovery Tax Act. If the problem is specific to a few industries, the solution is to strengthen patent and copyright protection.

Moreover, even if there were too little "patient" capital, there is no reason to think that government finance would improve the allocation of capital. Government officials simply do not have the right incentives to make wise choices about which industries or companies to invest in. Governments often invest in projects with high political value but little economic value, or in safe projects favored by the conventional wisdom of the time. Neither way of choosing is likely to pick the potentially winning industries that lack capital and both kinds of investments siphon off capital that could have gone to the real winners.

To foster more rapid economic growth, the primary focus of government policy should be to strengthen the natural forces of the private economy by reducing the burdens and disincentives imposed by existing government laws. The most important goal of these changes should be to increase the rate of capital formation. A higher rate of capital formation fosters growth directly and permits a more rapid introduction of new technologies. The lower cost of capital and the faster technological advance also enhance the competitiveness of American industrial products in world markets.

To increase the rate of capital formation, the tax laws were reformed in 1981 in ways that reduced the burden of taxation on personal saving and on business investment in plant and equipment. The sharp decline in the rate of inflation since 1980 has also raised real after-tax rates of return and thereby increased the incentives to save and invest. As we look to the future, it is important to raise the Nation's rate of saving by reducing the government budget deficits. We must also seek new ways to revise the tax laws in order to reduce the disincentives that still restrict the rate of capital formation.

Our market economy and its system of rewards for superior performance have made the American economy the most productive and innovative in the world. An industrial policy that increases government planning, government subsidies and international protectionism would only be a burden on our economic life and a threat to our long-term economic prosperity.

CHAPTER 4

Food and Agriculture

AMERICAN AGRICULTURE is one of the most successful examples of agricultural development in the world. The industry is very productive: only 3.1 percent of the civilian labor force produces enough to feed the entire domestic population at low cost and still export enough to earn almost 20 percent of the total export revenue of the United States. Although farmers in most countries earn much lower incomes than nonfarm workers, the average disposable income of the U.S. farm population over the past decade has averaged close to that of workers in the rest of the economy. Average wealth per farmer is much higher than of people employed in the rest of the economy, and half of American farmers have no debt.

Despite these successes, all is not well with American agriculture. Farm export earnings and asset values have declined for the past 2 years. Recent entrants and farmers who have recently expanded their businesses have experienced cash flow difficulties. Although the farm bankruptcy rate is well below that for nonfarm businesses, the number of farm bankruptcies has substantially increased. The fraction of the farm population with incomes below the poverty level is still almost double that for the nonfarm population.

In fiscal 1983, Federal Government outlays for farm price and income support programs totaled $18.9 billion, an increase of $12.3 billion in 2 years. To this must be added another $9.4 billion worth of payment-in-kind (PIK) commodities committed in 1983 to compensate farmers for reducing their crop acreage in order to reduce inventories. These programs cost taxpayers almost $12,000 per farm. While Federal expenditures have been curtailed in many domestic program areas, the cost of farm programs has exploded.

Farm programs affect not only the taxpayer but also the consumer. Some farm policies clearly benefit the consumer. In particular, federally sponsored research has lowered food costs by generating a steady increase in agricultural productivity. Other policies artificially raise food prices through price supports and restrictive marketing and trade practices. This reduces consumers' purchasing power.

The present Federal farm programs were designed to address the problems of farming as it existed in the 1930s, but American agricul-

ture has changed dramatically since then. Farming has become a much more specialized, capital-intensive, and high-technology business. Many people justify farm income and price support programs on the basis of low farm incomes. But average farm family incomes of the commercial producers, to whom most benefits of the Federal programs go, are above income levels in the rest of the economy. Net farm incomes, however, vary substantially from year to year.

Exports now account for one-quarter of all farm sales. Yet present price support programs, along with the strong dollar, make U.S. agricultural products less competitive on world markets. If we value the foreign exchange earnings generated by farm exports and the market this provides for a quarter of the Nation's farm sales, our farm price and income support policies must become more market oriented than they are now.

THE FOOD AND AGRICULTURAL SECTOR

In 1982 the farm sector employed 3.1 percent of the U.S. civilian labor force and generated 2.4 percent of national income. In 1930, for comparison, 22 percent of the labor force was employed in farming and produced 9 percent of national income. With this shift have come increases in employment and income in industries producing goods and services purchased by farmers and processing farm products. Farmers now spend almost half of their gross income on inputs, such as seed, feed, pesticides, fuel, and fertilizers, 58 percent of which is produced in the nonfarm sector. After the products leave the farm, for every dollar's worth of sales destined for domestic consumption, processing, packaging, transportation, and other services add another $2 before it reaches the retail purchaser.

FARM INCOME

In 1983 farm cash receipts from product sales totaled about $144 billion (Table 4–1). This includes the net purchases by the government to support the prices farmers received for grains, cotton, tobacco, and milk. For example, to support the price of milk the government purchased $2.7 billion worth of dairy products. American farmers also received direct government payments in cash and in kind totaling about $9 billion. These total less than the fiscal 1983 budget authority for price and income support programs because part of those outlays occurred in the fourth quarter of 1982 and because farmers will take delivery of over half of their PIK commodities in 1984. The PIK program was designed to reduce the stocks that had accumulated following 2 years of bumper crops and weak demand,

particularly from exports. The acreage cutbacks, plus the severe drought of 1983, reduced grain and cotton inventories by $9 billion.

Gross income of the farm sector totaled $159 billion. Production expenses, which dropped substantially from 1982 because of reduced plantings, came to $136 billion. This left net farm income of $23 billion, up marginally from 1982. Net cash income, which excludes nonmoney income, the value of inventory change, depreciation, and perquisites to hired labor, reached a record high of $43 billion in 1983. In addition, farmers earned $41 billion of income from nonfarm sources.

TABLE 4-1.—*Farm income, 1980-83*

[Billions of dollars]

Item	1980	1981	1982	1983 [1]
Gross farm income	150.1	167.1	162.2	158.6
Cash receipts	140.0	140.3	135.5	144.4
Net CCC loans	0.5	2.0	9.1	−2.0
Direct Government payments [2]	1.3	1.9	3.5	9.1
Other cash income [3]	1.6	2.0	2.1	1.9
Nonmoney income [4]	12.1	13.3	13.9	14.0
Value of inventory changes	−5.3	7.6	−1.9	−8.8
Production expenses [5]	128.6	137.0	140.1	136.0
Net farm income	21.5	30.1	22.1	22.6
Addenda:				
Net cash income [6]	38.1	34.7	36.3	43.4
Off-farm income	37.7	39.9	39.4	40.8
Change in loans outstanding [7]	15.2	15.5	6.8	3.8
Capital expenditures	18.0	16.8	13.9	14.1

[1] Preliminary.
[2] Cash Government payments, except 1983, which includes $4.2 billion of payment-in-kind (PIK) commodities.
[3] Custom work, machine hire, and farm recreational activities.
[4] Value of home consumption of farm products and imputed value of dwelling.
[5] Cash expenses plus depreciation and perquisites to farm labor, but excluding expenses associated with farm dwellings.
[6] Excludes nonmoney income, value of inventory change, depreciation, and perquisites to hired labor. Includes net Commodity Credit Corporation (CCC) loans.
[7] Excludes CCC loans.

Source: Department of Agriculture.

As officially defined, a farm is a place that sells at least $1,000 worth of agricultural products per year. So defined, there are 2.4 million farms, which in 1982 had an average net income from farming of $9,188 and an average income from nonfarm sources of $16,430, for a total $25,618. The average family income for the whole population that year was $27,391.

More than one-third of the 2.4 million farms sell less than $5,000 worth of products per year, and 71 percent sell less than $40,000. These smaller farms are not generally full-time commercial operations, produce only a small share of national farm production, and, on average, have negative net income from farming.

The 29 percent of the farms with annual sales of more than $40,000 generate 87 percent of total farm receipts. In 1982 these 690,000 commercial farms had average annual gross receipts of about $190,000 and net farm income of about $36,000. Their net

farm income, however, varies substantially from year to year. These farms have average assets of about $1 million and average equity of about $800,000. This group received 78 percent of all direct government payments under farm programs in 1982. This accounted for 11 percent of their net farm income. These averages mask considerable diversity. For example, the largest 1 percent of all farms, which have annual sales of over $500,000, produce 30 percent of all farm sales.

SPECIAL CHARACTER OF FARMING

The commercial farm, like the small manufacturer, is a business that buys raw materials, transforms them through a capital-intensive process, and sells the finished products.

How then does a modern commercial farm differ from a small manufacturing company? Its most distinguishing characteristic is a biological production process that involves lags arising from growth cycles. This severely constrains the speed with which farmers can respond to changing market conditions. In addition, the volume of farm production is less predictable than in the nonfarm economy because of the random effects of weather, disease, insects, and genetics. These supply conditions contribute to substantial year-to-year variability in farm incomes. Since the annual output of major field crops is harvested within a few weeks in the autumn, this requires storage capacity for most of a year's output.

Agriculture and manufacturing also differ in the role played by land. Because crop production and livestock grazing are land based, they have to be dispersed over a wide geographic expanse from which the marketing system must assemble the production. The geographic differences in climate and soil limit what products can be produced in each location.

Land has characteristics that distinguish it from other inputs. As the demand for land increases, users must bid against a relatively fixed supply. They bid on the basis of expected future returns to the use of that land. The price of farm land increases in response to expectations of higher returns—whether from strong demand for what it can grow, from inflationary expectations, or from artificial price enhancement associated with government policy. Appreciation of land prices tends to increase the wealth of its owners, and often represents a significant fraction of an owner-operator's total returns. It also raises the entry cost for new farmers. Physical capital, being reproducible, tends not to appreciate over time in this manner, but rather to depreciate.

A third way in which farms differ from manufacturing plants is in the proportions in which they use labor and capital. Most farms are family owned and operated, with little hired labor. (Only 0.2 percent

are owned by nonfamily corporations.) In 1979 American agriculture used $43,000 of physical capital stock (machinery and buildings) per worker, compared with $21,500 for the economy as a whole. Farming used three times as much physical capital per unit of production (GNP basis) as the average for the total U.S. economy. In both agriculture and the rest of the economy, this capital stock tends to be quite specialized, although machinery used to produce field crops has multiple uses.

FIVE DECADES OF CHANGE

In the 20th century the structure of U.S. agriculture and the well-being of farmers have undergone profound change. Farm production has tripled, while employment in agriculture has fallen by 80 percent (Table 4–2). The increase in labor productivity and, in turn, farm family income was achieved by improving technology and by increasing the land and capital used per worker. As a result, employment in farming fell substantially.

In the 1930s disposable farm family income per capita was less than 40 percent of that in the rest of the economy. Over the past decade, however, farm family income has averaged 88 percent of that in the rest of the economy and exceeded that in the nonfarm sector in 1973. This income differential was the driving force behind the structural change in agriculture. As the proportion of the labor force employed in agriculture fell and the proportion employed in higher productivity nonfarm employment rose, migration contributed to national economic growth.

The rate of migration from farming to the rest of the economy was strongly motivated by the income differential. As the differential narrowed in the 1970s, the rate of migration slowed. The rate has also been sensitive to the nonfarm unemployment rate—slowing when the perceived chances of getting a nonfarm job were low and accelerating when the unemployment rate fell.

Rural industrialization has increased the number of off-farm jobs in rural America. Most farmers who did not acquire more land and capital have become part-time farmers; almost two-thirds of all farm family income now comes from nonfarm sources. This additional farm family income has reduced significantly the farm-nonfarm income differential.

The number of farms and the farm labor force peaked during the 1930s. Employment in farming went into a pronounced decline after World War II, when a major technological revolution occurred in agriculture. The replacement of draft animals by the tractor, which had begun in the 1930s, was virtually completed by 1960. This released

about one-fifth of our cropland, which had been used to grow feed for draft animals.

The increased mechanization of farming permitted the amount of land cultivated per farm worker to increase five-fold from 1930 to 1980. The amount of capital used per worker increased more than 15 times in this period. As Chart 4–1 shows, total farm production grew 140 percent, but total input use rose only 5 percent. Total productivity (production per unit of total inputs) more than doubled because of adoption of agricultural research results such as hybrid seeds and improved livestock feeding. Table 4–2 illustrates that use of both agricultural chemicals and feed grew very rapidly in the postwar period. Agricultural production now relies heavily on the nonfarm sector for machinery, fuel, fertilizer, and other chemicals. These, not more land or labor, produced the growth in farm production. These changes have also greatly increased the capital investment necessary to enter farming; they have also generated new requirements for operating credit during the growing cycle.

Education has been an important stimulus to growth in the economy as a whole and agriculture in particular. Rural education facilitated the move from farm to off-farm jobs. As the rate of technological change accelerated, rural education also helped farmers to adopt new technology and adjust to technological change.

The farm sector has undergone a major shift in what it produces. Total farm production is now split about equally between crops and livestock, as it was early in the century. The composition of each, however, has changed in response to changes in demand and in technology. In value terms, the largest increases have been in beef cattle and oilseeds production and to a lesser extent in feed grains and poultry. The proportions of cotton, hogs, eggs, sheep, lambs, and wool in farm output have fallen.

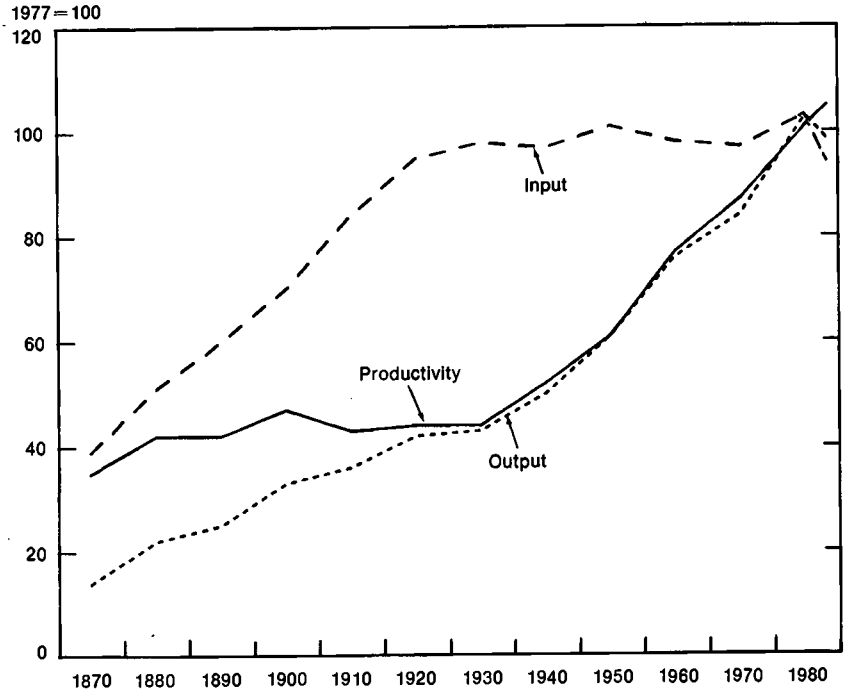
The two largest components of farm cash receipts today are beef cattle and dairy products, making up 21 and 13 percent, respectively, of the total. These are followed by corn and soybeans with 9 percent each, and hogs and wheat with 7 percent each. Cotton, chickens, greenhouse products, eggs, and tobacco each contribute about 3 percent of the total.

DEMAND FOR FARM PRODUCTS

Changes in demand have been an important factor underlying the changes in the product mix of the farm sector. In 1982 the total value of farm marketings was $144.6 billion, with $70.2 billion from livestock production and $74.4 billion from crops. The largest market for crops is domestic human consumption, which absorbed 43 percent of the value of crop sales. The second largest component of

Chart 4-1

Farm Productivity, Output, and Input



Source: Department of Agriculture.

TABLE 4-2.—*Farm input use, 1910–80*

[Index, 1910=100]

Year	Labor	Real estate	Mechanical power and machinery	Agricultural chemicals	Feed and seed
1910	100	100	100	100	100
1920	106	105	159	167	135
1930	102	104	200	200	159
1940	91	106	212	300	229
1950	68	108	424	633	341
1960	45	102	488	1067	453
1970	28	104	506	2500	565
1980	20	101	618	4000	635

Source: Department of Agriculture.

demand is exports (31 percent) followed by livestock feeding (16 percent). The remaining 10 percent goes to industrial use and seed. Within the crop sector there is great variation among these proportions. For example, most fruit and vegetable output goes for human consumption, while virtually all of the tobacco and cotton is for domestic industrial use or exports. Most of the livestock production goes to feed the domestic population, while by-products such as hides and animal fats go to industry or exports.

Domestic Consumption

In 1982 Americans spent $350 billion for food (excluding alcoholic beverages), of which $255 billion was for consumption at home and $95 billion for eating away from home. On the average this represents 16 percent of their disposable personal income, although the poor spend a larger percentage of their income on food than do the more affluent. Of the total retail expenditures for domestically produced food, consumers spent 29 percent for meats, 21 percent for fruits and vegetables, 15 percent for dairy products, 10 percent for bakery products, 7 percent for poultry and eggs, and the remaining 18 percent for miscellaneous food items.

Eighty-five percent of retail food expenditure originates from domestic farm production, and 15 percent is from imported foods. About one-third of our agricultural imports are products that we cannot produce in a temperate climate, in particular, coffee, tea, cocoa, spices, and bananas. Other imported goods that are produced domestically, although perhaps less efficiently, include sugar, dairy products, grass-fed beef, and some fruits, vegetables, edible oils, and beverages. In 1982, agricultural imports totaled $16.9 billion, making the United States the world's third largest agricultural importer, after the European Community (EC) and the U.S.S.R.

Food consumption per capita appears to have reached saturation levels in the United States, with most growth in aggregate consumption now coming from population growth. Total consumption (by weight) per person of foods other than beverages (coffee, tea, and soft drinks) has changed little since 1910. However, there have been major changes in what products are consumed. In the 20th century, direct consumption of grain products has fallen by more than half, while use of fats and oils more than doubled. Consumption of meat, poultry, fish, and sweeteners has risen sharply; consumption of dairy products and eggs first rose and then fell. Nonalcoholic beverage consumption has almost doubled since 1910.

Aggregate food purchases tend to be less sensitive to changes in price and in family income than are purchases of manufactured goods. However, within their food budgets, consumers select from among many choices in food items. Purchases of meats and of miscellaneous foods are quite sensitive to changes in family income, while

consumption of fruits and vegetables and particularly of cereals and bakery products are quite insensitive. Consumption of the more income-sensitive products, such as meats, tends to be more cyclical.

As family income increases, people tend to purchase relatively more services in the food they buy, including eating out more often. The share of the retail food dollar received by the farmer, therefore, has declined to about 28 percent. Labor, packaging, and transport account for much of the additional cost after products leave the farm. As a result, retail prices, particularly of bakery and cereal products, tend to adjust much less than proportionately to changes in farm prices.

Livestock consume about 16 percent of U.S. crop sales. This includes corn and other grains, protein meal, by-products from milling grains, and forage. This understates the feed use of farm output, however. For example, 35–40 percent of corn production is fed to livestock on the same farm where it is produced. The demand for feed is derived from consumers' demand for livestock and poultry products. Forces that alter the demand for meat, in particular income, are reflected in the demand for livestock feeds. Therefore, feed demand tends to have a stronger cyclical response to the level of economic activity than does consumer demand for cereal products.

Livestock feed demand for crop output also tends to be more responsive to price changes than does consumer demand for the final products. An increase in feed prices that turns the profit margin on livestock feeding negative can trigger a substantial slaughter of livestock. In the short run, consumers benefit from cheaper meat at the supermarket. However, to rebuild their herds, farmers must later withhold animals from slaughter for breeding. This rebuilding takes time, during which meat supplies are reduced and retail prices tend to be higher than normal. The use of crops in livestock feeding, then, varies cyclically with herd size. In a sense, the livestock herd functions as a buffer stock of grains. In times of crop shortfall, high grain prices trigger a herd liquidation, thereby freeing up grain for more direct human consumption or exports.

The smallest component of domestic crop demand is industrial uses. Tobacco and fibers, such as cotton and wool, are industrial raw materials. There are also industrial uses of cereals, such as in alcohol and starch production. Many livestock by-products, such as hides and animal fats, are also industrial raw materials. Part of this industrial demand is satisfied by imports, including rubber, wool, and other fibers. Because there are many synthetic substitutes, industrial demand for farm products tends to be quite sensitive to price changes.

Farm Exports

The United States supplies almost 20 percent of world agricultural trade and is the world's largest agricultural exporter. In recent years we have supplied half of the world soybean and product shipments, 55 percent of the coarse grain, 40 to 45 percent of the wheat, 30 percent of the cotton, and 25 percent of the rice that move in world trade.

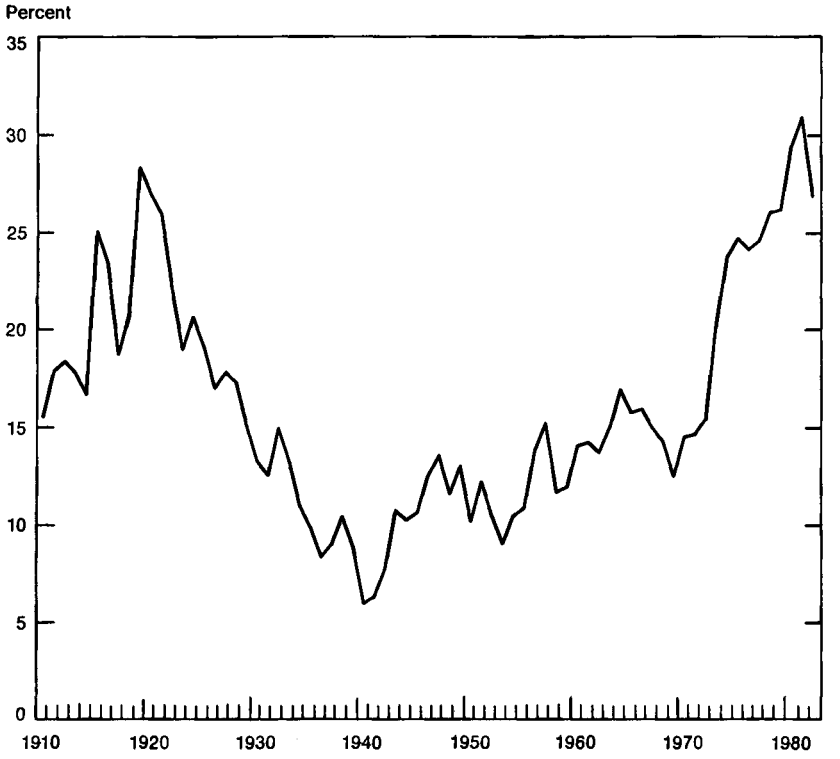
In fiscal 1983 agricultural exports of $34.8 billion represented about one-quarter of U.S. farm sales revenue and the output of about 35 percent of the harvested cropland. Half of U.S. farm exports are for direct food use—wheat, rice, fruits, vegetables, and meats—while more than a third go for feed and other farm uses; the remainder are raw materials used in industrial processes, such as textile, cigarette, and shoe production. In 1983 we exported three-fifths of our wheat, two-fifths of our rice, soybeans, and cotton, one-third of our tobacco, and one-fourth of our corn and sorghum. In contrast, only 2 percent of U.S. meat production and 5 percent of fruit and vegetable output are exported.

During the 1970s the value of U.S. farm exports increased more than five-fold, and the percentage of farm receipts coming from exports increased from less than 15 percent to almost 30 percent. This growth in farm exports represented a major internationalization of American agriculture. Chart 4–2 provides a historical perspective to illustrate that after several decades of reduced importance, U.S. farm exports recovered in 1980 the share they represented in farm marketings 60 years earlier. U.S. farm exports were relatively strong during World War I and its aftermath. As European agriculture recovered after the war, grain exports fell and U.S. agriculture went into depression in 1921. World trade in farm products shrank further as protectionism grew during the 1920s and the Great Depression. U.S. farm exports fell from 22 percent of farm sales revenue in 1922 to 6 percent in 1940. Because U.S. agriculture had a larger export exposure than the manufacturing sector, the collapse of world trade tended to have a relatively greater effect on farm than nonfarm incomes during the Depression.

In the 1920s and 1930s more than half of farm exports were industrial raw materials, mainly cotton, tobacco, hides, and tallow. Since World War II, food, rather than industrial raw materials, has dominated our farm exports. In the 1960s, as economic growth occurred, consumption of livestock products grew in the industrialized countries and in some developing countries. This was reinforced by a major technological change in livestock feeding practices, which dramatically increased demand for feed grains and high protein feeds. The widespread adoption of hybrid seed by U.S. corn growers after

Chart 4-2

Agricultural Exports as Percent of Farm Cash Receipts



Source: Department of Agriculture.

World War II, which substantially increased the profitability and use of fertilizer, greatly expanded corn output and depressed its price. Corn Belt and Mississippi Delta farmers discovered that the soybean, a novelty crop before World War II, did well in their regions. With the postwar productivity growth, production capacity grew faster than domestic consumption, expanding U.S. agriculture's export potential. Corn and soybean products, in particular, became high-growth exports.

During the 1970s the volume of world agricultural trade grew 45 percent, while global farm production grew only 24 percent. In the 1960s and 1970s, world trade in feed grains, soybeans, high protein feeds, and vegetable oils grew fastest. Sugar, food grains, tropical

beverages, and cotton experienced low rates of growth, and meat was intermediate. Trade in other fibers declined.

The pattern of world grain trade shifted dramatically in the past 50 years. The United States substantially increased its share of a rapidly growing market. As Table 4–3 illustrates, as recently as the 1930s Asia, the U.S.S.R., Eastern Europe, North Africa, and the Middle East were net exporters of grains. All have become significant net importers. From the mid-1950s to the late 1970s, world grain trade grew from about 30 million to 130 million tons per year. The largest increase in exports was from North America.

TABLE 4–3.—*World net imports and exports of grain, selected periods, 1934–83*

[Millions of metric tons: annual averages]

Country	Net imports (−) or net exports					
	1934–38	1948–52	1960–62 [1]	1969–71 [1]	1979–81 [1]	1982–83 [1]
Developed countries:						
United States	0.5	14.0	32.8	39.8	106.4	99.0
Canada	4.8	6.6	9.7	14.8	18.6	25.8
South Africa	.3	.0	2.1	2.5	6.2	.5
Oceania	2.8	3.7	6.6	10.6	14.2	12.0
Western Europe	−23.8	−22.6	−25.6	−21.4	−11.1	−4.5
Japan	−1.9	−2.3	−5.3	−14.4	−23.2	−23.7
Centrally planned countries:						
U.S.S.R. and Eastern Europe	4.7	2.7	.5	−3.6	−39.3	−44.6
China	−1.0	−.4	−3.6	−3.1	−11.4	−14.7
Developing countries:						
Latin America	9.0	2.1	1.5	5.3	−5.3	.2
North Africa and Middle East	1.0	−.1	−4.6	−9.2	−23.3	−27.8
Asia	2.4	−3.3	−5.6	−11.0	−13.4	−14.1

[1] Marketing years.

Note: Grain includes wheat, milled rice, corn, rye, barley, oats, sorghum, and millet.

Source: Department of Agriculture.

The growth in world cereals imports in the last decade has been fueled mainly by growth in per capita income, with growth in population being a significant but less important factor. The growth in imports occurred mainly in the centrally planned economies, the middle-income developing countries, Japan, and the oil-exporting countries. The U.S.S.R. and Eastern Europe alone accounted for 40 percent of the increase. These, like Japan and the middle-income developing countries, experienced rapid growth in incomes and in meat consumption but they lacked a comparative advantage to increase feed production. This effect is reinforced in the centrally planned economies by their policy of subsidizing food so that consumers pay less than the world price for meat and other livestock products. A small fraction of the growth in grain trade over the last decade has gone to meet food needs of low-income countries. These economies do not have the foreign exchange to pay for cereals imports, and their food aid imports have risen.

Since the global recession began in 1981, growth in world trade has slowed. This, together with record world production and third world debt problems, has reduced the volume of agricultural trade. The appreciation of the dollar has raised the cost of U.S. exports relative to other suppliers. Federal agricultural policies have also driven up the price of U.S. exports. This and the strength of the dollar contributed to a fall in the U.S. market share in world agricultural trade as well as the value of its exports.

The growth of exports in the last decade has radically changed the structure of demand for U.S. farm output. From World War II until about 1973, when exports were relatively unimportant, overall demand was quite insensitive to price. However, because there are other exporters and because most countries import farm products only after consuming their own domestic production, export demand tends to be more responsive to price and income changes. This means, for example, that when supply grows faster than demand, the market price may fall less than proportionately, and total farm revenue may increase.

Growth in exports has also introduced greater instability in the markets for American farm products. Exports are affected by weather, trade policy, exchange rates, population, and income in the rest of the world. All but population tend to be unpredictable and, therefore, generate shocks to the U.S. farm sector through the variability they cause in export demand.

In the 19th century, a country's competitive position in agriculture was strongly influenced by its endowment of fertile land and favorable climatic conditions. Today our fertile, abundantly rain-fed land base, while still important, accounts for only part of the competitiveness of U.S. agriculture. Other countries less well endowed with fertile land have followed the U.S. pattern of agricultural development by shifting to a more capital-intensive, science-based agriculture. A relative scarcity of land is no longer as severe a constraint on agricultural growth as formerly. If U.S. agriculture is going to maintain its competitive position, productivity growth must be sustained.

THE BROADER ECONOMIC ENVIRONMENT

American farmers responded strongly to the agricultural export boom of the mid-1970s. They substantially expanded their capacity by bringing previously retired land back into production and by buying more and larger machinery and equipment. The price of land was bid up to unprecedented levels. The boom attracted new entrants and encouraged many farmers to mortgage their present farms to buy more land. When the global recession hit in 1981 and the

dollar appreciated substantially in foreign exchange markets, U.S. farm exports and, in turn, prices and incomes, fell. This left U.S. agriculture with excess capacity relative to current demand. Many recent entrants and farmers who expanded in the 1970s suffered severe cash flow problems. These farmers have experienced capital losses as land prices have declined from their 1981 peak.

INTERNATIONAL TRADING ENVIRONMENT

The current world trading environment is characterized by weak demand and keen export competition. In the early 1980s the global recession, third world debt, and the strong U.S. dollar have reduced export demand.

Farm exports are not expected to grow as fast in the 1980s as they did in the 1970s. A decline in the value of the dollar would help all export sectors. However, in the past decade other major exporters have made large capital investments in agriculture and in marketing facilities to expand export capacity. They can be expected to compete aggressively for our share of the growth in world farm trade even when the dollar returns to a lower exchange rate.

Japan, Europe, and the U.S.S.R. are expected to continue to be large importers of U.S. agricultural products, although further growth is likely to be slow. The EC will probably continue to be a protectionist, slow-growth market even for those farm products that it imports. Eastern Europe, which was a rapid growth market in the 1970s, is experiencing such severe foreign debt problems that the outlook for rapid expansion in imports of farm products in the next few years is not bright.

The newly industrializing countries, particularly of East Asia, also expanded their imports rapidly in the 1970s. Resumption of this growth will depend upon their ability to generate foreign exchange earnings from exports. This will depend in part on the trade barriers erected against their exports by the developed countries. While the low-income countries are likely to need significant amounts of agricultural imports to feed their rapidly growing populations, their limited foreign exchange earnings will severely constrain their effective demand in the world market.

U.S. agriculture has a large interest in economic development of the low-income countries and in growth in world trade. Until the debt problems and foreign exchange earnings of Eastern Europe and the low- and middle-income developing countries improve significantly, the prospects for much growth in farm product imports by these countries are limited.

Competition is keen among exporters for the available markets in the current situation of depressed world farm trade. This has been

reinforced by the increases in agricultural protectionism and in predatory export practices. In particular, the U.S. Government has protested to the EC that its use of agricultural export subsidies to erode U.S. markets is a form of unfair competition. The internal price supports generally exceed world market prices by a substantial margin, yet the EC has chosen not to build up large stocks of grains. Instead the EC subsidizes farm exports in order to sell the surplus on the world market. Unlike the United States, the EC has not until recently required acreage or marketing reductions for farmers to qualify for price supports. The EC recognizes the problems with its agricultural policy, which now absorbs two-thirds of the total EC budget and imposes substantial additional costs on its consumers. The EC, like the United States, now has excess capacity induced in part by high price supports and is exploring means of reforming its farm policy to reduce the cost to taxpayers. It is unclear how the necessary adjustment will occur in the EC, but the United States has emphasized that other countries cannot be expected to bear the major burden of European adjustments.

MACROECONOMIC ENVIRONMENT

Modern American agriculture's relative capital intensity, reliance on purchased intermediate inputs, and export earnings integrate it tightly into the rest of the U.S. economy. Cyclical changes in the level of economic activity now have larger effects on agriculture than formerly. The agricultural sector, like other trading sectors of the U.S. economy, is strongly affected by interest rates and the value of the dollar. The agricultural sector therefore has a strong interest in reducing the Federal deficit to which recent farm programs have contributed significantly. Macroeconomic policy may have as great an absolute effect on agriculture today as do the direct effects of farm policy.

Prices of agricultural commodities tend to adjust to changes in the rate of money growth more quickly than do many other prices. This is true in part because contracts for raw materials tend to be written for shorter durations than for other goods and services. In addition, because of biological lags, agricultural supply tends to be very unresponsive to price changes in the short run. There are large differences among commodities in the degree to which demand responds to changes in consumer incomes. While demand for farm products tends to be less responsive than demand for many other goods, there nevertheless is a positive response to income changes. Therefore, agricultural prices tend to increase relative to other prices during the early phase of a monetary expansion and fall in relative terms at the start of periods of monetary stringency.

Because contemporary agricultural production requires a larger capital investment and uses more purchased inputs, a modern farmer's requirements for both mortgage credit and short-term operating credit are larger than in recent decades. Interest rates, therefore, have a greater effect on the cash operating costs of the modern farmer. Moreover, because one could earn interest on the capital invested in commodity inventories, the expected increase in agricultural commodity prices during the year must be at least as large as the forgone interest earnings if inventories are to be held.

Although the increasing overvaluation of the dollar impeded farm exports in the 1960s, depreciation of the dollar in the 1970s encouraged larger exports. The move from fixed to floating exchange rates, however, subjected all traded goods sectors to a new source of short-run instability. Because the present strong dollar has made imports cheaper to Americans and U.S. exports more expensive to foreigners, all traded goods sectors, including agriculture, have suffered reductions in demand and lower incomes. Agriculture, which earns around 25 percent of its gross revenue from exports, has a larger export exposure than most sectors of the American economy. Therefore it has been buffeted relatively more by the shifts in export demand that have accompanied the floating dollar over the last decade.

FEDERAL POLICIES AFFECTING AGRICULTURE

The development of U.S. agriculture and the well-being of American farmers have been strongly influenced by Federal policies since the Civil War, but particularly since 1933. During the Civil War a number of policy measures were taken to stimulate farm production. This helped satisfy the growing export market for grains. When the export market shrank in the 1920s and 1930s, farm prices and land values fell; bankruptcies became common. Several measures were taken in 1933 to support farm prices and incomes and save farmers from bankruptcy. When these, together with rapid technological change, caused production to grow faster than demand, another set of policies was implemented to expand demand. All three types of policies exist today in forms not greatly different from their original structure, despite the fact that conditions have changed markedly in the past 50 years.

POLICIES THAT REDUCE PRODUCTION COSTS

In the 19th century the construction of canals and later the transcontinental railroad opened up the fertile interior of the country to urban markets in the United States and Europe. Subsidized loans from the Rural Electrification Administration in the 20th century

helped extend electric and telephone service to remote rural areas at low cost. Because farm production is so geographically dispersed, these policies not only stimulated its expansion, but also lowered its cost. Federal regulation of transport and communication until recently kept rates to remote rural communities at or below cost. The implicit subsidies paid by high-density routes in other parts of the country, however, have been reduced recently by deregulation.

The Homestead Act, passed in 1862, provided a means of distributing public land in the unsettled regions of the Midwest and Great Plains free to settlers who would cultivate it for 5 years. The Morrill Act, also passed in 1862, established a land-grant college of agricultural and mechanic arts in every State. At first these were teaching institutions, but they later took on important agricultural research and extension roles as well. The Hatch Act of 1887 provided annual Federal support for agricultural research in each State, and the Smith-Lever Act of 1914 created the cooperative agricultural extension service. This land-grant system has developed and diffused higher productivity technologies adapted to the conditions of each State.

Research Policy

Since passage of the Hatch Act, a substantial portion of the cost of agricultural research in the United States has been directly borne by the Federal Government, especially in the biological area. The private sector has developed more of the mechanical and chemical technologies. Government support for agricultural research was appropriate because it was difficult to protect biological research results, such as wheat breeding. A private firm carrying on such research would not be able to control the dissemination of the results to capture enough of the payoff to recoup its investment costs. The research results have been an important source of growth in agricultural production and exports. The annual rate of return to taxpayers from investing in agricultural research has been about 50 percent.

Farm Credit and Crop Insurance

Historically, the rural banking system was weakly integrated into the national financial markets. Between 1916 and 1933, an independent, federally funded farm credit system was established. Although now autonomous from the Federal Government, the close association of the system to the Federal Government means that it can borrow from the national financial markets at close to the same rate as the Federal Government. Because the Federal rate is always less than the prime rate, this provides to farmers an interest rate advantage over what they could get at commercial banks. The system, which is cooperatively owned by its member borrowers, holds about one-third of

all credit outstanding to farmers. The Commodity Credit Corporation of the Department of Agriculture also provides shorter-term credit at favorable interest rates to farmers who participate in price support programs.

The lending activities of the Farmers Home Administration, another agency of the Department of Agriculture, tend to involve a greater subsidy element and to incur a larger Federal budget cost. The Farmers Home Administration makes real estate loans and other loans to farm borrowers who cannot obtain credit from commercial sources. The borrowers are mainly new entrants, small farmers, and farmers who have lost their creditworthiness. Loans to these borrowers often result in higher risks and therefore larger losses than would be acceptable to private lenders.

The Farmers Home Administration also has made emergency loans at well under market interest rates in areas hit by natural disasters. This program has been criticized for making subsidized credit available to farmers who already had access to credit from commercial sources. Despite very generous repayment terms, this program has not been noted for restoring financially troubled farms to profitability. During the 1970s the government also made direct payments to farmers who suffered financial losses due to natural disasters. By shifting part of the risk of failure to the Federal Government, these programs have encouraged larger crop production in areas of the country where the risk of crop failure is greatest.

The direct disaster payment program is being phased out as a result of the 1981 farm bill. It is being replaced by Farmers Home Administration lending and by a new and expanded Federal Crop Insurance program. Participation rates in the former crop insurance program were low, in part because the premiums did not adequately reflect individual differences in risk or in individual farmers' resources and management skills. The program was redesigned to encourage more commercial producers to participate than under the previous program, and the government now subsidizes up to 30 percent of the cost of crop insurance to farmers.

Together, emergency loans, disaster relief, and subsidized crop insurance tend to induce excessive crop production in areas of the country that are subject to a wide range of weather-related yield variation. The programs do this by raising farmers' expected returns from crop production in such areas by shifting part of the risk of failure to the Federal Government.

Income Tax Policy

Several features of the income tax law, some of them unique to farming, may encourage greater investment in productive capacity and expanded production. First, most farms use cash accounting

rather than accrual accounting. Farmers enjoy some flexibility in reducing taxable income by paying for purchased materials in high revenue years and by delaying sales into years of lower revenue. Second, under current tax laws, depreciation schedules for many capital assets are considerably shorter than the economic life of the assets. Reducing near-term taxable income in effect gives the farmer interest-free funds during part of the productive life of an asset. Third, use of the investment tax credit lowers the effective cost of capital items. Finally, sales of breeding animals and dairy cattle held longer than 1 year are treated as capital gains rather than ordinary income. This can substantially reduce the tax on such receipts for higher-income taxpayers, especially those with high off-farm income.

Tax policy does not affect the profitability of all types of farms equally. The tax laws encourage the substitution of capital for labor. Larger farms, which generate higher incomes, appear to gain proportionately greater benefits than smaller farms. People in higher marginal tax brackets can benefit more from the tax provisions. This creates an incentive for higher-income people to invest in farming. In practice, losses from farm operations reduce taxes on other income by more than the total Federal tax revenue from farm profits, implying that total farm income for tax purposes is negative.

Input Subsidies

Some Federal policies raise agricultural output by stimulating the uneconomic use of certain inputs. For example, the government often sets the price of water artificially low by granting public subsidies to construct and maintain irrigation projects. These low prices give farmers an incentive to use water in arid regions on crops that require a great deal of water. If the price of water were set higher, farmers would tend to grow less water-intensive products, leaving production of crops that use more water to humid regions. Without these public subsidies, some products now produced in arid regions could not compete with the same goods from more humid regions of the country.

There are other input subsidies for U.S. agriculture. For example, in the name of conservation, the government has shared the cost of terracing and contouring the land, applying lime, and otherwise improving the soil. The United States' relatively low energy prices have also encouraged mechanization and energy-intensive practices, such as irrigation and grain drying.

Farm Labor Policy

Farm labor policy mainly affects the labor-intensive agricultural activities, principally fruit, vegetable, and sugar production. The extension of minimum wage legislation to agricultural labor in 1966 pro-

vided an incentive for farmers to accelerate the pace of mechanization. Only about 1 percent of farm workers belong to labor unions, which formed in the farm sector in the 1960s, compared with 20 percent of all American workers.

The farm labor market has been greatly affected by the entrance of foreign workers into the United States. Until 1965, about 100,000 workers per year, mostly from Mexico, were authorized to enter temporarily under the Bracero program. Since the passage of the Immigrant Nationality Act in 1952, migrant workers have been given temporary immigrant status, under Section H2, if they do not compete with American workers. In recent years, Section H2 has covered only about 20,000 workers, mostly for sugar and apple harvesting.

PRICE AND INCOME SUPPORT POLICIES

The policies of the 19th century increased supply and helped the farm sector satisfy the growing domestic and export demand. The drop in export demand in the 1920s sent the farm sector into depression, and the effect was reinforced in the 1930s when protectionism increased and demand fell further. Farm prices and cash flow fell so low that many farmers could not make their loan payments; foreclosures became widespread. The Federal Government then turned to policies to support farm prices and to restrict the supply of agricultural products.

Origins of Price Supports

Although the depression in agriculture continued through the 1920s, it was viewed as a transitory problem resulting from excess capacity relative to demand. The Congress appropriated $500 million for the Federal Farm Board, created in 1929, to purchase cotton and wheat in order to bid up prices and thereby increase farm incomes. The Board was expected to resell these products when the market strengthened. The Board exhausted its capital stock in 3 years with no perceptible effect on prices.

After the Board's failure to support farm prices, the Agricultural Adjustment Act of 1933 created the Commodity Credit Corporation (CCC). The CCC was permitted to borrow funds directly from the U.S. Treasury to carry out its price support programs. These programs were viewed as a temporary expedient when they were initiated in 1933, but our present price support instruments are remarkably similar to those put in place 50 years ago.

The CCC employs two measures for supporting farm prices—direct commodity purchases and nonrecourse loans. Under the former, the CCC stands ready to acquire any quantity of a supported commodity offered in the market at a guaranteed minimum price, the support price. This technique is still used today to support the price

of milk. (Because of the perishability of fluid milk, the CCC supports its price by purchasing butter, cheese, and nonfat dry milk.) By authority of Section 32 of the Agricultural Adjustment Act of 1933, as amended in 1935, the Agricultural Marketing Service, an agency of the Department of Agriculture, purchases commodities whose prices are depressed. Chicken, pork, fruits, and vegetables are periodically purchased, although no formal support price is involved.

The CCC's other instrument is the nonrecourse loan. Under this program the CCC offers loans to farmers with their crops pledged as collateral. The size of the loan equals the support price (the "loan rate") times the quantity of the farmer's crop put under loan. Most loans are made for less than 1 year. If the market price rises sufficiently during the period of the loan, the farmer may pay off the loan plus interest and reacquire control of his crop. If the market price is not sufficiently above the loan rate when the loan comes due, the farmer can then freely default. The CCC accepts the commodity as payment in full and cancels the loan and interest. Loan rates were originally established to support the prices of wheat, corn and cotton. Rice, peanuts, and tobacco were soon added to the program.

In principle, both types of price support operations can be viewed as involving buffer stocks. A price support puts a floor under the market price in periods of slack demand, thereby protecting farmers' incomes. If the market price rises to a sufficiently high level, the CCC can sell the commodity back into the market at a profit, helping thereby to defray its cost of operation. It has to pay interest to the U.S. Treasury on its operating capital. A buffer stock is designed to protect farmers against abnormally low prices and consumers against unusually high prices. In practice, however, the support prices and loan rates have often been set above the long-run market-clearing level taking into account both domestic and international demand.

Although the loan rate has often been set above the market-clearing price for some commodities, farmers often argue that government stocks "hang over the market" and depress the price. They therefore lobby to ensure that government stocks are released in a manner that does not depress the price.

Rise of Restrictions on Input Use and Marketing

As government stocks of commodities accumulated under price support operations, it quickly became apparent that the programs were treating a symptom, not the root, of the problem—the excess capacity of the farm sector relative to market size at current prices. Three approaches have been used to address that—acreage allotments, marketing restrictions, and voluntary land retirement.

Acreage allotments are quantitative restrictions on the acreage a farmer may plant to a given crop. Although these have been used on

wheat, rice, cotton, tobacco, and peanuts, only the last two remain in effect. In practice, farmers tend to retire their least productive land first. They also raise crop yields on the acreage planted by using more fertilizer and other inputs per acre. Production, therefore, falls by proportionately much less than the reduction in land area. Marketing quotas have also been imposed, at times in conjunction with acreage allotments, such as with tobacco. Quotas based on historical sales freeze the structure of the industry. Later entrants are forced to buy or lease marketing rights from present quota holders.

While marketing restrictions were authorized in the Agricultural Adjustment Act of 1933, another variant was authorized when the act was amended in 1935. This 1935 act authorized the creation of marketing orders to regulate the sale of milk and various fruits, vegetables, and specialty crops. Once an order is approved by two-thirds of all producers, all regulated processors or handlers must comply with the regulations. While some marketing orders are only concerned with grading and packaging standards, or collective support for research or advertising, others regulate the flow of products to market and enforce price discrimination.

Allotments cause all producers to cut back jointly on marketing, just as if they had formed a cartel with the government agreeing to police the members. Examples include the marketing orders for brewers hops and spearmint oil. These are now being phased out.

Other marketing orders permit price discrimination among markets with different demand characteristics. A higher price is charged in markets for certain fresh fruits and fluid milk, where demand is less responsive to price, and a lower price is charged for identical fruit used in canning or for milk that goes into butter, cheese, or other manufactured dairy products. This raises producers' total revenue at the expense of consumers. There is nothing unique about the commodities regulated by such marketing orders that requires volume-control on sales of fresh produce. For example, sales of California and Arizona oranges and lemons, tart cherries and walnuts are controlled, while Florida citrus, sweet cherries and pecans are not.

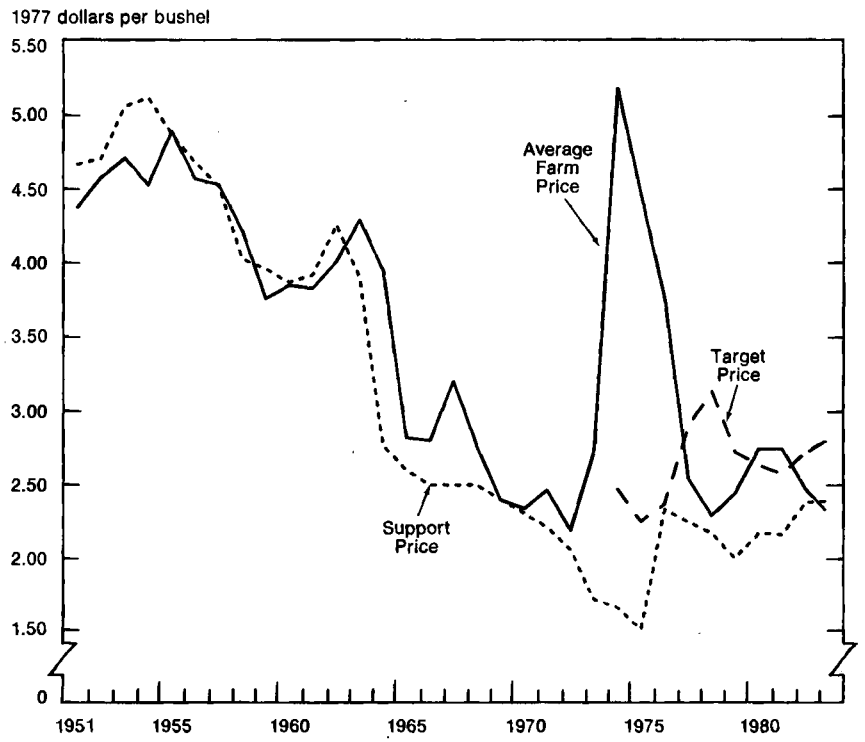
While World War II and the Korean war provided a period of high prices for U.S. agriculture, the lower farm prices and incomes which followed brought renewed attempts to restrict acreage or marketings. A voluntary land retirement program known as the Soil Bank was established in 1956, in which the government paid farmers to take land out of production. By the late 1960s, farmers had retired more than 60 million acres under this program.

Nevertheless, with rapid productivity increases, surpluses continued to mount despite the downward drift of real support prices through the 1960s. Chart 4-3 illustrates this trend for wheat. The in-

creasing overvaluation of the dollar in the late 1960s made this price reduction less pronounced when viewed from the perspective of importing countries. Despite their downward drift, the support prices appear to have exceeded market-clearing levels in most years through 1972, when the dollar was devalued and farm exports and prices increased dramatically. The effect of the dollar devaluation was reinforced by simultaneous crop failures in many parts of the world, the ready availability of credit, and a change in Soviet agricultural import policy that led to a large grain purchase from the United States.

Chart 4-3

Real Wheat Prices



Source: Department of Agriculture.

The Last Decade

As farm exports expanded, government programs were adjusted to allow farmers to bring most of the retired land back into production. In 1973 farm incomes exceeded those in the rest of the economy for

the only time in history. The excess capacity of the 1950s and 1960s disappeared, and farmers quickly expanded their production capacity to satisfy the export demand.

The moves toward an increasingly market-oriented farm policy, begun in the late 1960s, culminated in the Agriculture and Consumer Protection Act of 1973. Recognizing that loan rates, by interfering with market prices, may limit our ability to compete in world markets, the 1973 act attempted to divorce the policy objective of farm income support from price supports. The act retained loan rates as a form of minimum price insurance, but established a system of target prices and deficiency payments to provide farm income insurance. Participating farmers can make production decisions based on the target price, but unlike loan rates, the entire crop is sold on the market for whatever it will bring. The difference between the target price and the average market price (or the loan rate, whichever is higher) in the first 5 months of the marketing year is paid to the farmer in the form of a deficiency payment per unit of production. By this means, the government avoids accumulating stocks unless the market price falls to the loan rate.

One disadvantage of target prices and deficiency payments is their large potential cost to the government, particularly if there is a wide spread between the target price and loan rate. To overcome the cost disadvantage and the tendency for target prices to encourage larger production, the program often requires a farmer to reduce the acreage planted as a condition for participating in the benefits of the program. The forgone production on this acreage is, in effect, the premium paid for the price insurance provided by the loan rate and the income insurance provided by the target price.

Because market prices were high during the export boom of the mid-1970s, the then-existing farm policies had little effect. Concern arose, however, about the much larger price instability that had accompanied the export growth in the absence of government stocks. A 3-year CCC loan program, known as the Farmer Owned Reserve, was established by the Food and Agriculture Act of 1977. In exchange for a higher loan rate, a farmer who satisfies any acreage reduction requirements can place commodities in the Farmer Owned Reserve for a 3-year period. After the first year, the loan is interest free. The Department of Agriculture pays for the storage cost for all years of the loan. In exchange, the farmer agrees not to sell the grain until the market price rises to a specified release price.

Although the Farmer Owned Reserve was designed as a buffer stock scheme for stabilizing market prices, in practice the price bands have been altered frequently. In particular, since the 1980 embargo of grain sales to the U.S.S.R., the Farmer Owned Reserve loan rate

has at times been set high enough to provide incentives to produce for storage under the program. This is contrary to its objective of providing price insurance when the market price falls below its long-run equilibrium level.

With the onset of the global recession and the strengthening of the dollar 2 years ago, farm exports fell and farm prices dropped well below loan rates. There were bumper crops in 1981 and 1982, and stocks in the Farmer Owned Reserve and in CCC inventories burgeoned. With no imminent increase in exports foreseen, a Federal policy decision was made early in 1983 to offer farmers payment-in-kind if they would reduce their crop acreage in 1983. Farmers found this proposition so lucrative that they cut back their harvested acreage by 55 million acres from the previous year. In addition, a devastating drought struck, drastically reducing production of corn, soybean, and cotton in particular. The payment-in-kind program is not viewed as a permanent addition to the instruments of Federal farm policy.

POLICIES THAT AUGMENT DEMAND

Farm production has grown more rapidly than demand during most of the past 50 years, exerting downward pressure on farm prices. Several Federal policies have attempted to increase domestic and foreign demand in order to provide some price support to farmers.

Consumer Policies

A number of Federal programs directly related to food have sought to aid low-income consumers, who spend a larger fraction of their income on food. When the government began purchasing agricultural commodities to support farm prices and farm income in the 1930s, certain commodities were distributed free to the urban poor and unemployed. Direct distribution of surplus commodities acquired by the CCC continues to this day, for example, the recent distribution of surplus cheese and other CCC-owned products. In addition, the government subsidizes school lunches and donates commodities to schools. These include meats, fruits, vegetables, eggs, and poultry.

The largest program is the food stamp program, which had a budget cost in fiscal 1983 of $11.2 billion. This program distributes food stamps to low-income consumers to augment their purchasing power in a form that must be spent specifically on food. Nevertheless, because food stamps substitute for cash within a household budget, low-income consumers tend to spend only about 12 cents more on food for each dollar's worth of food stamps received. The food stamp program probably added less than 1 percent to aggregate consumer expenditures on food in 1983. This program is mainly a

welfare program for low-income consumers rather than a program to expand food demand.

Agricultural Trade Policy

A country's agricultural trade policy is generally a consequence of its domestic price support programs. Major changes in a country's trade policy, therefore, generally require changes in that country's domestic agricultural policy as well.

When price supports are set above the world market-clearing level, they have particularly adverse side effects for internationally traded commodities. Unless trade is constrained, a large trading country like the United States cannot support the domestic price of a commodity without also supporting its price for farmers in all other trading countries. When the support price exceeds the world market price on export products, the U.S. Government withdraws enough supplies from the market to raise the world price to the domestic support level. Exports fall, raising the world price for the commodity. This higher price encourages farmers in other countries to expand their production capacity. This has occurred for tobacco, cotton, and wheat—at various times among our most important export crops.

To support the domestic price of goods that we import, the government must buy up domestic production and even imported supplies until the world market price is bid up to the support level. This appears to be happening today under the price support program for honey, although this is not typical. Instead, by authority of Section 22 of the Agricultural Adjustment Act of 1933, as amended in 1935, quotas or fees can be imposed on imports of any product whose domestic program is threatened by imports because of price supports set above the market-clearing level. The United States currently has such import quotas on sugar, dairy products, cotton, and peanuts. The United States received a waiver for these quotas in the 1950s by the General Agreement on Tariffs and Trade.

Although there is no price support program for beef, the Meat Import Act of 1979 mandates annual quotas to limit imports when domestic supplies are large. Voluntary export restraints have been negotiated with the principal beef exporting countries to avoid triggering the beef import quota.

In 1954, Public Law 480 created the Food for Peace program as a means of reducing the large CCC stocks acquired through price support purchases. This act and subsequent amendments provided for donations of commodities to poor countries and sales for local currencies. These funds are used for development projects or local expenses of the U.S. Government, such as embassy operation. Almost 40 percent of all U.S. grain exports in the 1960s were under Public Law 480. While concessional sales have helped to reduce burden-

some government inventories and to develop new markets for U.S. farm products, the years when government stocks have been largest have often failed to coincide with years of crop shortfalls in developing countries.

Government stocks also have been reduced through export subsidies. Export subsidies on agricultural products are permitted under the General Agreement on Tariffs and Trade, subject to certain conditions. In particular, export subsidies must not be used to obtain more than an "equitable" share of world exports or to "materially undercut" other suppliers' prices. Export subsidies were used by the United States to avoid accumulating larger CCC stocks from the 1960s until 1972. In recent years, "blended credit" and special subsidized sales have been used to encourage other countries, particularly the EC, to reduce their farm export subsidies. "Blended credit" consists of a mixture of no-interest loans "blended" with guaranteed or nonguaranteed commercial credit.

Export subsidies set up a two-price system that permits producers collectively to charge a higher price in the domestic market, where demand is less price responsive, and a lower price in the export market, where demand is more sensitive to price changes. By this means, total revenue to producers is increased. Total revenue to producers is, of course, further enhanced by the fact that farmers receive the higher domestic price for all they sell, but taxpayers pay the entire cost of the export subsidy.

The target price system can also act as an export subsidy under certain circumstances. Unless sufficient acreage reduction is required, target prices tend to cause larger production and lower market prices than would otherwise occur. Such price reductions have the same effect, when viewed from other countries' perspective, as export subsidies, unless loan rates are set at or above the long-run world market-clearing prices. For example, it appears that the wheat loan rates were sufficiently low in 1977, 1978, and 1979, that the target prices did depress market prices. Since 1980, however, the wheat loan rates have been set at such high levels that exports have been reduced.

The United States generally endorses free trade. During the various rounds of multilateral trade negotiations, the United States has regularly urged that trade in agricultural commodities be treated simultaneously with other goods, only to see it split off for separate treatment. The various rounds of trade negotiations have significantly lowered tariffs but have been relatively unsuccessful at achieving similar reductions in nontariff barriers, the principal barriers to trade in agricultural commodities.

On several occasions in the 1970s, the U.S. Government embargoed exports of certain agricultural products—either globally or to selected destinations. Exports of soybeans, for example, were embargoed in 1973 to hold down domestic prices to livestock producers who use soybean meal as an input, and indirectly to protect domestic consumers from higher prices of livestock products. In 1980 a partial embargo was imposed on grain sales to the U.S.S.R. in response to the invasion of Afghanistan. As a result of these embargoes, questions have been raised about the reliability of the United States as a supplier and about the sanctity of U.S. export contracts. This Administration has publicly stated that farm exports will not be selectively embargoed in the future, and has entered into long-term sales agreements with China and the U.S.S.R.

Since 1981 the adverse trade effects of the strong dollar, third world debt problems, and high price supports have motivated legislative requests for special export assistance through price or credit subsidies and expanded export credit guarantees. Credit guarantees have become a major tool in the effort to maintain U.S. farm exports. In addition, public expenditures in support of U.S. agricultural export promotion and foreign market development activities have increased.

NET EFFECTS OF FARM PROGRAMS

Table 4–4 lists the major Federal farm programs for the most important American farm products. In fiscal 1983 the Federal price and income support programs cost the taxpayer more than $28 billion, but this number tells only part of the story. Price supports and restrictive marketing and import practices impose an additional cost on consumers by reducing their purchasing power.

Federal farm policies tend to have two opposing effects on consumer prices. Public support for agricultural research and development has produced a stream of productivity-increasing, cost-reducing technological improvements, which have lowered market prices. Food price reductions benefit the poor in particular, because they spend a larger fraction of their income on food than do middle- and upper-income groups.

Offsetting this positive effect on consumer prices are public policies that artificially raise farm product prices above the market-clearing level through price supports and restrictive marketing and trade practices. By raising food prices, these policies tend to reduce consumers' purchasing power. Because the policies alter relative prices, they also distort the mix of products consumed. They have stimulated the development of synthetic substitutes for natural products, for example, high-fructose corn sweeteners and low-calorie sweeteners

TABLE 4-4.—*Major Federal farm programs by commodity, 1982*

Sales rank	Commodity	Billions of dollars		Nature of program
		Farm sales value	Value of net exports	
1	Beef cattle and calves	29.9	−1.2	Import restrictions.
2	Dairy	18.4	−.3	Price supports. Import quotas. Classified pricing.
3	Feed grains	16.1	6.4	Price supports. Deficiency payments. Acreage restrictions. Storage incentives for participants.
4	Soybeans	12.4	6.2	No effective program (price supports).
5	Hogs	10.6	−.5	Section 32 purchases.
6	Wheat	9.8	6.9	Price supports. Deficiency payments. Acreage restrictions. Storage incentives for participants.
7	Poultry and eggs	9.5	.4	Section 32 purchases.
8	Vegetables	8.1	.0	Some products free market, but some import restrictions and marketing orders. Section 32 purchases.
9	Fruits and tree nuts	6.7	.1	Some products free market, but some import restrictions and many marketing orders. Section 32 purchases.
10	Cotton	4.9	2.0	Price supports. Deficiency payments. Acreage restrictions. Import quotas.
11	Tobacco	3.3	1.2	Price supports. Acreage and marketing controls.
12	Hay	2.1	.0	No program.
13	Rice	1.7	1.0	Price supports. Deficiency payments. Acreage restrictions.
14	Sugar beets and cane	1.7	−.8	Price supports. Import quotas, fees, and duties.
15	Peanuts	.8	.2	Price supports. Acreage restrictions. Import quotas. Domestic marketing quotas.

Sources: Department of Agriculture and Council of Economic Advisers.

for sugar, synthetic fibers for cotton and wool, margarine for butter, nondairy creamers for cream, and artificial cheese for natural cheese on frozen pizzas. Such substitutions have offset part of the adverse effects of price-enhancing policies on consumer welfare. Finally, low-income consumers have realized some benefits through income-augmenting programs such as food stamps and commodity distribution.

Public policies also affect the farm sector's export performance. Past public investments in agricultural research account for part of the increase in farm exports. At least in the long run, export demand is elastic, so this export growth has increased agricultural export revenue. On the other hand, policies that administratively set U.S. farm support prices above the world market-clearing level tend to reduce

export revenue in the long run. This occurred in the 1960s and again for some commodities in the early 1980s. Such policies prevent agriculture from realizing its full potential as a trading sector.

What matters to producers is how government policy affects the net returns to their land, labor, and capital. For a given technology, any public policy that raises the price of products or lowers the cost of purchased goods and services raises net returns. This has been the effect of price supports, import quotas, and export subsidies, as well as of cheap water and cheap energy policies. On the other hand, the price supports on grains have raised the price of feed to the livestock and poultry sectors. In this way, public policy raises the net returns to one set of farmers, while lowering those to another.

Different rates of protection to different sectors tend to cause inefficient resource allocation. Resources tend to move to where they earn the highest returns. If public policy artificially raises the returns in one sector relative to another, this will attract excessive investment and result in excess capacity. Inefficient resource allocation lowers the potential production of the economy as a whole and reduces per capita income. When public policy diverts, say, investment capital or water from more to less productive uses, this lowers national income.

While farming has changed a great deal since the 1930s, farm policy instruments have not been adapted to the changing structure of farming and the environment in which it operates. Average sales of commercial farmers have grown rapidly, and the benefits from farm programs tend to be concentrated on the largest producers, despite payment limitations for some programs. Moreover, the benefits from the programs have tended to become capitalized into land values, thereby increasing landowners' wealth. Once this happens, land values can fall unless the government continues to support the product price. The threat of reduced land values and reduced returns on past capital investments provides farmers with a strong incentive to lobby against reductions in price supports, even when it has become obvious that existing price supports are well above market-clearing levels. The prospect of continued price supports thus creates false expectations and encourages investments that would be unprofitable if price supports fell. Farmers who act in good faith upon these expectations feel they have been cheated if price supports are later reduced or eliminated. Nevertheless, short of paying farmers to retire resources from production, the only way to induce the needed resource adjustment is to allow capital losses and attempt to ease the adjustment by reducing price supports gradually.

Public policy appears to have induced excessive investment in parts of U.S. agriculture at various times. The cost of these misallocations does not always show up in the Federal budget. For example, sugar

producers and processors enjoy substantial income transfers as a result of protection from imports. Because of the way the program operates, the consumer bears all of the cost of these income transfers. Nevertheless, the costs are no less real than if the prices were supported by direct Federal Government purchases.

GUIDELINES FOR FUTURE FARM POLICY

Modern American agriculture has become well integrated into the world market and into the rest of the U.S. economy. As exports have grown, total demand for American agricultural products has become more price responsive, but the variability of that demand has also increased. This deepens the sector's susceptibility to periodic excess capacity, as at the present. When the Agriculture and Food Act of 1981 was passed, most observers thought that real farm prices would rise through the 1980s. In less than a decade, we have gone from fears of worldwide food shortages to such large stocks that we paid farmers to reduce harvested acreage by 55 million acres in 1983. This experience illustrates the need for flexibility in setting farm support prices. The present U.S. farm policies support the price to farmers in countries that compete with us for export markets and impede our ability to export. We need to allow prices to reach market-clearing levels if we wish to compete in the export market. If this is not done, a significant part of the resources in American agriculture will remain underemployed until the total quantity of these resources is significantly reduced.

Price supports do little to help farmers with below-average income because benefits are distributed in proportion to sales. A more efficient and equitable way to help low-income farmers would be to transfer income to them directly. While most commercial farmers do not have low average incomes, their incomes are variable, because variability in weather and in exports create instability in both supply and demand. The resulting instability in cash flow makes modern American farming a risky business.

There are better ways to reduce risk besides outright price supports. One is through insurance. Historically, when farmers lacked insurance markets in which to insure against fluctuations in yield and prices, the government provided price supports and various forms of subsidized crop insurance. Today farmers can ensure a specific price through forward contracting or selling futures contracts, although relatively few avail themselves of this opportunity. Farmers generally prefer not to commit themselves early, worried that they may lose the opportunity to sell at a higher price later if the market price rises.

This year trading in commodity futures options is scheduled to recommence on a trial basis for the first time in 50 years. With a put option, crop producers will be able to buy the right to sell their future production at a specified price without incurring the obligation to sell at that price. This may be more attractive to producers than selling on the futures market. In a similar manner, livestock producers will be able to buy insurance against increases in the price of their feed by buying call options. Thus, the resumption of trading in commodity futures options will allow farmers to insure against price risk. If the experiment is successful, there will be less need for the Federal Government to provide price insurance through price supports.

Buffer stock programs such as the Farmer Owned Reserve are designed to reduce variability in agricultural commodity prices. If these programs are continued, the acquisition price should be set below the expected long-run world market-clearing price. Setting the acquisition price too high would reduce exports and support the whole world market price structure. Stocks would become excessive, as happened in 1981 and 1982. In addition, the price band needs to be adjusted over time on the basis of world price movements, as is now done with soybeans, to reflect long-run trends in market conditions.

Agriculture, like other trading sectors, is strongly affected by interest rates and the value of the dollar. Therefore, macroeconomic policy is as important to farmers as farm policy. Special measures to shield one sector from the adverse effects of macroeconomic policy draw resources away from other sectors and place a greater adjustment burden on them. It would be more efficient to alter the macroeconomic policies that are damaging the traded goods sectors.

Because the United States is a large agricultural trading country, it has a large interest in further liberalization of agricultural trade and in securing more satisfactory rules concerning use of agricultural export subsidies. In past rounds of multilateral trade negotiations, substantial progress was made in lowering tariff barriers to agricultural trade. However, little progress on reducing nontariff barriers, such as quotas and variable import levies, has occurred. If we hope to persuade other countries to liberalize access to their markets for our exports, we have to be ready to offer freer access to our market for their exports. Freer access would also tend to stimulate economic growth in developing countries, and, over the longer run, increase their demand for our exports.

American agriculture has a long and remarkable record of producing abundant supplies of wholesome food for a growing Nation and for export around the world. But, the budget cost of farm programs has reached a level that is not sustainable. We must adopt policies to

encourage the necessary resource adjustment. National income would likely increase as a result of more efficient resource allocation, consumers would pay an even smaller fraction of their income for food than they do now, and farmers would benefit from greater economic health of their industry.

CHAPTER 5

Financial Market Deregulation

OVER THE PAST FEW YEARS, financial markets have undergone sweeping changes of a magnitude not seen since the 1930s. Despite these changes, the process of market restructuring and regulatory reform remains incomplete. Additional regulatory changes of historic dimensions are being debated. The shape and scope of these reforms will be important to the American economy for decades to come.

The issues in financial regulation are many and complex. They include the safety and soundness of financial institutions, the problems of dealing constructively with changing technology, and the reduction of regulatory burdens to the maximum extent possible. Similar concerns are important in other industries where regulatory reform is being debated. But the financial regulatory reform issues are in many respects far larger.

Financial regulation is not simply a matter of protecting poorly informed investors—the usual focus of consumer protection regulation—but of protecting everyone. In the financial crises experienced in 1933 and earlier in U.S. history, well-informed, prudent investors and depositors found themselves ruined financially. From painful experience, we know that a failure of public policy with respect to financial markets can create damage that extends far beyond the financial services industry. Financial market failure can mean economy-wide failure—recession, widespread unemployment, and bankruptcies.

The essential functions of financial regulation are to ensure the safety and soundness of the financial system, and to foster efficient allocation of capital by promoting competition and limiting opportunities for fraud and self-dealing. The competitive capital markets in the United States, long encouraged by public policy, have provided highly efficient links between the providers of funds and the users of funds, directing resources into the most productive investments in the economy. But instability in financial markets has been a continual concern, and at times a highly disruptive fact, throughout U.S. history. The challenge for regulatory policy is to maintain stability while realizing the benefits of competition.

MAJOR HISTORICAL FORCES SHAPING FINANCIAL REGULATION

It is best to begin the analysis of the key financial regulatory issues by considering the major forces that have shaped the industry and led to the present regulatory environment. These forces have included public reaction to periods of financial instability that occurred in the 1930s and earlier, public concerns over the credit powers of financial institutions and their ties with other institutions, and strong competitive pressures coming from both within and among the various segments of the industry.

FINANCIAL INSTABILITY

Much of our inherited regulatory structure involves extensive and far-ranging legislation enacted in response to crisis. Periods of acute financial instability have resulted in the disappearance of major institutions and the introduction of new governmental regulations. For example, in the 1860s, problems of Civil War finance and increasing currency disorders led the Congress to establish the national banking system and the Office of the Comptroller of the Currency. The Congress also defined the arrangements under which national banks would issue a national currency. Later, a series of banking panics—periods of numerous bank failures and bank suspensions of payments—culminating with the panic of 1907, created demands for a stronger Federal mechanism to prevent instability. This led to the establishment of the Federal Reserve System in 1913.

In the 1930s, the collapse of the banking system and the Great Depression led to major banking and securities acts that set the basic structure of our banking and financial regulation. The legislation, among other things, established the Federal Deposit Insurance Corporation, the Federal Home Loan Bank System, and the Securities and Exchange Commission.

The basic problem of financial instability that existed before extensive Federal involvement to stabilize the system arose because banking is based on a fractional reserve system. Banks accept deposits payable on demand. To meet depositors' demands, banks maintain reserves of cash and liquid assets that are a fraction of total deposits. In normal circumstances, the net drain on a bank's cash and liquid assets is small, because some depositors are putting funds into the bank while others are taking funds out. Moreover, if one bank is running short, another bank ordinarily has surplus funds. Bank funds can be borrowed and lent in the interbank market, known as the Federal funds market. This market is extremely large and well developed.

In the financial panics that occurred in the 1930s and earlier, however, depositors came to distrust banks; they withdrew funds and held them in the form of currency. One bank's deposit drain was not offset by another bank's deposit inflow. Because bank assets consist partly of cash reserves but mostly of loans to households and businesses, banks experiencing cash drains were forced to curtail lending, and perhaps to liquidate outstanding loans. As a result, borrowers were forced to scramble for funds. Business activity and employment fell, and interest rates on business and consumer borrowing often rose.

As the business contractions continued, previously sound firms found that they could not service their debt, nor could unemployed workers pay theirs. Banks that had been unaffected by the developing crises found that their once sound loan portfolios had become shaky. Fearing more bank failures, depositors rushed to withdraw funds from those sound banks. As the downward pressures accumulated, the financial crises deepened.

This brief description of the development of financial crises shows that a financial system based on fractional reserve banking is potentially unstable: given a big enough shock or disturbance, rational and predictable responses by banks, businesses, and households will tend to make the problem worse. There need be no villains for a financial crisis to occur. A crisis could develop even though every participant acted responsibly.

Two types of governmental institutions now serve to prevent a financial panic from cascading into a collapse of the banking system. First, the Federal Deposit Insurance Corporation, the Federal Savings and Loan Insurance Corporation, and the National Credit Union Administration provide deposit insurance so that the failure of one unhealthy institution will not produce panic runs on healthy institutions. Second, the Federal Reserve System, as the Nation's central bank, stands ready to provide extra liquidity to the banking system. When a scramble for a relatively fixed amount of currency threatens to produce a crisis, the Federal Reserve can increase the total amount available, thus meeting extraordinary demands. A scramble for currency forces cumulative reductions in the total money stock, but the Federal Reserve can prevent the process from starting in the first place by using its policy instruments to keep the money stock growing reasonably smoothly.

CREDIT POWERS OF FINANCIAL INSTITUTIONS

A major theme running through U.S. financial history is that of concern over the power of financial institutions, primarily banks, as lenders, and not just as depositories. This concern is responsible for

many banking and financial market regulations. Issues of competition and concentration, of fair and reasonable interest rates, and of equitable access to credit, have long been controversial topics in the regulatory debates.

It is essential that monetary and credit issues be kept analytically separate. We have tended to extend regulation over the credit activities of financial firms because of incomplete understanding of the monetary functions of banks. For example, although there is no evidence to support this proposition, bank failures in the early 1930s were attributed in part to the role of banks in the securities business. This belief led to provisions in the Banking Act of 1933 (Glass-Steagall Act) requiring the separation of banking and securities activities. Similarly, regulations setting minimum margin requirements for securities purchases, prohibiting the payment of interest on demand deposits, and limiting the interest paid on time and savings deposits, were based on the view that regulation of the credit markets was necessary to ensure financial stability.

The evidence, however, indicates that banking abuses are not themselves the basic cause of financial instability. A steady stream of bank failures occurred in the 1920s without causing generalized financial stress. On the other hand, in the absence of a proper governmental monetary framework, there is a danger of banking system collapse even if all banks individually pursue sound and conservative banking policies.

THE FORCES OF COMPETITION

Competitive pressures have been an important force in shaping the financial industry. Yet much of the legislation of the 1930s, and in other periods as well, has been designed to restrict competition, particularly in banking, so as to maintain financial stability. Much of this legislation rested on faulty analysis. Indeed, restrictions on competition have not only led to costly inefficiencies in the provision of financial services and reduced consumer choice, but also may have contributed to instability.

The forces of competition in financial markets are powerful. The organized exchanges and over-the-counter markets in standardized financial instruments are obviously highly competitive. What is less obvious is the competitive nature of transactions involving nonmarketable financial instruments. For example, a bank's loan to a small business or a household, which is ordinarily not a marketable financial instrument, is often negotiated in a competitive setting. In many areas of the country borrowers can choose among numerous possible lenders. By shopping around, they can select the most favorable com-

bination of interest rate, terms, and service. In doing so, they constrain lenders to provide competitive loan rates and terms.

Although most financial markets are highly competitive for most participants, there are exceptions. In some cases geographical restrictions reduce the competition in local markets because financial firms from other areas are denied entry. The loss of competition primarily affects smaller local businesses and households; larger businesses can place deposits with, and obtain credit from, the larger financial firms competing in regional or national markets.

One measure of the depth of competition among financial firms in the United States is that there are more than 35,000 independent banks, mutual savings banks, savings and loan associations, and credit unions with approximately 100,000 offices nationwide. To be sure, some part of this large number may reflect unit banking and other restrictions, but it is likely that even without such restrictions the number of depository institutions would be large. In addition, insurance companies, securities firms, money market mutual funds, finance companies, and other types of financial institutions compete with the depository institutions in providing many services. Table 5-1 provides data on the numbers and assets of these institutions. Finally, many large borrowers can bypass financial intermediaries altogether by selling stocks, bonds, and commercial paper directly to the market.

TABLE 5-1.—*Number and assets of selected financial institutions as of December 31, 1982*

Type of institution	Number	Assets (millions)
Commercial banks	14,543	1,862,724
Branches	40,349	.....
Savings and loan associations[1]	3,833	706,045
Branches	18,712	.....
Mutual savings banks	424	174,197
Branches	2,777	.....
Credit unions [2]	16,589	76,120
Money market mutual funds [3]	255	221,558
Life insurance companies	2,060	588,163
SEC-registered broker-dealers	8,299	.....

[1] Data are preliminary.
[2] Excludes approximately 3,400 nonfederally insured State credit unions.
[3] Data as of December 29, 1982 for funds reporting to Donoghue's Money Fund Report.

Source: Compiled by Council of Economic Advisers.

There is an important consequence of this competitive environment. Many of the regulations put in place in the 1930s that were designed to prevent "excessive competition" have been eroded by pressure for efficiency and innovation. In many instances profitability can be improved by avoiding costly regulation. When firms find ways to avoid regulation, other firms are attracted to similar strategies,

both to maintain their profitability and to protect their competitive positions.

Although the forces of competition usually prevail in the long run, the costs of unnecessary regulation should not be ignored. The amount of unproductive labor devoted to regulatory compliance and avoidance is far from trivial. Moreover, established firms can find their market positions, expertise, and capital eroded as they attempt to cope with outmoded regulatory constraints while competing against less constrained firms. Regulation, more than restraining competition, forces it into new channels. As a result, resource allocation is distorted and unnecessary costs are imposed on consumers, shareholders, and taxpayers.

The importance of the competitive constraint on financial regulation can hardly be overemphasized. But neglect of it in the past has led to many of the regulatory problems the Nation has faced. Important recent examples include the market distortions engendered by ceilings on the interest rates financial institutions were permitted to pay to their depositors, and the growing banking competition from nonbanking firms such as securities firms that are not subject to traditional banking regulations.

Many observers decry the effects of competition in breaking down regulation, but it is not possible to obtain the benefits of competition—the market constraint on interest rates, the incentives for efficiency and innovation, and the dispersion of economic power—without having these same forces work toward the avoidance of regulation. Indeed, competition may break down unwise regulation that never should have existed.

It is often the case that legislation designed to solve one problem creates others. Most observers agree that the danger of a financial crisis has been reduced to an extremely low level. However, deposit insurance, interest rate controls, and other restrictions on bank activities introduced in the 1930s—initiatives viewed at the time as contributing to financial stability—have had unexpected side effects.

Recent legislation, the Depository Institutions Deregulation and Monetary Control Act of 1980 and the Garn-St Germain Depository Institutions Act of 1982, have begun to deal with these new issues. Fortunately, the new legislation has been enacted in a setting very different from the crisis atmosphere existing in the 1930s. To be sure, recent years have seen major stresses on the financial system; the failure rate of financial institutions has risen. But the driving force behind recent and newly proposed legislation has been an attempt to modernize the regulation of financial markets and institutions—to retain what is essential in earlier legislation and sweep away what has proved unnecessary or counterproductive.

CEILINGS ON INTEREST RATES

The market's response to interest rate ceilings on time and savings deposit accounts provides an example of regulatory avoidance in a highly competitive market and the unnecessary costs incurred in the process. Interest rate ceilings evolved from the legislation of the 1930s. The intent was to restrain "excessive price competition," then thought to have contributed to the banking collapse in 1933. It was also felt that the introduction of Federal insurance of bank deposits gave the government a special responsibility to protect the commercial banking industry from competitive pressures that might strain the resources of the insurance funds.

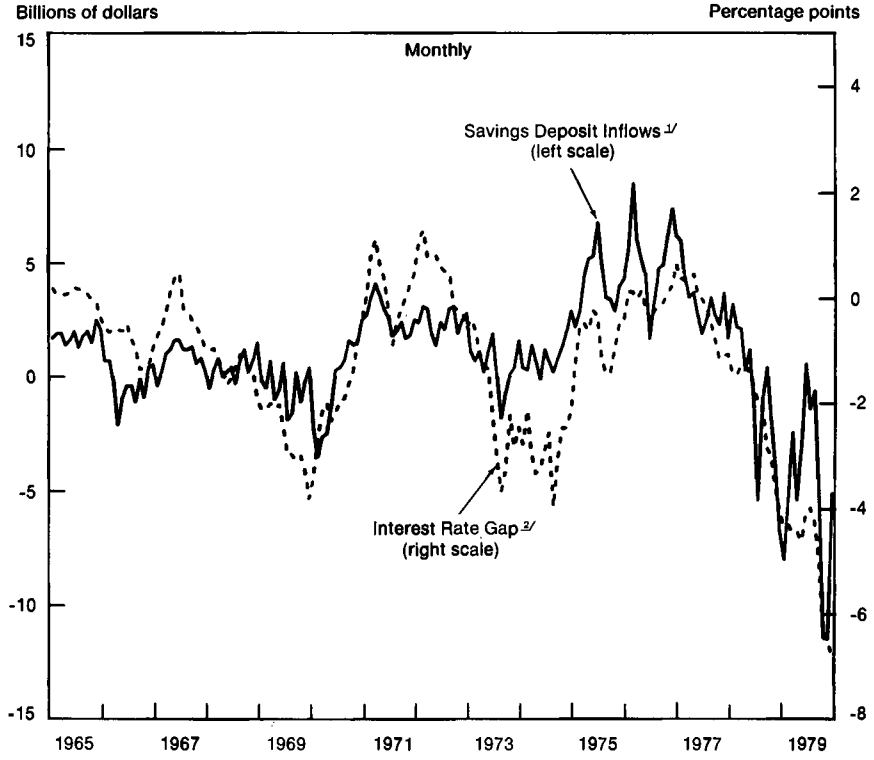
Until 1966 interest rate ceilings on commercial bank deposits were intermittently changed to remain above market interest rates. In 1966, however, market interest rates rose significantly above the rates thrift institutions were earning on their long-term mortgage portfolios, threatening their solvency. The ceilings on bank rates were allowed to become binding in an attempt to prevent commercial banks from bidding funds away from mortgage lending. To prevent thrift institutions from engaging in a self-destructive bidding war, ceilings were also extended to federally chartered savings and loan institutions and mutual saving banks.

In the short run, this emergency 1966 legislation may have helped to stave off the bankruptcy of some thrifts. However, as the "emergency" ceilings were extended year by year, the artificially low rate of interest on bank and thrift accounts encouraged savers to withdraw their funds from financial intermediaries in favor of other forms of saving. This phenomenon came to be known as disintermediation. Chart 5–1 shows savings deposit inflows at banks and thrifts against the interest rate gap between the ceiling on passbook accounts and market rates. It illustrates the volatility of deposit flows with binding interest rate ceilings in place.

In many ways the effects of the ceilings were the opposite of those intended. For example, the ceilings were intended to ensure a stable flow of mortgage funds. However, they actually led to widespread disintermediation whenever rising market interest rates made other savings vehicles more attractive, so that they effectively destabilized the flow of mortgage money. The ceilings were supposed to make it easier for lower-income families to afford housing by lowering mortgage rates. In fact, the interest rate ceilings advantaged wealthier investors who could meet minimum balance requirements on higher yielding accounts, and who had access to unregulated investments. As a result, the greatest burden of the regulation was borne by small-

Chart 5-1.

Savings Deposit Inflows versus the Interest Rate Gap



1/Change in savings deposits at commercial banks and thrift institutions (seasonally adjusted averages of daily figures).
2/Ceiling on passbook savings accounts at commercial banks less rate on 3-month Treasury bills (both measured in percent per annum).
Sources: Department of the Treasury and Board of Governors of the Federal Reserve System.

er savers. Moreover there is little evidence to suggest that the rate ceilings were effective in keeping mortgage interest rates down.

Rate ceilings were often effectively circumvented through nonprice competition and through investment in unregulated instruments. Extensive branching, free checking and financial services, expensive promotions, and "free" gifts were among the many forms of implicit interest that banks and saving institutions used to attract customers. As market interest rates rose through the 1970s, the diversion of funds into unregulated instruments led to attempts to "tune" the ceiling structure for different categories of deposits. The number of different accounts subject to ceilings went from 2 in 1965 to 24 by

1979. These attempts to restrain disintermediation were not very successful. A new ceiling-free investment vehicle, the money market mutual fund, became increasingly popular. Balances in these accounts jumped from $6.4 billion in 1978 to $150.9 billion by 1981.

Unintended effects and widespread opportunities for avoiding the ceilings, among other things, led to the passage of the Depository Institutions Deregulation and Monetary Control Act in 1980, which mandated the gradual removal of ceilings by 1986. At the Administration's request the Depository Institutions Deregulation Committee has accelerated the phaseout of rate ceilings. By the end of 1983 fewer than one-fourth of interest-bearing deposits were in rate-restricted accounts.

DEREGULATION AND MONETARY CONTROL

Interest rate ceilings not only provoked bouts of disintermediation, but also damaged the ability of the Federal Reserve to measure and control the money stock. The ceilings also reduced the stability of the link between changes in the monetary aggregates and changes in nominal income, making the task of managing monetary policy more difficult.

When market interest rates rose significantly above ceiling rates, funds flowed out of traditional financial intermediaries, new deposit categories were defined by the regulators, and money market mutual funds emerged to offer deposit-like accounts that were beyond the direct control of the monetary authorities. As a result, market reaction to binding interest rate controls resulted not only in a less predictable environment for making monetary policy, but also in conceptual changes in the definitions of the monetary aggregates.

The 1980 Depository Institutions Deregulation and Monetary Control Act contained provisions that, when full adjustment to them is completed, will significantly improve the potential for accurate Federal Reserve control over the monetary aggregates. For one, the act mandated a phaseout of interest rate ceilings on interest-bearing accounts. The Garn-St Germain Depository Institutions Act of 1982 continued the process by authorizing a new ceiling-free account, the money market deposit account. Both steps should prevent circumstances in which these components of the broader monetary aggregate, M2, become suddenly less attractive than savings vehicles not included in M2. As a result, new episodes of large-scale disintermediation are unlikely to occur.

A proposal currently being discussed, that would go still further in the direction of decontrolling deposit interest rates, would allow banks to pay interest on ordinary demand deposit accounts, and

would require the Federal Reserve to pay interest on required reserves held against deposits. The cost of paying interest on reserves could be offset by increasing taxes or charges on institutions subject to reserve requirements. There are good arguments for such a proposal. Paying interest on reserves would eliminate the disadvantage that deposit accounts subject to reserve requirements have in relation to nonreservable accounts, such as money market mutual fund accounts. But perhaps the strongest is that once portfolio adjustments associated with the change are completed, paying interest on deposits and reserves would tend to stabilize M1 velocity—the ratio of gross national product (GNP) to the narrowly defined money stock, M1—and therefore facilitate monetary policy.

One cause of fluctuations in velocity is changes in the opportunity cost of holding money—the difference between market interest rates and interest rates on deposit accounts. Because ordinary demand deposits do not earn interest, the willingness of individuals and businesses to hold deposit balances changes inversely with market interest rates. For example, when market rates rise, depositors may attempt to economize on their holdings of non-interest bearing deposits by acquiring interest-earning assets. In the process, monetary velocity rises; for any given level of GNP, depositors hold less money.

Changes in the velocity of money complicate the job of stabilizing nominal incomes. If interest were paid on both demand deposits and reserves, the spread between the rate that competition would force banks to pay on those deposits and the rate that could be earned on other assets would reflect the resource costs associated with providing transactions services to depositors. As a result, the opportunity cost of holding money would be more stable, and it is likely that this would tend to stabilize M1 velocity.

Another provision in the Depository Institutions Deregulation and Monetary Control Act that has improved the climate for monetary control is the imposition of uniform reserve requirements for most types of accounts. Under the legislation, the Federal Reserve is empowered to set reserve requirements, not only for member banks, but also for nonmember banks and nonbank depository institutions, such as savings and loans, mutual savings banks, and credit unions. The reserve requirements cover all transaction accounts, including negotiable order of withdrawal (NOW), Super-NOW, and other automatic transfer accounts. Uniform reserve requirements are being phased in gradually. The process will be complete in 1987.

When uniform reserve requirements are fully phased in, the link between reserves and transactions balances should be tighter than in the past. Transaction deposits at depository institutions have been subject to widely varying treatment. These institutions have faced dif-

ferent reserve requirements depending on their size, location, and whether they were members of the Federal Reserve System. Some State-chartered institutions have not been subject to any reserve requirements. As deposits have shifted among accounts subject to different reserve requirements, the lending and money-creating capacity of the banking system would change without any change in the supply of reserves. Thus, the relationship between reserves and deposits has been subject to unexpected changes. Uniform reserve requirements will reduce this source of variability, and enhance the ability of the Federal Reserve to control the money stock.

GEOGRAPHICAL AND LINE-OF-BUSINESS RESTRICTIONS ON DEPOSITORY INSTITUTIONS

Depository institutions have historically been subject to a number of Federal and State laws that restrict their entry into new geographical markets and nonbanking lines of business. These laws were generally intended to prevent capital outflows from rural areas into financial centers and to stabilize the banking system. However, there is little evidence that they have served either purpose. Instead, they have impeded the development of integrated financial service companies and resulted in a financial services sector with smaller and more numerous firms than would have otherwise developed. They also have impeded the development of businesses that offer both financial and nonfinancial services, despite possible economies from such a structure.

Technological changes, limited deregulation, and the introduction of bank-like services by securities firms and others have eroded the force of these legal prohibitions and encouraged some expansion and diversification by banking firms. These changes have intensified the debate over further loosening geographical and line-of-business restraints. At issue is whether further deregulation will lead to more efficient and competitive financial services markets or promote concentration, instability, and undesirable trade practices.

GEOGRAPHICAL MARKET REGULATION

A complex set of Federal and State laws governs expansion of depository institutions into new geographical markets. In general, the controlling law depends on the type of institution, whether it is chartered under Federal or State law, and the State in which it is located.

The most cumbersome restrictions are those imposed on commercial banks. With few exceptions, interstate branching is prohibited for banks, whether national or State chartered. Intrastate branching of both national and State banks is controlled by the law of the host

State. Historically, most States have restricted intrastate branching, either by prohibiting it altogether or limiting the number or location of branches (Table 5-2). Some relaxation of these restrictions has occurred, but approximately half the States still place some limitations on intrastate branching. Federal geographical restrictions generally conform to State policies.

TABLE 5-2.—*State restrictions on intrastate branch banking, selected years, 1929-83*

[Number of States]

Classification	1929	1951	1961	1983
Branching prohibited	28	17	16	8
Branching permitted but geographically limited	11	14	15	18
Unlimited branching	9	17	19	24

Sources: American Bankers Association and Board of Governors of the Federal Reserve System.

The restrictions on geographical expansion by State savings and loan associations are similar to those on banks, except that many fewer States limit intrastate branching. There are no statutory limitations, intrastate or interstate, on branching by Federal savings and loan associations. However, the Federal Home Loan Bank Board limits interstate branching except where necessary to rescue failing institutions, and it observes the limitations imposed by the few States that do restrict intrastate branching of State-chartered savings and loans.

States generally enacted geographical restrictions on bank expansion for two reasons. First, it was thought that such restrictions would prevent the outflow of funds from localities into financial centers and thereby increase the availability of loans to farmers and small businesses. Second, the laws were intended to preserve local ownership and management of banks.

There is no evidence that branching limitations do in fact constrain the flow of loanable funds. Interinstitutional and interregional capital markets are so well developed that local deposits are as easily loaned out across the country as across the neighborhood.

Even the effect of these laws in promoting local control is questionable. Depository institutions have been able to circumvent the prohibitions either by using holding companies or by offering only limited services in geographical areas where they cannot establish regular branches. In all but five of the States that impose restrictions on intrastate bank branching, for example, bank holding companies may be used to create a statewide banking system by acquiring multiple charters. The growth in the use of multibank holding companies over the past 20 years, from approximately 50 independent companies holding less than 10 percent of total bank deposits to more than 600 companies with over 57 percent of total bank deposits, is attrib-

utable in substantial part to the ease with which they can be used to circumvent intrastate branching limitations.

Until the enactment of the Bank Holding Company Act of 1956, the holding company structure could be used to circumvent interstate as well as intrastate branching prohibitions. Provisions of the act, however, prevent a bank holding company from acquiring more than a small interest in a bank outside the States in which it is already engaged without the approval of the State to be entered.

In 1970 changes to the Bank Holding Company Act permitted most banking-related services to be offered interstate, except for deposit-taking. The 1970 changes also narrowed the definition of "bank" to include only institutions that both accept demand deposits *and* make commercial loans. As a result, bank holding companies and others have been able to establish interstate networks of "nonbank banks," consumer finance companies, mortgage companies, and the like, that escape regulation by either not accepting deposits or not making commercial loans. More recently, the Garn-St Germain Depository Institutions Act of 1982 empowered bank regulatory authorities to permit acquisition of failing institutions across State lines.

These changes, plus recent advances in communications and data processing technologies that appear to have reduced the costs of managing multi-office banks, have led to a substantial increase in the level of interstate banking activity. Of approximately 55,000 offices engaging in banking-related activities, more than 7,800 are now located outside the home State of the parent entity. Even these numbers understate the amount of interstate banking activity because they do not reflect the substantial use of shared interstate automated teller machine networks or the phenomenal growth in the provision of bank-like services by interstate securities firms.

The rapid pace at which *de facto* interstate banking is emerging—despite seemingly substantial legal barriers—is one obvious indication of the strength of the forces for change within the financial services industry. These forces are also manifest in the numerous proposals for changes in both Federal and State law. Three New England States have recently adopted laws that provide for entry by out-of-State banks headquartered in other New England States with similar laws, and similar regional reciprocal entry arrangements are under active consideration in several other areas of the country. Other States have modified their banking laws to permit at least some entry from out-of-State, and the evolutionary movement away from intrastate limitations continues. At the Federal level, a number of legislative proposals are now pending that would reduce Federal restrictions on interstate banking.

If geographical restrictions are relaxed, the number of independent banking entities would almost certainly be reduced. States with unit-banking laws presently have approximately 107 independent banking entities per million residents, compared with 72 for limited branching States and only 20 for States with unrestricted branching. The most credible explanation is that branching restrictions impede access by large banks to deposit accounts and small loan business outside their home territories. Deposit accounts have historically been the lowest cost source of funds for banks, and full-service branches are important in marketing consumer and small business loans. Impeded access has therefore inhibited the growth of large firms and favored smaller firms.

However, geographical market deregulation would probably increase the number of banking offices operating in most communities. "Unit-banking" States, those that prohibit all branching, have approximately 182 commercial bank offices per million residents compared with 243 offices per million residents for other States. Although other factors may contribute to the difference, branching prohibitions are probably a significant reason for the lower ratio of banking offices to population in unit-banking States.

On balance, these two changes should increase competition and benefit consumers. The relevant market for retail deposits and small loan customers is compact—the locality or even the neighborhood. Although geographical market deregulation is likely to decrease the total number of depository institutions nationally, each competitor will compete in more local markets. Moreover, the number of potential entrants into each local market will also increase.

Nor would deregulation eliminate all smaller institutions. A recent study concluded that there are unlikely to be large, if any, economies of scale for most important banking services. The best existing data indicate that the costs of providing traditional banking services reach a minimum for institutions in the $50 million to $100 million asset range. Moreover, it does not appear that most bank customers will pay a premium to bank with interstate firms. The experience in States without intrastate branching restrictions is that many small institutions survive and prosper. In fact, smaller banks and thrifts not only coexist with larger ones, but generally have higher profitability on bank assets. Although some institutions, particularly less well-managed ones, will disappear as separate entities, they will most likely be acquired by more efficiently run organizations that will operate them as branches.

LINE-OF-BUSINESS RESTRICTIONS

Federal law embodies a long-standing policy of separating banking from unrelated lines of commerce. Today, as a general rule, banks may not engage in nonfinancial businesses unrelated to banking, either directly or through subsidiaries, nor may bank holding companies or their affiliates. Similar, though somewhat less stringent, prohibitions apply to savings and loan associations and holding companies controlling two or more savings and loan charters. Holding companies that control a single savings and loan association or any number of "nonbank" banks, however, are not subject to Federal line-of-business limitations.

The line separating commercial banking from other financial services is much less distinct. Until the 1930s, State and national banks regularly engaged in underwriting and dealing in securities, often circumventing legal prohibitions by pursuing such activities through affiliated companies. Because of the popular belief that banks had contributed to the Great Crash by promoting speculative securities and unloading worthless issues into trust and customer accounts, the Banking Act of 1933 (the Glass-Steagall Act) was passed. Provisions of the act attempted to divorce banking and the securities industry by barring banks from underwriting or dealing in nonbank securities, whether debt or equity.

The Glass-Steagall separation is incomplete in a number of ways. First, the act's prohibitions against the affiliation of banks with securities firms apply only to banks that are members of the Federal Reserve System, and not to the many State-chartered nonmembers. All banks, however, are prohibited from underwriting securities directly, and securities firms may not take deposits. Second, Glass-Steagall allows all banks to distribute and trade in general obligation government securities. Third, the act authorizes banks to buy and sell any securities for the account of bank customers, provided that such transactions are "without recourse" against the bank.

Until recently, the gaps in the Glass-Steagall Act, except those permitting trading in government securities, were inconsequential. Banks did not aggressively pursue brokerage business because regulatory restraints made it unprofitable. In January 1983 these restraints were relaxed, and as a result thousands of depository institutions now engage in securities brokering.

ECONOMIC ISSUES IN LINE-OF-BUSINESS DEREGULATION

Proposals to ease line-of-business restrictions on depository institutions have spurred much debate. Proponents argue that economic efficiency would be increased by permitting these institutions to underwrite and deal in securities and by expanding their power to engage

in collateral lines of business such as insurance underwriting and sales, real estate development, and management consulting. Opponents argue that these changes would increase the riskiness of banking, result in unacceptable concentrations of market power, lead to self-dealing and conflict-of-interest abuses by banking firms, and be unfair to bank competitors.

Product-line deregulation may promote economic efficiency in two ways. First, it may reduce the total cost of providing multiple services by consolidating their provision within a firm. Such savings can result from spreading fixed costs over more activities, improving communications, and effecting synergies in production. Second, customers may benefit from the extra convenience associated with conducting their business with a single firm.

The magnitude of the economic benefits from relaxing line-of-business restrictions is uncertain. Specific cost data for depository institutions and their customers are limited, and reliable estimates of the cost savings from product line deregulation do not exist. Over the past several years, however, several large firms have integrated over a broad spectrum of businesses, including insurance, real estate, and securities underwriting and brokering. Although it is too early to assess the economic success of these ventures, their development is evidence that the market believes that substantial economies from the integration of these businesses are possible. Indeed, much of the pressure for reconsidering line-of-business restrictions on banks has come from members of the banking community who argue that relaxation of these restrictions is necessary for them to meet competition from nonbanking firms offering integrated services.

Product line diversification does, however, raise issues of some concern regarding banking stability. The existence of Federal deposit insurance gives insured institutions an incentive to take undue risks in the hope of earning greater than normal returns. Accordingly, much of the supervisory efforts of banking regulators is directed at preventing excessively risky banking practices. As a practical matter, as the range of business activities increases, it may become much more difficult for regulators to thwart excessive risk-taking.

The Administration's proposed legislation, the Financial Institutions Deregulation Act, strikes a balance by easing restrictions on nonbanking activities but requiring that they be conducted only by separate corporate affiliates that are not bank subsidiaries. This approach has two significant advantages. First, by removing nonbanking activities to affiliates, the bank itself can be regulated and supervised on the basis of the traditional methods developed by the regulatory agencies over many years. Second, because the affiliates are to be subsidiaries of the holding company rather than of the bank itself,

the bank would be insulated from any financial problems that occur in the subsidiary.

There is, of course, no way to guarantee that difficulties in an affiliate will not affect the bank. But with proper safeguards the problems can be minimized. Moreover, it is important to recognize that attempts to seal off banking from collateral activities is a recipe for an endless expansion of regulation. Brokerage firms are now expanding bank-like activities rapidly. Extending regulation to these bank competitors would simply push regulatory avoidance to another channel. There is, in addition, far more danger of financial instability from unregulated banking substitutes than from properly supervised banks permitted to expand their powers within well-designed corporate structures.

A similar point may be made with respect to predictions that increases in self-dealing and conflicts of interest will result from repeal of Glass-Steagall. The potential for these abuses is already present in both commercial and investment banking. For example, broker-dealers already represent both purchasers and sellers, deal for their own account, provide investment advice, manage mutual funds, and act as fiduciaries with respect to trust or discretionary accounts. Bank trust departments may transact in the securities of bank customers.

In fact, legal and market forces have limited self-dealing and conflict-of-interest abuses. Legal standards governing fiduciary behavior are strict, and the conduct of fiduciaries is subject to regulation. In addition to legal mechanisms, market forces are extremely important. Systematic abuses by a bank's trust department would, for example, reduce the return on the portfolios it manages, causing it to lose business to competitors. Although one cannot say that no such abuses will occur, existing controls should keep them to a minimum.

Line-of-business deregulation also poses issues of fairness. Opponents of changes to existing law have argued that depository institutions could operate collateral lines of business with low-cost capital, benefiting from access to the Federal Reserve's discount window, and an implicit subsidy from Federal deposit insurance. They charge, for example, that some industrial companies and retailers have acquired a deposit-taking "nonbank" bank or a single savings and loan association to finance their own activities or customer purchases of their products and services with low-cost capital.

This argument ignores the fact that the profitability of a consolidated enterprise cannot be increased by charging an affiliated business or customer a submarket rate of interest. Any attempt to do so will reduce the profitability of the bank, leaving the earnings of the enterprise unchanged. In other words, if a bank has access to low-cost capital, it will be profitable to its owner even if the bank pro-

vides no financing whatsoever for the parent company or its customers. As long as the capital market is competitive, the cost-of-funds differential between financing customers from bank deposits on the one hand and from selling commercial paper on the other will only be enough to cover the costs of operating the bank and to earn the going rate of return on the assets invested in the bank.

Another argument is that financial intermediaries would be able to compete unfairly by tying loans to the purchase of other services. It is not likely, however, that many financial intermediaries would find tying arrangements advantageous. Tying arrangements are a way in which a firm with market power can circumvent laws against price discrimination and increase its profits by selling different customers different quantities of tied-in products. It is unlikely that many banks have such market power, but even if some do, they could directly price discriminate by charging different interest rates to different customers.

Banking organizations, however, enjoy certain regulatory and tax advantages over nonbank competitors, particularly securities firms. Banks are largely exempt from regulation under Federal and State securities laws and, therefore, could enjoy a cost advantage in broker-dealer, underwriting, and investment management activities. Moreover, in determining taxable income depository firms may deduct interest paid on deposits, even if they are used to finance holdings of tax-free securities. This provision of the tax law may give them an advantage in carrying inventories of securities relative to nonbank securities dealers.

The problem of asymmetrical tax and regulatory treatment could be solved, either by modifying tax and securities laws or by allowing only affiliated entities to undertake such activities. The latter approach has been adopted in the Administration's Financial Institutions Deregulation Act. Under this act affiliated entities would not be exempt from the securities laws, nor be subject to favorable tax treatment.

DEPOSIT INSURANCE REFORM

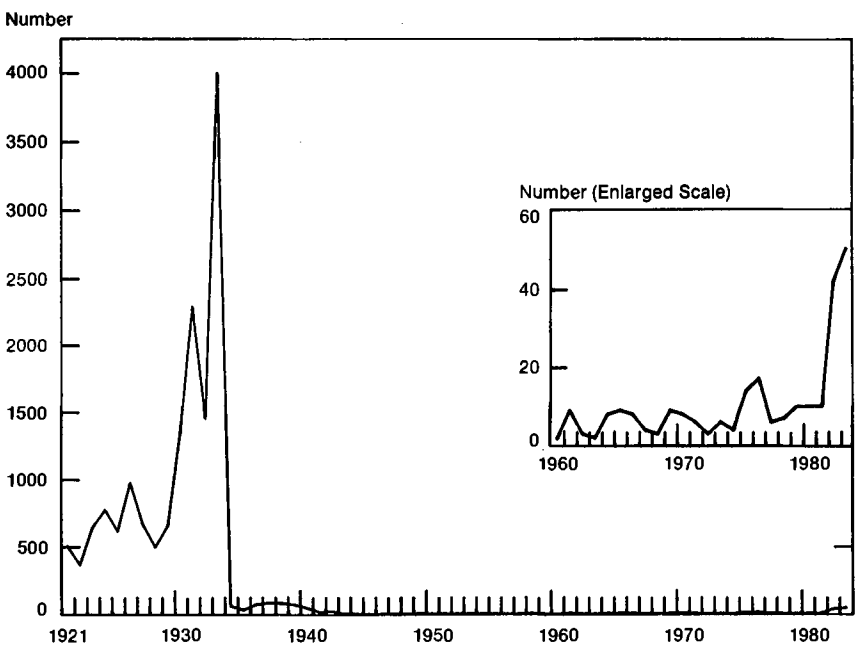
In today's financial market, the traditional depository institutions, commercial banks, and thrifts compete with money market mutual funds and brokerage firms in offering highly liquid deposit accounts that pay competitive rates of interest. Commercial banks and thrifts, however, retain a unique position relative to their newer competitors, because their liabilities are federally insured. The system of Federal deposit insurance was created as part of the Banking Act of 1933. Under this law the Federal Deposit Insurance Corporation (FDIC) in-

sures deposit accounts for banks that are members of the corporation. A year later the Federal Savings and Loan Insurance Corporation (FSLIC) was established to provide a similar arrangement for the savings and loan industry.

The purpose of the FDIC was to eliminate the financial panics and bank runs that had long plagued the economy, one of which culminated in the collapse of the banking system in 1933. Measured by that criterion, deposit insurance has been tremendously successful. There is wide agreement that earlier problems with financial market instability were not solved by creating a national currency, nor by imposing reserve requirements on banks, nor by the establishment of the Federal Reserve System, but by deposit insurance. Chart 5-2 illustrates the dramatic decline in bank failures after the FDIC was established.

Chart 5-2

Bank Failures



Note.—Data for 1983 estimated.

Sources: Comptroller of the Currency and Federal Deposit Insurance Corporation.

The volume of deposits insured by the FDIC and FSLIC has increased greatly in recent years as coverage limits have been raised and as new insured accounts have been introduced. Since 1950, the limits have increased at faster rates than inflation, and now stand at $100,000 per depositor. The introduction of money market deposit accounts in mid-December 1982 and ceiling-free Super-NOW accounts in January 1983, and the elimination of ceilings on most small time deposit accounts in October 1983 have also produced increases in the amount of insured deposits, as many customers have switched out of the uninsured accounts issued by money market mutual funds into the insured deposit accounts issued by banks and thrifts.

Federal deposit insurance gives banks, savings and loans, and credit unions an advantage in the competition for funds, and alters the structure of incentives in the industry. To some extent these advantages have been offset by competition-inhibiting restrictions on the amount of interest payable on deposit accounts, on allowable activities, and on opportunities for expansion into new markets. In recent years, deregulation and private market innovation have eliminated or reduced the force of many of these restrictions on competition, thereby increasing efficiency in the industry. However, the FDIC and the Federal Home Loan Bank Board, the parent of FSLIC, have argued that their ability to control risk-taking by institutions offering insured accounts has been impaired in the new environment. As a result, the deposit insurance system is currently being reassessed.

Because most of the expansion in the range of opportunities available to insured depository institutions has taken place only recently, conclusive evidence on the effect of these changes on failure rates of insured institutions and the dollar magnitude of actual payouts is difficult to determine. There has been a large increase in the number of failures in recent years. But this increase can be attributed primarily to the depth of the recent recession, which has exacerbated problems associated with insufficient diversification and mismatches between asset and liability maturity structures at some institutions that have long existed.

Nevertheless, changes in the risk characteristics of financial institutions that are taking place now may have a significant effect on failure rates in the future. In addition, financial institutions are still refining their strategies and tactics in the new financial environment, and so further changes in market practices can be expected.

THE IMPACT OF DEPOSIT INSURANCE

If deposit insurance were unavailable, depositors would have incentives to evaluate the riskiness of a depository institution's balance sheet and policies, because their deposits would be at risk. The exist-

ence of these incentives, and competition among intermediaries for funds, would impose strong discipline on managers to adopt sound portfolio policies. One obvious consequence of insuring deposits is that the incentives of insured depositors to evaluate risk are eliminated, so that market discipline is greatly diminished. As a result, it is up to the insurer either to design an insurance system that provides the correct incentives for the intermediaries or to impose restrictions on intermediaries that limit possibilities for excessive risk-taking.

Currently, the premiums charged by the FDIC and FSLIC are proportional to the amount of assessable deposits regardless of the riskiness of the intermediary's assets. Under this system, insured institutions have an incentive to take on more risk than they would otherwise, either by making riskier loans or by increasing leverage. Doing so does not subject them to higher premiums, and they obtain the benefits of the higher yields that normally accompany the assumption of greater risk.

With premiums unrelated to risk, therefore, regulation of insured intermediaries is justified. It is not coincidental that many restrictions on competition accompanied the introduction of deposit insurance in the Banking Act of 1933. In fact, the primary thrust of financial legislation through the 1930s, much of which is still in place, was to supplant or limit competition in the market for financial services, both to prevent bank failures and to protect the assets of the insuring agencies.

The undesirable consequences associated with many of these restrictions have already been discussed. To some extent the restrictions have simply redirected competition into other areas, some of which are socially wasteful, and have caused the industry to evolve in a less efficient manner than it otherwise would have. Moreover, to the extent that competition has been limited, the restrictions have served to reduce incentives to lower costs, and therefore prices. Reform must focus on incentives for limiting risk, rather than on restrictions on competition.

PROPOSALS FOR REFORM

Many proposals have been advanced to strengthen private incentives to control risk-taking by institutions offering insured accounts. The proposals can be grouped into the following categories:

- Tie insurance premiums to some measure of risk.
- Strengthen capital requirements.
- Increase the risk exposure of large depositors.
- Strengthen disclosure requirements.
- Privatize all or part of the deposit insurance system.

It appears that none of these proposals, taken alone, offers a completely satisfactory solution, but a combination could accomplish the goal of strengthening private incentives to control risk-taking, while preserving stability of the financial system.

Relate Insurance Premiums to Risk

Charging insurance premiums that reflect the riskiness of an institution's balance sheet and management capabilities is a solution with great theoretical appeal. If the premium paid to the insurer were actuarily fair, in the sense of covering the expected losses of the insurer given the risk and capital of the firm and the terms of the insurance contract, the incentive to take on additional risk at the expense of the insuring agency would disappear. This approach would seem to obviate the need for extensive regulatory constraints. Insured institutions would be free to structure their assets and liabilities and to compete in the financial marketplace on terms of their own choosing. Those electing to adopt aggressive strategies with respect to risk and return would simply pay higher premiums to compensate the insurer for their higher expected claims.

There are problems with risk-related premiums, however, stemming from the difficulties associated with measuring risk properly and determining an appropriate schedule of premiums. One important measurement problem arises from the role that diversification plays in reducing risk. The riskiness of a portfolio cannot be evaluated simply by examining the riskiness of individual assets. Portfolio risk depends more on the interrelationships among the assets and how they match up with the structure of liabilities.

Banks and thrifts have traditionally faced different types of portfolio risks. This is reflected in the experiences of failed or troubled institutions in these two industries. A major cause of bank problems and failures has been insufficient diversification. For example, many of the banks that have recently failed, or are now experiencing difficulties, had heavily invested in real estate loans, loans to the oil and gas industry, or to foreign borrowers. For savings and loans the principal problem has been excessive exposure to interest rate risk—the result of borrowing short, by accepting deposits either payable on demand or with comparatively short duration, and lending long, by writing long-term, fixed-rate mortgages. Until recently, savings and loans were subject to regulatory and tax provisions that encouraged them to accept substantial interest rate risk, since the provisions provided strong incentives to invest in long-term fixed-rate mortgages and since they were prohibited from reducing their exposure by other means.

In principle it is possible to quantify certain types of risk, for example, interest rate risk, provided that complete enough balance sheet

information is available. However, other types of portfolio risks are more difficult to assess objectively. The bank examination process, though important, contains subjective elements that make it unsuitable as an exclusive basis for setting premiums.

For these reasons, sole reliance on risk-based insurance premiums is impracticable. However, risk-based premiums may play a useful role as part of a package of reforms designed to deter excessive risk-taking. To implement a risk-based system, the elements of risk that are measured must be clearly related to failure, and the premium structure must not create perverse incentives for institutions to assume other risks that are not used as a basis for premiums. Given the limited present ability to meet these criteria, premium differentials across risk categories should probably be kept small, at least initially.

Strengthen Capital Requirements

Ratios of deposits to bank capital for the banking and thrift industries have increased steadily over the past 30 years. Under the present policy for pricing insurance, it may be advantageous for owners of insured intermediaries to drive these ratios to very high levels, unless other restrictions are in place. Strengthening capital requirements would be advantageous for two reasons. First, the additional capital would directly provide an extra margin of safety both for the insuring agencies and uninsured depositors. Second, by placing more of an intermediary's own capital at risk, incentives to control risk-taking would be strengthened.

It may be desirable to allow strengthened capital requirements to be satisfied either through the issuance of new equity or subordinated debt—bonds whose claim on bank assets is subordinate to the claims of depositors and the insuring agencies, but prior to the claims of equity holders. Bondholders would be another class of investors with incentives to monitor an intermediary's practices.

Proposals that rely solely on strengthened capital requirements without any other reforms have some serious drawbacks. For one, the question of the appropriate level of capital should not be addressed apart from the riskiness of the rest of an institution's portfolio—two institutions with identical ratios of deposits to capital can represent very different risks to the insuring agency. There are also problems with properly measuring net worth. Large discrepancies can exist between true and accounting values of assets and liabilities. The measure of true net worth that many prefer—the market's estimate—is generally not available since the majority of financial institutions are not publicly held. Further, the market value of banks that are publicly traded may reflect the guarantees that are implicit in deposit insurance.

Increase the Risk Exposure of Large Depositors

Many observers have argued that any reform of the deposit insurance system should include provisions that would increase the risk exposure of large depositors as a way of imposing greater market discipline. Insured depositors presently have little or no incentive to evaluate the soundness of an intermediary. If virtually all depositors are effectively insured, the discipline of the market that would come from private sector scrutiny of the intermediary's policies is lost. The existence of ceilings on the amount of insured deposits in any given account suggests that some large depositors are at risk, so that intermediaries competing for their business would be subject to private sector scrutiny. However, this discipline has not been important in recent years.

The reasons for the current lack of market discipline differ somewhat for savings and loans and commercial banks. Savings and loans have few uninsured deposits—fewer than 4 percent of total deposits at the end of 1982. In contrast many banks have sizable uninsured deposits. The FDIC has estimated that as of June 1983 approximately 27 percent of all domestic deposits in commercial banks were uninsured. For large banks with more than $10 billion in deposits the figure is approximately 40 percent, and for the largest money center banks the figure approaches 80 percent. However, particularly for medium- and large-sized banks, the FDIC's procedure for handling failures—which involves arranging a merger with a sound bank while covering the failed bank's losses—has meant that few uninsured depositors have suffered losses. Since the establishment of the FDIC, no depositor has ever incurred a loss as a result of a failure of a member bank with more than $1 billion in total deposits.

A recent FDIC report submitted to the Congress on the subject of deposit insurance reform stresses the importance of restoring the perception that large depositors are at risk, possibly by abandoning the policy of arranging mergers. However, as recently as October 1983, the FDIC provided *de facto* insurance for uninsured depositors at a large bank by arranging a merger. The FDIC appears to face a classic problem in its management of bank failures: it would like to represent itself as being willing to permit uninsured depositors to suffer losses so as to restore private incentives to monitor risk, but for any given failure the FDIC often finds it cheaper to assume the losses in the process of arranging a merger. Moreover, under present arrangements, doing otherwise might require a lengthy bankruptcy proceeding perhaps lasting years and tying up billions of dollars of assets and deposits. If the institution were large, this could be highly disruptive.

One factor complicating the task of increasing the risk exposure of large depositors is the emergence of the deposit brokerage industry. In recent years a network of brokers has emerged to parcel large deposits into insurable increments and place them in financial institutions nationwide. Deposit brokers perform the useful function of facilitating interregional flows of funds. However, they also have been known to place insured funds in banks without any credit analysis, or worse yet, place them in known problem banks in order to collect higher fees. In an attempt to check this type of activity, both the FDIC and FSLIC have recently announced that problem institutions would be subject to limitations on the amount of brokered deposits they could accept.

A common prescription for increasing market discipline is to lower the limits on insured accounts. However, the emergence of the deposit brokerage industry suggests that unless the limits are lowered very substantially, the impact may be slight. A more promising way to accomplish large reductions in the coverage levels, and at the same time protect small depositors, would be to return to the fractional coverage scheme that was a part of the original Federal deposit insurance legislation. The act President Roosevelt signed into law called for full coverage of the first $10,000 of a deposit, 75 percent coverage of the amounts between $10,000 and $50,000, and 50 percent coverage for amounts above $50,000. This plan never took effect, as a temporary plan adopted by the Congress was extended indefinitely. A partial coverage plan of this type is in effect in the United Kingdom, where 75 percent of deposits in failed banks are reimbursed up to a ceiling amount.

There is one significant advantage of a fractional coverage system. When a failure takes place, depositors maintaining funds above the ceiling amount for full coverage could receive immediate payment up to the amount of their coverage. Additional amounts could be paid later, depending on what is realized from the failed institution's portfolio. As a result, the disruptive effects on the payments system that could be associated with the liquidation of a large institution's portfolio would be minimized.

There is, however, an important tradeoff associated with implementing a fractional coverage system. In order for market discipline to be a credible deterrent to excessive risk-taking by financial intermediaries, uninsured depositors must be prepared to move funds out of troubled institutions. Exposing large depositors to greater risk, therefore, increases the likelihood of deposit flight from those institutions. Because deposits can be moved quickly and cheaply to a new institution, such a system might mean that an intermediary subject to moderate but well-reported problems would experience deposit out-

flows that could prevent its recovery. The recent expansion of access to the Federal Reserve discount window to both nonmember banks and thrift institutions should be important in preventing unwarranted deposit flights from causing the failure of marginal institutions.

Improve Disclosure

Any proposal that relies heavily on increased market discipline should be accompanied by improved disclosure and strengthened reporting requirements. Federal bank regulators have not required insured institutions to carry assets and liabilities on their balance sheets at market value, or until recently to report financial information that would permit an assessment of the interest rate risk and credit risk to which an institution is exposed. However, the Securities and Exchange Commission does now require bank holding companies to report some market value data and data that could lead to an assessment of interest rate and credit risk.

Privatize Deposit Insurance

The provision of deposit insurance is now a virtual Federal monopoly. Consequently, it is impossible to use market measures to assess the performance of the FDIC and FSLIC in setting premiums, either under the current system or under a new system with variable premiums. Further, if incorrect assessments were applied under a system of risk-related premiums, the insured institutions might have few other sources of insurance. In principle, a private market for deposit insurance would seem to avoid these problems; market forces could be relied upon to guarantee that intermediaries were evaluated fairly. In addition, private insurers would have an incentive to share many of the costs of monitoring their behavior. Privatizing deposit insurance might, therefore, be another means of bringing the discipline of the market to bear on financial institutions.

It may be possible to introduce some elements of a joint public-private deposit insurance system. There is already some private participation in the market for financial guarantees. For example, at least one major money market mutual fund has obtained private insurance for its shareholders, and private insurance of mortgages and credit union deposits is well established.

It is not likely, however, that responsibility for insuring deposits can be shifted to any great extent to the private sector. Some ultimate Federal guarantee may be necessary to maintain public confidence. In addition deposit insurance was established primarily to protect against the risk of a banking crisis—the prospect of many bank failures occurring simultaneously. It is precisely this kind of risk that the private insurance industry is least equipped to handle.

The benefits of a credible deposit insurance system should be achievable in an environment with fewer restrictions than the present one, provided certain basic reforms are implemented. A deposit insurance system tied to risk would be a significant reform. Strengthened capital requirements, the introduction of fractional coverage for relatively large accounts, and improved disclosure should also play roles. A deposit insurance system relying more heavily on incentives of this kind can be expected to involve significantly lower net costs than restrictions on entry, activities, and the pricing of financial services that serve either to limit competitive pressures in the marketplace, or to redirect competition into other areas.

REFORM OF THE REGULATORY STRUCTURE

Today the regulatory structure is characterized by considerable overlap and duplication of function among numerous Federal and State authorities. In December 1982 the Administration announced the creation of the Task Group on Regulation of Financial Services, chaired by the Vice President to study Federal regulation of financial institutions and to develop proposals for comprehensive reform. A principal objective of the Task Group has been to address the overlap and duplication in Federal banking regulation.

The regulatory structure for depository institutions developed in a piecemeal fashion over many decades. Until the Civil War, all banking activities, with only minor exceptions, were conducted by State-chartered institutions. Between 1863 and 1865 the Congress enacted legislation that was designed to force State banks to recharter under Federal law. State-chartered banks did not disappear, however, largely because State bank regulations were often less stringent than Federal regulations. Hence a dual banking system developed, in which banks could operate with either a Federal or State charter, under the jurisdiction of separate regulatory authorities. This aspect of the regulatory structure for banking, and more recently thrifts, has played an important role in shaping the industry. It has fostered innovation by permitting many possible paths of evolution instead of one. Two important examples of innovations first permitted by State regulators are branch banking and NOW accounts.

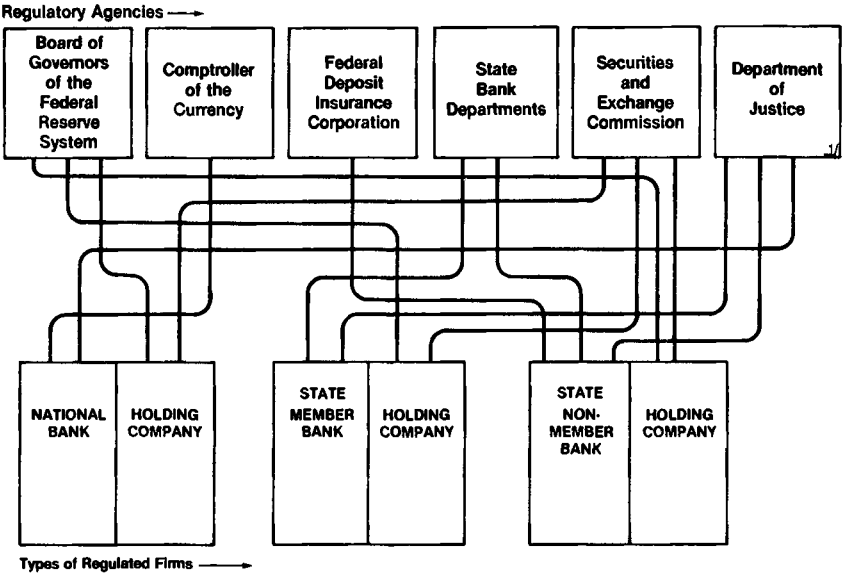
Successive layers of Federal regulation of commercial banks were applied in response to financial crises and the emergence of new institutions and forms of organization. A bank today can hold a national charter, in which case it is supervised by the Comptroller of the Currency, or a State charter. All nationally chartered banks are also members of the Federal Reserve System, but State-chartered banks

can be either members, in which case they are regulated by the Federal Reserve Board, or nonmembers, in which case they are regulated by the FDIC. However, holding companies of both national banks and State nonmember banks also fall under the jurisdiction of the Federal Reserve. Because of tax, regulatory, and financing advantages, the holding company form of organization has become dominant. As a result, the Federal Reserve has at least some jurisdiction over the majority of commercial banking entities, particularly the larger ones. Although Federal deposit insurance is not mandatory for State-chartered banks, virtually all commercial banks are members of the FDIC, and so come under its jurisdiction as well. Chart 5-3 illustrates the complexity of current arrangements.

Chart 5-3

Existing Regulation of Banks and Their Holding Companies

December 31, 1983



1/Antitrust enforcement only.

Source: Vice President's Task Group on Regulation of Financial Services.

Because several agencies typically share responsibility for regulating a particular bank, and because different banks are regulated by different agencies, depending on their charter and form of organization, gaps and overlaps of regulatory power among the many agencies have developed. In addition, these agencies have sometimes had conflicting objectives and motivations in dealing with regulatory

issues. For example, the Federal Reserve has traditionally exerted a conservative influence, while the chartering agencies at both the Federal and State levels have been more inclined to encourage growth and development.

An advantage of the regulatory structure for the savings and loan industry is that the problems of duplication of effort and gaps and overlaps of authority are much less pronounced, since the FHLBB performs the functions that three separate Federal agencies—the Federal Reserve, the Comptroller of the Currency, and the FDIC—now perform for commercial banks. Of course, if federally insured, a State-chartered savings and loan association is regulated by both FSLIC and its State-chartering agency.

In the 1930s when separate regulatory structures were established for commercial banks, thrifts, and securities dealers, those firms comprised distinct industries with little competition across industry lines. Because of differences in the products and services offered (for example, between brokerage houses and commercial banks), or between customer groups (for example, commercial borrowers using commercial banks and small savers and home buyers using savings and loan associations), regulatory decisions applying to those industries could be made independently. Consequently, there was, at first, little reason to consider reform of the regulatory structure.

In recent years the lending and investment powers of thrift institutions have been broadened as a result of both Federal and State legislation. As a result of these new powers, thrift institutions may now engage, with some limitations, in virtually all the activities that are lawful for commercial banks. This new state of affairs has highlighted differences in their regulation and supervision. For example, it is now legally possible for a thrift institution to become functionally equivalent to a commercial bank, while remaining eligible for regulatory programs designed to create incentives for traditional thrift activities.

In addition, banks and thrifts now face aggressive new competition from brokerage firms, money market mutual funds, and "nonbank" banks in their traditional markets. At the same time, technological change, notably computer-based accounting and communication, has opened up opportunities for substantial increases in the scope of business across a broadening range of products and customer groups. As a result, there has been renewed interest in reforms that would produce a level playing field on which the various providers of financial services could compete on equal terms, and that would permit emerging economies in the provision of financial services to be exploited to the fullest extent possible.

The long-standing opportunities banks have had for selecting a charter and form of organization that places them under different

primary regulators, and the growing similarities in the legal powers of banks and thrifts, have implications for the behavior of the regulatory agencies. The various regulatory agencies must offer sufficiently attractive terms to institutions operating under their charters to maintain their existing clientele bases and to attract new firms. There are different opinions as to whether this situation is desirable. One view is that the present scheme leads to "competition in laxity" and therefore insufficient restraints on unsound practices. Another view is that it tends to eliminate the most onerous regulatory strictures, and fosters innovation and efficiency.

Because of the enormous changes that have occurred in financial markets in recent years, the regulatory structure has become progressively out of date. As a result the case for regulatory reform is now very strong. The Administration's Task Group on Regulation of Financial Services is expected to issue its report in early 1984. The report will focus debate and attention on a specific set of legislative proposals to streamline Federal regulation and reduce the overlap between Federal and State regulators.

CONCLUSIONS

Of all the goals of financial regulation the goal of financial stability is paramount. In the 1930s, financial instability was widely attributed to the natural operation of competitive markets, and this view supported a very substantial extension of regulatory controls over financial markets. More recently, however, a renewed respect for the efficiency of competitive markets has developed, as well as increased recognition of the costs of regulation. Regulation tends to spread in unproductive directions and often causes industries to evolve less efficiently than they otherwise would. For these reasons, the promotion of efficiency by furthering competition is also an important regulatory goal. The purpose of regulation should not be to protect poorly managed individual firms from failure, but rather to prevent such failures from shaking the stability of the financial system as a whole. Regulations should be designed to achieve stability of the system, while individual firms are afforded the maximum possible freedom to compete and innovate.

CHAPTER 6

Review and Outlook

IN 1983 THE U.S. ECONOMY experienced a year of vigorous cyclical recovery. As the economy snapped back from recession, employment increased by 4.0 million persons and the unemployment rate fell by 2.5 percentage points. Real gross national product (GNP), the broadest measure of output, rose by 6.1 percent, while industrial production rose by 16.1 percent. These gains in employment and output were achieved in an environment in which the rate of inflation continued to decline—the increase in the consumer price index of 3.8 percent was the lowest in 11 years. Both productivity and real wages rose, continuing an advance that began in 1982. For both series the 2-year increase was the largest in 6 years. Major stock price indexes rose significantly through the first half of the year and then leveled off, while interest rates increased somewhat starting in the spring. The U.S. dollar appreciated in the foreign exchange market, continuing a trend that began in late 1980.

The performance of the economy involved much more than a simple reversal of the output declines experienced during the recession. The decline in inflation and resumption of productivity growth are expected to provide the base for a long continuing expansion in coming years. The Administration's outlook for 1984 and economic assumptions through 1989 are described in the final section of this chapter, following the review of the economy's performance in 1983.

REVIEW OF THE 1983 ECONOMY

Gains in output were widespread across most sectors of the economy. By the end of 1983 the expansion was 1 year old—the quarterly dating of the business cycle trough is the fourth quarter of 1982, while the monthly dating is November 1982. In discussing the 1983 recovery a comparison with other recoveries is useful. Table 6–1 provides summary information on the other recoveries since 1949. From Table 6–1 it can be seen that in 1983 real GNP grew slightly less and employment considerably more than over the comparable period of a typical recovery. Indeed, the employment gain was larger than experienced in any of the seven recoveries reported in Table 6–1 with the

exception of the recovery following the 1949 trough. Industrial production in 1983 rose somewhat more rapidly than over the first year of a typical recovery.

TABLE 6–1.—*Growth in output and employment over first year of business cycle recoveries*

[Percent change, except as noted]

Quarter and month of business cycle trough	First 4 quarters after trough	First 12 months after trough		
	Real GNP	Industrial production	Civilian employment	Civilian unemployment rate (percentage point change)
1982 IV (November)	6.1	15.7	3.6	−2.3
1949 IV (October)	13.3	27.7	4.4	−3.7
1954 II (May)	7.4	14.0	2.9	−1.6
1958 II (April)	8.4	20.9	3.4	−2.2
1961 I (February)	7.0	13.4	1.4	−1.4
1970 IV (November)	4.7	6.2	2.1	.1
1975 I (March)	6.7	15.2	3.3	−1.0
1980 III (July)	4.2	9.7	1.9	−.5
Average of seven recoveries [1]	7.4	15.3	2.8	−1.5
Average of five recoveries [2]	6.8	13.9	2.6	−1.2

[1] Excludes 1982.
[2] Excludes 1949, 1980, and 1982.

Note.—Business cycle troughs are as determined by the National Bureau of Economic Research.

Sources: Department of Commerce (Bureau of Economic Analysis), Department of Labor (Bureau of Labor Statistics), and Board of Governors of the Federal Reserve System.

In order to provide a reference standard for interpreting the growth of GNP and its components in 1983, a "typical" recovery may be defined by averaging the first year of business expansion following the earlier cyclical troughs listed in Table 6–1 excluding those in 1949 and 1980. The strength of the recovery from the 1949 trough was greatly distorted by the outbreak of the Korean war in mid-1950 and the accompanying expectation of a renewal of wartime production and price controls. The expansion from the 1980 trough lasted only 12 months—a recovery only half the length of any recovery in the last 50 years.

A perspective on the composition of the expansion in real GNP is provided in Table 6–2. The major categories of real GNP are reported in terms of percentage point contributions to the total change in GNP over the four quarters of 1983. For example, real personal consumption expenditures accounted for 3.6 percentage points of the total 6.1 percent growth in real GNP; by comparison, during the first four quarters of the typical postwar recovery, personal consumption accounted for 3.6 percentage points out of the total 6.8 percent increase in real GNP. The major conclusion to be drawn from Table 6–2 is that the magnitude and composition of the 1983 expansion was similar in most respects to the typical first four quarters of business expansion following a cyclical trough.

TABLE 6-2.—*Contribution of GNP components to total GNP growth over first year of business cycle recoveries*

[Percentage point change]

Item	1982 IV to 1983 IV [1]	Typical postwar recovery [2]
Real GNP	6.1	6.8
Personal consumption expenditures	3.6	3.6
Durable goods	1.4	1.3
Nonresidential fixed investment	1.2	.5
Producers' durable equipment	1.3	.5
Structures	−.1	.0
Residential investment	1.0	1.0
Change in business inventories	2.0	1.8
Net exports of goods and services	−1.4	−.4
Exports	.3	.0
Imports (minus denotes increase)	−1.7	−.4
Government purchases of goods and services	−.4	.3
Federal	−.5	−.2
Federal excluding CCC [3]	.3	−.3
State and local	.1	.5
Final sales [4]	4.0	5.0

[1] Preliminary.
[2] Recoveries following business cycle troughs in 1954 II, 1958 II, 1961 I, 1970 IV, and 1975 I.
[3] Memo item not usually reported in national income and product account tables.
[4] Real GNP less change in business inventories.

Note.—Business cycle troughs are as determined by the National Bureau of Economic Research.

Source: Department of Commerce (Bureau of Economic Analysis).

Fluctuations in output over the business cycle are ordinarily larger for durable consumption and investment goods than for other sectors. In 1983 despite apparently high real (inflation adjusted) interest rates, durable consumption, business fixed investment, residential investment, and inventories all experienced growth matching or exceeding that of the typical postwar recovery, based on the accounting in Table 6-2. Business investment in equipment was especially strong.

This strong performance can be attributed to several factors. Both disposable personal income and after-tax business profits recovered significantly from their 1982 levels. Relative prices for consumer durable goods and fixed investment goods fell. Tax policies, especially accelerated depreciation allowances, increased the after-tax return on business investment. The rising stock market probably also contributed both to the demand for durable goods and business fixed investment. The decline in mortgage rates that began in mid-1982 was important for the housing recovery.

Rising profits and incomes are likely to have a large effect on investment expenditures in the early stages of the recovery when the swing in output from contraction to expansion is relatively large and disposable personal income and business cash flow increase significantly. Later in the expansion, output and income growth tend to

slow relative to business investment as firms approach high utilization rates. At this stage, interest rates become more important in determining the level of investment and subsequent growth in total output.

In addition, business fixed investment may have been subject to "accelerator" effects. As final demand rises, so too does the capital stock needed to produce the higher volume of goods and services efficiently. With a resumption of economic expansion, even a relatively small increase in the desired capital stock may result in a substantial increase in the rate of investment spending. Inventory investment also tends to increase with rising final sales in order to keep the ratio of inventories to sales within the desired range. An expansion of inventories requires additional production, further increasing the use of existing capacity. These types of effects are likely to play a significant role through 1984.

Expenditures on consumer durables and housing may have been affected by a similar phenomenon. During recessions, with real income growing slowly or falling, desired stocks of housing and consumer durables rise slowly if at all. Most purchases reflect replacement demand. In the early recovery phase, with rising employment and income, purchases of consumer durables may expand rapidly as efforts to increase stocks of durables and housing create additional demand above normal replacement demand.

In 1983 total real domestic demand rose by 7.4 percent, and export demand added another 0.3 percent. However, of this 7.8 percent increase of aggregate demand, 1.7 percentage points were satisfied by imports of goods and services. Thus, U.S. real output and income rose by 6.1 percent; in an accounting sense, net exports reduced real GNP growth by 1.4 percentage points in 1983 compared to a reduction of 0.4 percentage point for a typical recovery. As can be seen from Table 6–2, the decline in net exports in 1983 was more a reflection of growing imports than of declining exports. However, exports had declined significantly in 1982; thus, the small growth in exports in 1983 was from a depressed base.

Government purchases of goods and services declined over the four quarters of 1983 by an amount sufficient to lower GNP by 0.4 percentage point in the accounting reported in Table 6–2. State and local government purchases grew more slowly than is typical of the first four quarters of recovery. Total real Federal purchases actually declined somewhat as a rise in Federal defense purchases was more than offset by a fall in nondefense purchases. It is important to note, however, that a comparison of real Federal purchases in the fourth quarter of 1983 with those in the fourth quarter of 1982 is distorted by a large shift from net purchases to net sales (which include pay-

ment-in-kind) of agricultural commodities by the Commodity Credit Corporation (CCC). As shown in Table 6-2, Federal expenditures excluding CCC contributed 0.3 percentage point of GNP growth compared to a negative contribution of 0.3 percentage point for the typical recovery.

In summary, the major differences in the composition of GNP growth between the 1983 and the typical recovery are these: a) nonresidential fixed investment rose more than usual in the 1983 recovery; b) net exports, which fall somewhat in the typical recovery, fell substantially in 1983; and c) Federal purchases, which are usually about unchanged, fell in 1983 due to an atypical swing in CCC purchases.

PERSONAL INCOME AND CONSUMPTION

Over the course of the year real personal income rose by 4.0 percent, while real disposable income grew somewhat more rapidly, by 5.1 percent, reflecting the third stage of the Administration's tax reduction program. These increases in both personal and disposable income continued advances that started in 1982.

As shown in Table 6-3, the 4.0 percent rise in real personal income reflected a 5.1 percent rise in real payroll disbursements and related fringe income. Higher employment and hours worked and an increase in real hourly earnings all contributed to this increase. Other sources of income including interest and dividend income, rental income, and proprietors' income recorded a 4.7 percent increase. Real net transfer payments declined 3.7 percent as unemployment payments dropped, and as the surge in employment produced a large increase in contributions to social insurance. Federal personal income tax liabilities fell by 6.2 percent while other taxes—largely State and local—rose by 11.1 percent.

Increases in consumption expenditures were widespread across various product categories. As is typical of periods of cyclical recovery, the expansion of real consumption expenditures was led by expenditures on durable goods. Real consumer durables expenditures, which in 1982 were below their 1978 level, rose substantially in 1983. Expenditures on automobiles, representing about 43 percent of total consumer durables expenditures, rose by 19.3 percent. Furniture and household equipment, linked to the housing recovery, grew by 11.5 percent and other durables by 8.4 percent.

In real terms, the services component of personal consumption expenditures has grown every quarter since the first quarter of 1954, reflecting stable growth of services generally, and especially of imputed services of owner-occupied dwellings which represent one-quarter of total services outlays. The nondurable goods sector—of which

TABLE 6-3.—*Real household income, consumption, saving, and residential investment, 1979–83*

[Percent change, fourth quarter to fourth quarter and 5-year average]

Item	1979	1980	1981	1982	1983[1]	5-year average[1,2]
Income by type:						
Labor income[3]	1.2	−0.2	1.1	−0.9	5.1	1.2
Other income[4]	3.5	−.3	11.9	−3.6	4.7	3.2
Net transfer payments[5]	4.4	13.5	−.1	11.8	−3.7	5.2
Personal income	2.0	1.0	3.4	−.3	4.0	2.0
Less: Federal tax payments	5.6	1.6	3.0	−4.9	−6.2	1.2
Other tax and nontax payments[6]	1.8	.7	3.8	4.5	11.1	3.9
Disposable personal income	1.5	.9	3.4	.1	5.1	2.1
Personal consumption expenditures	2.1	.1	1.7	2.5	5.4	2.3
Personal saving	−11.4	19.1	29.1	−27.6	−1.2	−2.4
Personal saving rate (percent)[7]	5.9	6.0	6.6	5.8	4.8	5.8
Housing starts[8]	−23.1	−4.0	−42.2	44.9	34.2	−3.4
Single family	−29.2	−5.0	−44.9	50.1	26.6	−5.7
Multifamily	−7.9	−2.0	−37.1	36.6	47.8	1.6
Mobile (manufactured) home shipments[8]	−9.9	−4.3	−12.3	11.7	[9]25.5	[9]1.3
Residential investment	−8.3	−13.6	−19.6	3.0	38.2	−3.3

[1] Preliminary.
[2] Based on annual data.
[3] Wage and salary disbursements and other labor income.
[4] Proprietors' income, rental income, personal dividend income, and personal interest income.
[5] Transfer payments less personal contributions for social insurance.
[6] State and local tax and nontax payments plus Federal nontax payments.
[7] Annual average.
[8] Units.
[9] Based on data through November 1983.

Note.—Income items, consumption, and saving deflated by the personal consumption deflator; residential investment deflated by the residential deflator.

Sources: Department of Commerce (Bureau of Economic Analysis and Bureau of the Census) and Council of Economic Advisers.

food represents about one-half and clothing about one-quarter—fluctuates over the cycle but is dominated by trend. Real nondurable consumption rose 4.7 percent over the year.

By the second quarter of 1983, the vigorous recovery had already lifted durable consumption expenditures above the prior peak quarter in 1978. The increase began in the fourth quarter of 1982 when special promotional efforts by the automobile industry and declining fuel prices increased auto sales and substantially reduced inventories.

The growth of consumer spending in 1983 exceeded that of disposable income. Hence, the personal saving rate fell over the course of the year. The average rate for the year, 4.8 percent, was below the 5.8 percent rate in 1982 and substantially below the 6.9 percent average for the 1950–80 period. In comparing 1983 to prior recoveries, it is better to examine the average saving rate for the year because the personal saving rate can be rather volatile from quarter to quarter. There has been no consistent pattern for the saving rate over the first year of business cycle recoveries. In this stage of the cycle, sub-

stantial declines on the order of the 1983 decline are certainly not unknown; for example, in the first year of recovery following the 1954 trough the saving rate averaged 6.0 percent, down from an average of 7.2 percent over the preceding four quarters. The main issue concerning the 1983 personal saving rate is that it declined from a 1982 level that was already considerably below the average for the last three decades.

The decline in the saving rate in 1983 may reflect in part the effects of a vigorous stock market advance in encouraging rising consumer spending. After rising 27 percent from its July low to December 1982, the Standard & Poor's composite index rose by another 19 percent over the 6 months ending June 1983. The index ended the year at about its June level, having increased the value of outstanding stock held by households by about $500 billion from July 1982. This stock market advance was somewhat larger than the average over comparable phases of previous business cycles.

RESIDENTIAL INVESTMENT

In 1983 monthly housing starts fluctuated between an annual rate of 1.5 million and 1.9 million units, averaging 1.7 million units, the highest level since the 1.75 million units reached in 1979. The increase in starts from 1982 was the largest year-to-year advance in over 35 years. In addition, mobile homes—not included in the starts figure—averaged about 300,000 units, bringing total new dwelling units to about 2 million. About two-thirds of the starts were single-family units and one-third were in structures with two units or more, a split that was about typical of the average in the 1970s. Expenditures on residential housing construction increased 38.2 percent in real terms from the fourth quarter of 1982.

The recovery in new housing construction was accompanied by a rise in sales of existing homes, which rose 16.4 percent in the first 11 months of 1983. Total gross mortgage originations for one- to four-family nonfarm housing in the first 9 months of 1983 was over $148 billion compared to $65 billion in 1982. The proportion of mortgage loans devoted to refinancing was the highest ever recorded, with a major portion devoted to refunding short-term financing, which was widely used in 1981–82 when long-term mortgage money was scarce and rates high.

Over the first three quarters of 1983, thrift institutions provided about one-half of the net increase in mortgage borrowings, including mortgages and mortgage-backed pool and agency securities. This marked a return to the market share that prevailed in the 1970s. In 1982 thrift institutions contributed less than 10 percent of the increase in net mortgage borrowings, as mortgages were swapped for

agency securities in an attempt to increase liquidity. The rising share for the thrifts reflects a variety of factors including a lower average level of mortgage rates and the introduction of new, more competitive savings instruments. There was a large flow of savings into the thrifts; their total deposits were at a rate of $143 billion over the first three quarters of 1983 compared to $55 billion for the same period in 1982.

Of even more significance, perhaps, has been the growth of mortgage-backed certificates. Unfortunately much of this growth reflects governmental activity that has probably stunted the growth of privately issued certificates. Federally sponsored mortgage-backed pool purchases of home mortgages that are used to back pass-through certificates exceeded $67 billion at an annual rate over the first 9 months of 1983. Combined with a total of $12 billion of home mortgages acquired by Federal, State, and local government credit agencies, government participation—chiefly as a mortgage market intermediary—exceeded two-thirds of the $116 billion net dollar volume in the home mortgage market.

The increase in housing construction and mortgage lending was spurred by increases in disposable income and employment and by the decline in mortgage interest rates that occurred over the second half of 1982. Compared to mortgage rates in the middle of 1982 the average rate in 1983 reduced the monthly payment on a 20-year term $60,000 mortgage by about $120.

BUSINESS FIXED INVESTMENT

Real nonresidential fixed investment grew by 11.5 percent over the four quarters of 1983. Strength was concentrated in business equipment while nonresidential structures investment declined 2.7 percent.

Real expenditures on producers' durable equipment rose 18.3 percent from the fourth quarter of 1982 to the fourth quarter of 1983. This rapid growth reflected the relatively short lead times on many equipment purchases, a rising capital utilization rate as the recovery proceeded, and the investment incentives in the 1981 and 1982 tax legislation. The growth was particularly strong in the office, computing, and accounting machinery category, and in cars and trucks. Real outlays for office equipment have almost doubled since 1979, reflecting the high productivity of computers in many lines of activity. Growth in business purchases of motor vehicles accounted for 29 percent of the total rise in equipment expenditures.

The decline in real expenditures on structures reflects the depressing effects of high interest rates, long lead times in large construction projects, and excess capacity existing at the beginning of 1983. Office

building had been especially strong before 1983; office construction peaked in late 1982 at a level three times greater than in 1977.

A sharp drop in the relative price of business fixed investment was an important element in the rise in investment. The fixed-weight price index for nonresidential fixed investment rose by 1.3 percent in 1983. By comparison, the fixed-weight index for final sales rose by 4.2 percent in 1983.

INVENTORY INVESTMENT

Inventory fluctuations are important in the business cycle process. Inventories have a buffer stock role, permitting a more constant rate of production in the face of transitory demand fluctuations. Under normal circumstances demand fluctuations for individual firms' products largely offset one another; growth in aggregate demand and in aggregate inventories is relatively smooth. Over a business cycle, however, demand fluctuations are larger and more pervasive. Then, inventories tend to be destabilizing as aggregate inventory adjustments move in the same direction as final demand. The impact on total output of a change in aggregate demand is then amplified by an inventory cycle. In 1983 inventory accumulation did not begin until the third quarter, in contrast to the usual recovery pattern in which accumulation begins somewhat sooner. In each of the first two quarters of 1983 the decline in inventories was smaller than in the prior quarter. Consequently, the swing in inventory investment from an unusually large liquidation of $22.7 billion (1972 dollars) in the last quarter of 1982 to an accumulation of $7.5 billion in the last quarter of 1983 added significantly to the growth in production over the year.

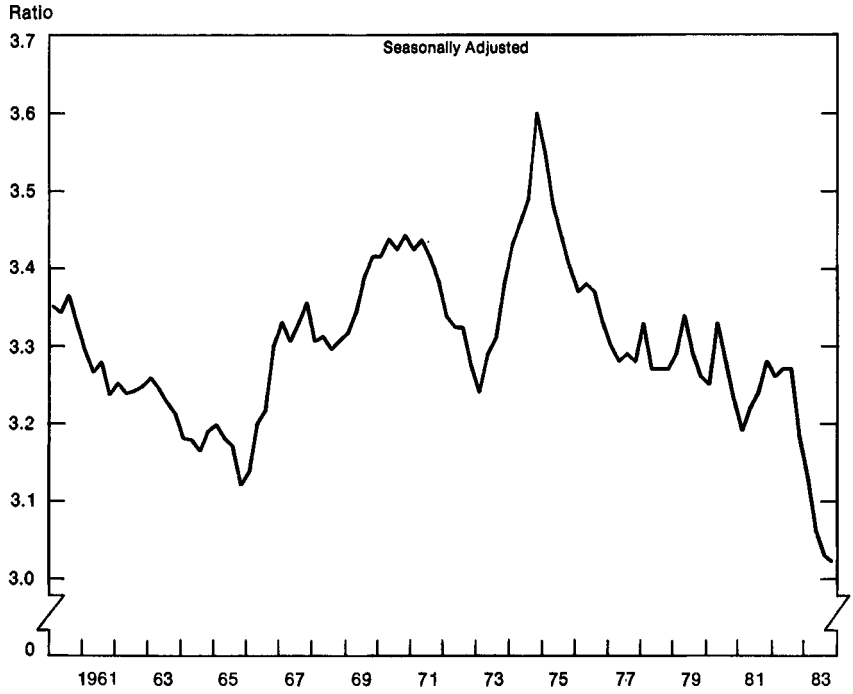
With final sales rising and inventories declining in the first half of the year and rising only modestly in the second half, the real business inventories/final sales ratio, shown in Chart 6–1, fell substantially over the course of 1983. By the fourth quarter of the year that ratio, at 3.02, was below the average of 3.33 in the fourth quarter of previous recoveries. The lean inventory situation at the close of the year reflects the effects of high interest rates and conservative inventory management policies. It could also be a consequence of underestimating the growth of final demand. With inventories lean at the end of 1983, predicted future gains in final demand will likely be met by increases in production and employment rather than by reductions in inventories.

THE FARM ECONOMY

Reflecting the combined effects of a severe drought and the payment-in-kind (PIK) program, agricultural output fell in 1983. From

Chart 6-1

Real Business Inventories/Final Sales Ratio



Source: Department of Commerce.

the fourth quarter of 1982 to the fourth quarter of 1983 real farm output fell 16.5 percent to $33.9 billion. Reflecting the decline in output, real farm inventories, excluding those under government loans, fell $2.9 billion. Real exports of agricultural products were roughly unchanged, falling only $0.4 billion. Nominal exports, however, rose 13.6 percent, to $37.6 billion, in the fourth quarter of 1983 as agricultural export prices rose 16.3 percent over the year.

The cost of Federal programs to support farm incomes probably exceeded total net farm income in 1983. Farm production expenses fell in 1983, for only the third time since 1940. This was primarily due to the reductions in acreage under cultivation that farmers made in reponse to the PIK program. The decline had significant adverse effects on producers of farm inputs including fertilizers, other chemicals, and seeds. The farm situation is discussed in detail in Chapter 4 of this *Report.*

Exports of goods and services in constant (1972) dollars rose slowly in 1983, but imports of goods and services grew at a much faster rate (Table 6–2). The result was a decline of net exports in constant dollars, from a surplus of $23.0 billion in the fourth quarter of 1982 to a surplus of only $2.5 billion in the fourth quarter of 1983.

In the national income and product accounts net exports measured in constant (1972) dollars registered a surplus while net exports in current dollars registered a deficit. The difference is due to a higher price deflator for imports than for exports. Further, the current account deficit in the balance of payments accounts, which is widely discussed, is considerably larger than the net exports deficit in the national income accounts. Most of that difference is accounted for by the fact that the balance of payments accounts include, and the national income accounts exclude, transfer payments and government interest payments to foreigners. However, the interpretation of major trends in the foreign sector is little affected by alternative accounting systems. By either measure, the deficit has been rising in current dollars, and the surplus has been declining in constant dollars.

The merchandise trade balance, which has been in deficit since 1976, further deteriorated in 1983. However, the United States has a substantial surplus from investment income and a smaller surplus in the "other services" component of net exports.

One cause of the decline in net exports in 1983 was the strong dollar, which made imported goods and services relatively less expensive to American buyers and exported goods and services relatively more expensive to foreign buyers. U.S. exports also were limited by the problems of financially troubled debtor nations, particularly those in Latin America. Another cause was the earlier recovery in the United States relative to that abroad. In 1983 the rate of increase of real GNP in the United States was three times that expected for the other 23 industrialized countries that are members of the Organization for Economic Cooperation and Development (OECD). As output and income in the United States grew rapidly over the course of the year, imports of goods and services also grew. However, with the expansions in the economies of major trading partners lagging behind that in the United States, growth in demand for U.S. exports of goods and services was restrained.

These events demonstrated an important result of the growing integration of the world economy. In 1983 countries outside the United States had a substantial influence on U.S. output, and the vigorous recovery in the United States was a source of stimulus to the

world economy. These matters are discussed in more detail in Chapter 2 of this *Report.*

GOVERNMENT PURCHASES OF GOODS AND SERVICES

Growth in government purchases of goods and services was not a major element propelling the expansion of output in the economy in 1983.

Over the year, Federal purchases of goods and services in 1972 dollars fell by $7.5 billion. The decline was a consequence of a special factor not likely to recur in 1984, namely a swing in CCC purchases of $12.6 billion. CCC purchases in the fourth quarter of 1982 were unusually large, while the PIK program and the drought led to net sales of commodities in the fourth quarter of 1983. Excluding the CCC component, real Federal purchases rose by 4.4 percent over the four quarters of the year. In 1972 dollars national defense purchases rose from $81.4 to $85.6 billion, while the nondefense purchases other than CCC rose from $33.3 to $34.1 billion.

The growth in State and local government purchases of goods and services was small in real terms. Over the four quarters of the year expenditures rose by only 0.6 percent. The small growth in purchases continues a pattern that has been apparent for several years. Indeed, in real terms, purchases for the entire year of 1983 are slightly below their level in 1979.

The fixed-weight price index for Federal purchases increased 2 percent over 1983, while the State and local price index rose 5.4 percent.

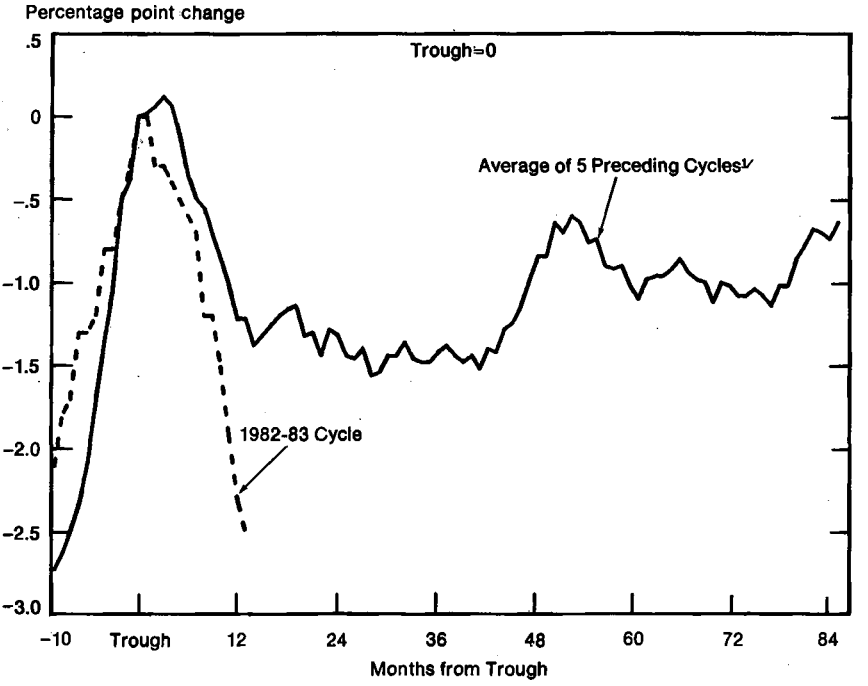
EMPLOYMENT, UNEMPLOYMENT, AND PRODUCTIVITY

Employment, as measured by the household survey, rose by 4.0 million persons over the 12 months of 1983. As shown in Chart 6–2, the civilian unemployment rate, after reaching a peak in November and December of 1982, dropped by 2.5 percentage points over the next 12 months, the largest 12-month decline in 32 years.

Changes in the unemployment rate are the result of conditions determining labor force growth—growth in the working-age population, and changes in the fraction of that population participating in the labor force—and changes in employment. Labor force participation rates and employment details are reported in Table 6–4. The increase in employment was by far the largest determinant of the decline in the unemployment rate. Civilian employment, as measured by the household survey, grew by 3.6 percent over the 12 months following the cycle trough in November 1982, an above-average increase compared to previous postwar recoveries.

Chart 6-2

Civilian Unemployment Rate



1/Excludes 1949 and 1980 cycles.

Sources: Department of Labor and Council of Economic Advisers.

Lower growth in working-age population, taken alone, reduced the unemployment rate by 0.4 percentage point compared to what it would have been with average population growth. The number of 16 to 19 year olds, the population group that provides many of the new additions to the labor force, actually declined over the year. The labor force participation rate was essentially unchanged over the year. Thus the slower-than-average labor force growth in this recovery is a demographic phenomenon; it is not an unusual economic response of participation rates to labor market conditions.

Above-average growth in employment raised the employment to population ratio—the ratio of civilian employment to working-age population—by 1.7 percentage points. At the end of 1983, 58.8 percent of the population was employed, compared to postwar peaks of 60.1 percent in February and December 1979.

All demographic groups have shared in the recovery. Employment gains were strong among blacks, particularly among black men over 20 years of age, who experienced an 8.5 percent employment gain

TABLE 6–4.—*Labor market developments, 1979–83*

[Fourth quarter of indicated year]

Component	1979	1980	1981	1982	1983
	Percent change from year earlier [1]				
Change in civilian employment	2.3	−0.2	0.6	−1.0	3.5
Males 20 years and over	1.5	−.5	.2	−1.4	3.6
Females 20 years and over	4.1	1.6	2.8	.8	4.0
Both sexes 16–19 years	−.8	−6.2	−8.6	−7.3	−.6
White	2.2	−.1	.7	−1.2	3.4
Black and other	3.3	−.6	−.1	.4	4.2
	Percent [1]				
Civilian unemployment rate [2]	5.9	7.4	8.2	10.6	8.5
Males 20 years and over	4.4	6.2	7.1	9.9	7.8
Females 20 years and over	5.7	6.7	7.2	9.0	7.2
Both sexes 16–19 years	16.2	18.2	21.0	24.1	20.6
White	5.2	6.5	7.2	9.5	7.4
Black and other	11.2	13.8	15.4	18.7	16.4
Participation rate [3]	63.8	63.7	63.8	64.0	64.0
Males 20 years and over	79.6	79.1	78.7	78.7	78.4
Females 20 years and over	51.0	51.5	52.3	52.9	53.2
Both sexes 16–19 years	57.8	56.2	54.6	54.1	53.2
White	64.0	64.0	64.1	64.4	64.5
Black and other	62.3	61.8	61.5	62.1	61.5

[1] Seasonally adjusted.
[2] Unemployed as percent of civilian labor force.
[3] Civilian labor force as percent of civilian noninstitutional population.

Note.—Data relate to persons 16 years and over.

Source: Department of Labor, Bureau of Labor Statistics.

over the year. However, the employment picture for black teenagers (aged 16 to 19) remains bleak. Compared to white teenagers, black teenagers have lower participation rates. In addition, the unemployment rate for black teenagers was twice as high as that for white teenagers. Consequently, fewer than 20 percent of black teenagers are employed, compared with almost 50 percent of white teenagers.

Job opportunities for Hispanics improved markedly during 1983. Employment among Hispanics grew by 10.4 percent, more than twice the increase in the working-age Hispanic population. The Hispanic unemployment rate fell from 15.5 percent in December 1982 to 11.6 percent in December 1983.

Following a period of little growth from 1977 to early 1982, labor productivity began to rise in the third quarter of 1982. Productivity trends in the economy are most reliably measured for the nonfarm business sector, which accounts for about 83 percent of total GNP. Nonfarm business output and related measures are shown on Table 6–5.

Productivity began to rise before the end of the last recession as employment continued to drop after output leveled off. Productivity in the nonfarm business sector rose at a 1.8 percent annual rate in

TABLE 6–5.—*Output, productivity, costs, and prices in the nonfarm business sector, 1979–83*

[Percent change, fourth quarter to fourth quarter and 5-year average]

Item	1979	1980	1981	1982	1983 [1]	5-year average [1 2]
Output	0.2	−0.8	1.0	−2.6	8.3	1.0
Output per hour	−2.1	.2	1.2	.8	3.5	.6
Compensation per hour	9.2	10.8	9.0	7.2	4.9	8.5
Unit labor cost	11.6	10.5	7.7	6.3	1.3	7.9
Implicit price deflator	8.5	10.6	9.4	3.7	3.6	7.5

[1] Preliminary.
[2] Based on annual data.
Note.—Data relate to all persons.
Source: Department of Labor, Bureau of Labor Statistics.

the last two quarters of 1982 and at a 3.5 percent rate over 1983. In the recovery unemployment fell without a lag. Consequently, the unemployment rate fell more rapidly than usual for the increase in output.

PRICES, WAGES, COMPENSATION, AND PROFITS

Over the 12 months from December 1982 to December 1983 consumer prices rose by 3.8 percent and producer prices by 0.6 percent. For consumer prices the increase was the smallest since 1972; for producer prices the 12-month increase was the lowest for any calendar year since 1964. Table 6–6 provides detail for major components of the price indexes, and also a comparison of the past year's inflation with the average rate over the last 5 years.

TABLE 6–6.—*Price changes, 1979–83*

[Percent change, fourth quarter to fourth quarter and 5-year average]

Item	1979	1980	1981	1982	1983 [1]	5-year average [1 2]
GNP price measures:						
Fixed-weighted index	9.3	10.1	8.8	5.1	4.3	7.9
Implicit deflator	8.2	10.2	8.7	4.4	4.0	7.5
Consumer prices: [3]						
All items	12.8	12.5	9.5	4.5	3.3	8.8
All items less food and energy	10.7	12.2	10.2	5.2	4.3	8.7
Producer prices—finished goods:						
Total	12.8	12.4	7.3	3.6	.9	7.8
Consumer goods	14.0	12.6	6.8	3.5	.4	7.9
Capital equipment	8.9	11.7	9.1	4.1	2.3	7.6

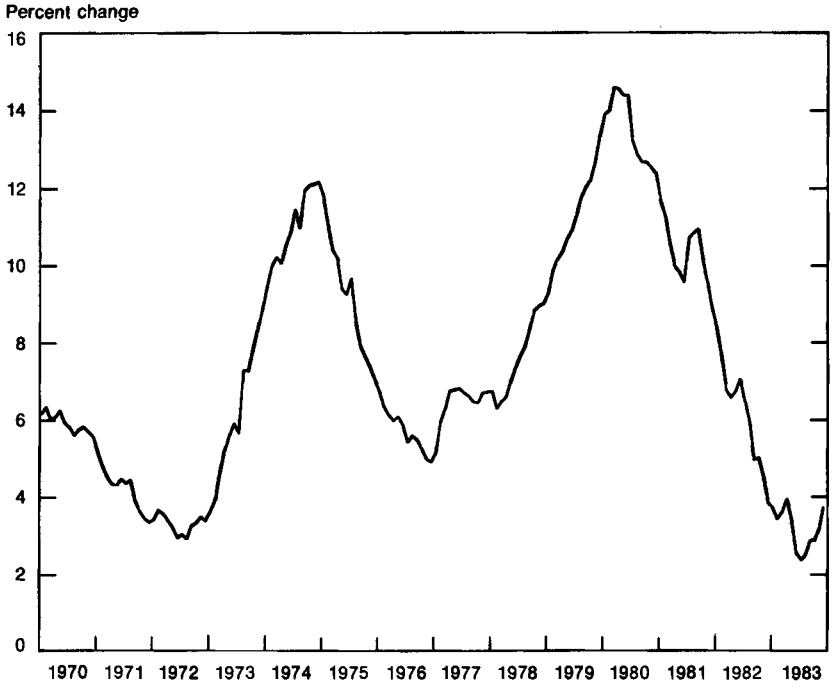
[1] Preliminary.
[2] Based on annual data.
[3] All urban consumers.
Source: Department of Commerce (Bureau of Economic Analysis) and Department of Labor (Bureau of Labor Statistics).

Inflation as measured by the consumer price index for all urban consumers (CPI–U) was somewhat higher over the second half than over the first half of 1983 (Chart 6–3). Over the 6 months ending June the CPI–U rose at a 2.9 percent annual rate; over the 6 months ending December, the annual rate was 4.7 percent. To some extent the slight increase in inflation over the course of the year reflected the timing of changes in energy prices which fell in the first quarter due to reductions in crude petroleum prices.

Chart 6-3

Change in the Consumer Price Index

12-Month Change in the CPI-U



Source: Department of Labor.

Reflecting the drought and unexpectedly large acreage reductions for the PIK program, food prices rose more rapidly in the second half of the year than they had in the first. The tendency toward slightly higher inflation as the year progressed is indicated by the fact that the CPI–U, excluding food, energy, and shelter, rose at a 4.1 percent rate over the first 6 months and at a 5.8 percent rate over the 6 months ending in December.

The tendency toward a slight increase in inflation over the year was also registered by the producer price index. Over the 6 months ending June, the index for total finished goods fell at an annual rate of 0.9 percent, but over the second half of the year this index rose at a 2.0 percent annual rate. Even so, inflation by this measure was lower than that in the recession phase of the cycle. The GNP implicit price deflator, the broadest measure of inflation, rose by 4.0 percent over the four quarters of the year.

The rate of increase of money wages declined in 1983. An important contributor to this decline was the slack in labor markets. However, the reduction in the rate of inflation was also important as many wage increases are tied, formally or informally, to the rate of price inflation. Collective bargaining agreements with escalator clauses ordinarily tie wages to the consumer price index for urban wage earners and clerical workers (CPI–W), which differs from the CPI–U primarily with respect to the method used to measure housing costs. Over the 12 months ending December, the CPI–W rose 3.2 percent, slightly less than the CPI–U increase of 3.8 percent.

Based on the first three quarters of 1983, it appears that for the second consecutive year both union and nonunion wage increases were less than the previous year, as contracts and wage patterns established in the highly inflationary 1980–81 environment represented a diminishing portion of wage agreements. Major collective bargaining agreements negotiated in the first three quarters of 1983 have resulted in wage adjustments that are the lowest for the entire 15-year period over which these data have been collected, and less than half the rate of increase when the parties last negotiated.

Because price increases in 1983 were lower than wage increases, real hourly wages rose, as they had in 1982. As shown in Table 6–7, the adjusted hourly earnings index for the private nonagricultural sector (production or nonsupervisory workers) rose by 3.9 percent over the four quarters of 1983, compared to 6.0 percent for the previous four quarters. In constant (1977) dollars the increase in the hourly earnings index was 0.9 percent in 1983 compared to 1.5 percent in 1982. These gains in real hourly earnings may be compared to declines averaging 2.7 percent per year from 1978 to 1981.

In addition to the higher real hourly earnings, an increase in average weekly hours worked raised average weekly earnings. Average weekly hours in the nonagricultural sector rose from 34.8 in December 1982 to 35.2 in December 1983. The net result of higher hours and higher real hourly earnings was an increase of 2.4 percent in average real weekly earnings over the 12 months ending in December.

TABLE 6–7.—*Changes in wages and compensation, 1979–83*

[Percent change, fourth quarter to fourth quarter and 5-year average]

Measure	1979	1980	1981	1982	1983 [1]	5-year average [1,2]
Adjusted hourly earnings index [3]	8.0	9.6	8.3	6.0	3.9	7.5
Real adjusted hourly earnings index	−4.3	−2.7	−.9	1.5	.9	−1.2
Employment cost index [4]	8.7	9.0	8.8	6.3	[5] 5.0	7.6
Union workers	9.0	10.9	9.6	6.5	[5] 5.2	8.3
Nonunion workers	8.5	8.1	8.5	6.1	[5] 5.0	7.2
Nonfarm business sector: [6]						
Compensation per hour	9.2	10.8	9.0	7.2	4.9	8.5
Real compensation per hour	−3.2	−1.6	−.5	2.6	1.5	−.3

[1] Preliminary.
[2] Based on annual data.
[3] Private nonfarm employees.
[4] Wages and salaries, private nonfarm industry workers.
[5] Third quarter 1982 to third quarter 1983.
[6] All persons.

Sources: Department of Commerce (Bureau of Economic Analysis), Department of Labor (Bureau of Labor Statistics), and Council of Economic Advisers.

Overall, 1983 was an excellent year for real incomes. With a higher real hourly wage, higher average hours worked by those employed, rising employment, and the third stage of the Administration's tax reduction program, real per capita disposable personal income rose 4.1 percent over the year. This increase was the highest since 1977.

The combination of restrained increases in money wages and continued productivity growth served to hold the increase in unit labor costs to only 1.3 percent. This increase was the lowest since 1965.

Corporate profits before tax totaled about $205 billion in 1983. Corporate profits after tax were about $130 billion, a level well above 1982 but still below 1981.

FINANCIAL MARKETS

Most market interest rates rose somewhat over the 12 months of 1983. In December 1982 the 3-month Treasury bill rate averaged 7.9 percent; in December 1983 it averaged 9.0 percent. Over this same period 30-year Treasury bonds rose from 10.5 percent to 11.9 percent, and Aaa corporate bonds rose from 11.8 percent to 12.6 percent. The effective new home mortgage closing rate fell over the course of the year, from 13.7 percent in December 1982 to 12.5 percent in December 1983.

The Standard & Poor's composite stock price index rose sharply over the year, with all of the gains coming in the first half. In December 1983 the average was 17.9 percent above its level 12 months earlier. This rise was on top of the 27 percent increase in the second half of 1982.

As shown in Table 6–8, the credit markets absorbed a very large flow of financing in 1983. Reflecting record U.S. Government deficits, Treasury debt in the hands of the public rose by $187 billion over the year. As noted above, the markets also financed a very large flow of mortgages.

TABLE 6–8.—*Funds raised in credit markets by the nonfinancial sector of the economy, 1979–83*

[Billions of dollars, except as noted]

Sector	1979	1980	1981	1982	1983[1]
Total funds raised	406.2	370.4	404.4	411.0	509.1
Households	176.4	117.5	120.6	86.3	149.4
Business	151.7	126.1	159.6	111.5	95.9
Federal Government	37.4	79.2	87.4	161.3	205.9
State and local government	20.5	20.3	9.7	36.3	42.7
Foreign	20.2	27.2	27.2	15.7	15.0
Funds raised as percent of GNP	16.8	14.1	13.7	13.4	15.6

[1] Average of first three quarters at seasonally adjusted annual rate.

Note.—Detail may not add to total due to rounding.

Sources: Department of Commerce (Bureau of Economic Analysis) and Board of Governors of the Federal Reserve System.

The nonfinancial corporate sector did not place significant demands on the credit markets in 1983. As cash flow rose markedly due to the strength of the recovery, corporations obtained most of their funds from internal sources. Despite increases in business fixed investment outlays and a move from inventory liquidation to accumulation within the year, the nonfinancial corporate sector is estimated to have borrowed about $33 billion in the first three quarters of 1983, well below the amount borrowed over the same period in 1982. The 1983 borrowing was also considerably less than the amount borrowed in the second half of 1981. The strong stock market led to a significant increase in common stock offerings. Over the first three quarters of the year, gross proceeds from primary public offerings of common stock totaled $33.8 billion, compared to $25.4 billion over the entire year of 1982. As reported in Table 6–8, funds raised by nonfinancial business through debt and equity issues together have been falling since 1981.

Growth in the monetary aggregates in the first half of 1983 was high. M1 grew at a 14.5 percent annual rate, up somewhat from the 11.2 percent annual rate over the last 6 months of 1982. The two other monetary aggregates reported by the Federal Reserve, M2 and M3, grew at rates of 16.4 percent and 10.5 percent, respectively, over the same period. These two aggregates had grown at rates of 10.5 percent and 10.7 percent, respectively, over the last 6 months of 1982. The high rates of money growth in the first half of the year were the result of an accommodative monetary policy stance that had

the effect of avoiding sizable changes in interest rates during a period in which the Federal Reserve was uncertain about the significance of the large deposit flows associated with new deposit instruments.

The new money market deposit accounts (MMDAs), first offered by depository institutions in mid-December 1982, attracted $320 billion by March 1983. Funds in MMDAs, which are included in M2 and M3 but not in M1, grew to about $370 billion at the end of the year. Another significant innovation was the introduction in early January of Super-NOW Accounts which have unlimited checkwriting privileges and are not subject to interest rate ceilings. Funds in these accounts, which are included in M1, grew to about $27 billion by the end of March, and to $37 billion by the end of the year.

Most of the adjustment to the new accounts appears to have taken place early in the year. In addition, most of the funds flowing into MMDAs seem to have come from other components of M2. Between December 1982 and March 1983, while MMDAs were attracting $320 billion, general purpose and broker/dealer money market mutual funds lost $28 billion and conventional time and savings accounts lost $162 billion. The components of M1 and M2 are shown in Table 6–9.

TABLE 6–9.—*Components of M1 and M2, 1979–83*

[Averages of daily figures; billions of dollars; seasonally adjusted, except as noted]

Item	December				
	1979	1980	1981	1982	1983 [1]
Currency	106.3	116.2	123.2	132.8	146.0
Plus: Demand deposits [2]	265.7	270.9	240.9	244.0	247.9
Other checkable deposits	17.0	26.9	76.6	101.3	127.1
Equals: M1	389.0	414.1	440.6	478.2	521.1
Plus: Savings deposits	423.1	400.7	344.4	359.3	312.3
Money market deposit accounts (MMDAs) [3 4]	0	0	0	43.2	372.4
Small time deposits	635.9	731.7	828.6	859.1	792.1
Overnight repurchase agreements (RPs) and overnight Eurodollars [4]	21.2	28.4	36.1	44.3	56.1
Money market mutual fund balances (excluding institution accounts) [4]	33.4	61.4	150.9	182.2	138.0
Equals: M2 [5]	1,497.5	1,630.3	1,794.9	1,959.5	2,184.6

[1] Preliminary.
[2] Includes travelers checks.
[3] Introduced December 14, 1982.
[4] Not seasonally adjusted.
[5] M2 will differ from the sum of components by a consolidation adjustment that represents the estimated amount of demand deposits and vault cash held by thrift institutions to service time and savings deposits.

Source: Board of Governors of the Federal Reserve System.

In the middle of 1983 the Federal Reserve became less accommodative in its provision of reserves. As a result, interest rates rose moderately. Also, the greatest part of the portfolio adjustment to the introduction of the new deposit accounts was probably complete by that time. Growth of the monetary aggregates slowed; over the 6 months ending in December, M1, M2, and M3 grew at annual rates of 3.7 percent, 6.8 percent, and 8.2 percent, respectively.

In February the Federal Reserve announced 1983 target growth ranges for M2 and M3. But because of the uncertainty it felt over the effect of the new accounts on the demand for money, the Federal Reserve announced only a "monitoring" range for M1, which was set at 4 to 8 percent from its average level in the fourth quarter of 1982. The M2 target growth range was set at 7 to 10 percent from its average level in February and March. The M3 range was set at 6.5 to 9.5 percent from its average level in the fourth quarter of 1982. Following rapid growth in M1 over the first half of 1983, in July the Federal Reserve revised the M1 growth range to 5 to 9 percent from its average level in the second quarter. Chart 6–4 shows M1 and its target ranges in 1983.

THE OUTLOOK FOR 1984

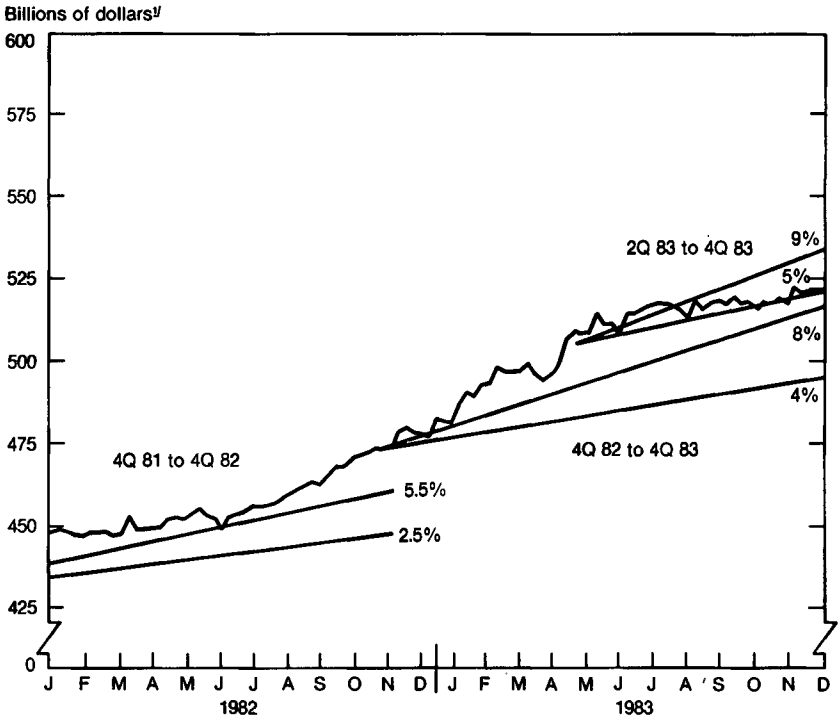
Table 6–10 summarizes the basic elements in the Administration's economic projections for 1984 and corresponding data for 1983. The rate of growth in real GNP is expected to decline as is typical in the second year of expansion. Real GNP is projected to grow at 4.5 percent over 1984. The unemployment rate is expected to fall to an average of 7.6 percent in the fourth quarter of the year.

The inflation rate as measured by the GNP implicit price deflator is expected to rise slightly in 1984, to 5.0 percent over the four quarters of the year. The slight increase in projected inflation reflects the view that 1983 inflation was depressed to some degree by cyclical factors and two special factors that seem unlikely to recur in 1984. The two special factors were the decline in energy prices early in 1983 and the continuing appreciation of the foreign exchange value of the dollar over the year. These cyclical and special factors should be viewed as transitory disturbances to the underlying rate of inflation determined by money growth and trends in the income velocity of money.

The Administration's economic outlook is based on an analysis of business cycle regularities and other information, including forecasts, obtained from the private sector. The projections for real GNP and inflation in 1984 are close to the median of private sector forecasts

Chart 6-4

M1: Actual versus Target Range



[1] Monthly averages of daily figures, seasonally adjusted.
Source: Board of Governors of the Federal Reserve System.

for those variables. Further details on the Administration's outlook are reported in Table 6–10.

THE OUTLOOK FOR 1985–89

The Administration's economic assumptions for 1985–89 are reported in Table 6–11. These economic assumptions reflect the Administration's view on probable basic economic trends under the assumption that the Federal budget deficit and the rate of money growth decline over time. A different set of economic assumptions would, of course, be appropriate if different policies were pursued.

Because economic outcomes are dependent on numerous conditions other than the assumed economic policies, it is appropriate that the long-run economic assumptions reflect underlying trends. Moreover, because the primary use of the long-term economic assump-

TABLE 6–10.—*Economic outlook for 1984*

Item	1983 [1]	1984 forecast
Percent change (fourth quarter to fourth quarter):		
Real gross national product	6.1	4.5
Personal consumption expenditures	5.4	2.0
Nonresidential fixed investment	11.5	9.5
Residential investment	38.2	6.0
Federal purchases	−6.0	3.7
State and local purchases	.6	4.2
GNP implicit price deflator	4.1	5.0
Compensation per hour [2]	4.6	5.5
Output per hour [2]	3.2	2.1
Level in fourth quarter: [3]		
Unemployment rate (percent) [4]	8.4	7.6
Housing starts (millions of units, annual rate)	1.7	1.8

[1] Preliminary.
[2] Nonfarm business, all persons.
[3] Seasonally adjusted.
[4] Unemployed as percent of total labor force including persons in the Armed Forces stationed in the United States.

Sources: Department of Commerce (Bureau of Economic Analysis and Bureau of the Census), Department of Labor (Bureau of Labor Statistics), and Council of Economic Advisers.

TABLE 6–11.—*Administration economic assumptions, 1984–89*

[Calendar years, except as noted]

Item	1984	1985	1986	1987	1988	1989
	Level					
Employment (millions) [1]	106.3	108.4	110.7	113.2	116.0	118.3
Unemployment rate (percent) [2]	7.8	7.6	7.3	6.8	6.1	5.7
	Percent change					
Consumer prices [3]	4.4	4.6	4.5	4.2	3.9	3.6
Real GNP	5.3	4.1	4.0	4.0	4.0	3.9
Real compensation per hour [4]	.5	1.3	1.5	1.9	1.9	1.8
Output per hour [4]	1.9	2.1	1.8	1.5	1.0	.9

[1] Employment series includes persons in the Armed Forces stationed in the United States.
[2] Unemployed as percent of total labor force. See footnote 1.
[3] Wage earners and clerical workers.
[4] Nonfarm business, all persons.

Source: Council of Economic Advisers.

tions is program and budget planning, no issue of Federal policy depends on precise predictions of year-to-year fluctuations in GNP.

The Administration's economic assumptions for 1985–89 involve higher real growth and lower inflation than many private forecasters are predicting; Administration and private sector nominal GNP growth rates are similar. Compared to many private forecasts the Administration's higher real growth assumption probably reflects a different fiscal policy assumption and a different analysis of the growth

prospects for the U.S. economy. The underlying fiscal assumption is that reduced growth in Federal spending and lower budget deficits will enhance the economy's long-run growth. The Administration's real growth assumptions are based on the assumption that labor productivity growth will be higher than that over the last decade, reflecting an environment of lower inflation and higher rates of saving and capital formation. In contrast, many private forecasters seem to be anticipating a continuation of the low productivity growth that characterized the 1970s.

GROWTH IN REAL GNP

Administration policies are designed to achieve a long, sustainable economic expansion that takes the economy back to full employment with declining inflation. The assumption of 4.0 percent growth in real GNP for the 1985–88 period is a trend or average growth rate projection; the economy may grow somewhat more or less rapidly in any given year. In the Administration's view, any attempt to induce a substantially higher real growth rate by monetary stimulus might be temporarily successful, but growth accelerated in this way would not be sustainable. The result would soon be rising inflation and another recession.

The Administration's real growth assumption falls to 3.6 percent by the fourth quarter of 1989. This assumption for 1989 does not reflect a "forecast" as that term is normally used, but rather the recognition that the economy's long-run growth potential most likely is below 4 percent. For example, over the 33-year period between the business cycle troughs in 1949 and 1982, real growth averaged 3.4 percent per year.

The Administration's economic assumption of 4 percent real growth for the 1985–88 period, therefore, assumes a gradual increase in the utilization of the economy's labor and capital resources. For a number of reasons, however, it is impossible to determine the specific year in which real GNP growth will slow. One of the principal reasons for this indeterminacy is that the sustainable level of resource utilization is not known with precision; moreover, that level can be altered through changes in microeconomic policies. The underlying rate of growth of the economy is not known with precision either. The importance of this factor is well illustrated by a simple calculation. A difference of only 0.1 percentage point in the underlying growth rate accumulates to 0.5 percentage point in 5 years, sufficient in one direction to permit 4.0 percent real GNP growth to continue after 1989, or, in the other direction, to cause growth to slow in 1988 instead of 1989. The year-to-year variations in real GNP growth rates

require an allowance for errors several times the size of the one in this illustration.

Another perspective on the Administration's real growth assumptions may be obtained by comparing them with real growth following prior business cycle troughs. Under the Administration's economic assumptions, average annual real GNP growth over the 7 years from the cycle trough in the fourth quarter of 1982 to the fourth quarter of 1989 is 4.3 percent. Real growth over comparable periods following prior business cycle troughs, excluding the ones in 1949 and 1980, averaged 3.8 percent. The highest of these 7-year growth rates followed the 1961 trough; the rate for that period was 5.0 percent. The lowest was 3.0 percent following the 1954 and 1975 troughs.

A visual perspective on the Administration's real GNP assumptions through 1989 can be obtained from Chart 6–5. This chart shows actual quarterly real GNP from 1970 through 1983, and projected real GNP from 1984 through 1989. Superimposed on the chart is a trend line fit to the data from the business cycle peak in the fourth quarter of 1969 to the business cycle peak in the third quarter of 1981 and then projected forward.

From the chart it can be seen that the Administration's economic assumptions take real GNP back to the indicated trend line by 1989. Differences in the way the trend is fit would affect the relationship between the 1989 trend and assumed levels of real GNP.

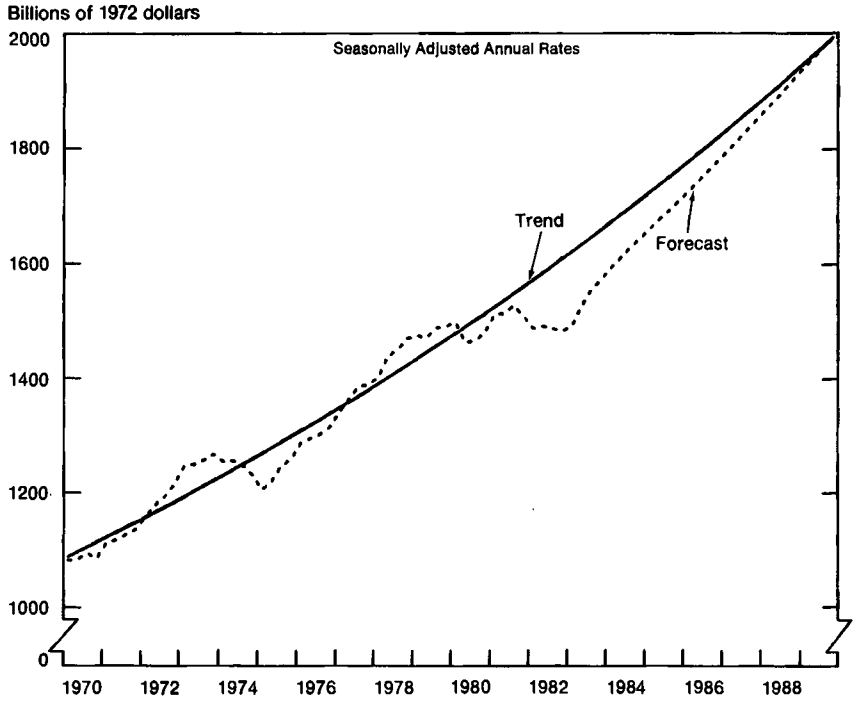
INFLATION

As seen in Table 6–11, the Administration has assumed a gradually declining rate of inflation over the 1985–89 period. This assumption reflects the view that the goal of stability in the general price level is appropriate because inflation not only is costly and inequitable in and of itself but also is disruptive of economic growth and employment stability. Also, eliminating inflation can be expected to reduce volatile changes in inflationary expectations, which are a major contributing factor to business cycle fluctuations.

The gradual reduction in inflation assumed by the Administration does not depend on a policy assumption that such a result will be "forced" by deliberate actions to choke off economic growth whenever there is any sign of a rise in inflation. Rather, the decline in inflation is the anticipated outcome of the assumed steady and predictable monetary and fiscal policies. As with real growth, it is expected that inflation may sometimes be higher and sometimes lower than the Administration's assumption, but that the trend will be downward as indicated.

Chart 6-5

Real Gross National Product Forecast and Trend



Note.—Trend fitted from data for 1969 fourth quarter through 1981 third quarter.
Sources: Department of Commerce and Administration Forecast.

INTEREST RATES

Given the assumed decline in the inflation rate, it is reasonable to assume that the expected rate of inflation will also decline, thereby reducing the inflation premium in nominal interest rates. In addition, under the assumptions of a declining budget deficit and a more stable economic environment, the real rate of interest should decline, ultimately reaching a level approximating the real rate prior to the onset of the inflationary 1970s.

Interest rates, of course, have been quite variable historically and very difficult to forecast. Although the Administration's economic policies are designed to produce a more stable economy than in the 1970s, interest rate fluctuations around the declining trend should be anticipated.

THE FULL EMPLOYMENT AND BALANCED GROWTH ACT OF 1978

The Full Employment and Balanced Growth (Humphrey-Hawkins) Act of 1978 sets certain national economic goals and requires that the *Economic Report of the President,* together with the *Annual Report of the Council of Economic Advisers,* provide an analysis of the Nation's progress toward meeting those goals. This section contains such an analysis. In addition, as required by the act, it contains an Investment Policy Report. The requirement for such a report reflects the finding of the Congress, stated in this act, that "high rates of capital formation are necessary to ensure adequate rates of capacity expansion and productivity growth, compliance with governmental health, safety, and environmental standards, and the replacement of obsolete production equipment."

ECONOMIC GOALS

In setting goals for the unemployment and inflation rates in the Balanced Growth Act, the Congress was mindful of the fact that "aggregate monetary and fiscal policies alone have been unable to achieve full employment and production . . . and reasonable price stability." In the act, the Congress made clear that exclusive concentration on any one goal could impede progress in achieving other goals.

A central economic goal of the Congress, as indicated by the title "Full Employment and Balanced Growth Act," was and is the achievement of full employment. That goal is also a high priority for this Administration.

A key observation from experience over the last two decades is that rising inflation has been associated with rising unemployment. Each time inflation accelerated, as measured by the change in the consumer price index—to 6.0 percent over the 12 months of 1969, to 12.2 percent in 1974, and to 13.4 percent in 1979—a temporary boost in employment was achieved at the cost of a subsequent recession. Moreover, the recessions became more serious. The unemployment rate rose from a monthly low of 3.4 percent in May 1969 to a monthly peak of 6.1 percent in December 1970; from 4.6 percent in October 1973 to 9.0 percent in May 1975; from 5.6 percent in May 1979 to 7.8 percent in July 1980; and from 7.2 percent in April 1981 to 10.7 percent in November 1982. As interest rates rose to new peaks—the monthly 3-month Treasury bill rate reached 7.9 percent in 1970, 9.0 percent in 1974, 15.5 percent in 1980, and 16.3 percent in 1981—strains accumulated in the financial system. Few accurately forecasted the severity of these recessions, and consequently it was

difficult for both the private sector and the Federal Government to deal with them. During each recession some businesses were forced into bankruptcy and unemployment rose sharply.

From this experience it is clear that rising unemployment and rising inflation can occur together. Indeed, each time prices accelerated substantially it proved impossible to avoid higher unemployment. Moreover, economic expansion and essentially stable, or declining, inflation can also occur together, as they did in the early 1960s, 1975–76, and most especially 1983. The tradeoff from inflationary economic policies is between lower unemployment temporarily and higher unemployment a short time later.

The Administration is committed to macroeconomic policy designed to avoid this boom-bust cycle and to achieve long-run balanced growth through steady and sustainable policies. Stable and predictable policies offer the greatest promise of achieving a high rate of employment over an extended period of years, with the smallest risk that the economy will experience severe recession.

The Balanced Growth Act set a goal that unemployment not exceed 3 percent among individuals aged 20 and over, and 4 percent among individuals aged 16 and over, by 1983. The act also set an inflation goal of 3 percent by 1983 and zero by 1988, provided that achieving the inflation goal did not impede achieving the unemployment goal. Finally, the act provided that the President could, if he deemed necessary, recommend modification of the timetables for reaching these goals.

Given the experience of the last two decades, recounted very briefly above, it is clear that the essential ingredient of Federal policies to further the employment and inflation goals of the Balanced Growth Act must be sustainability. Table 6–11 above, which reports the Administration's economic assumptions for 1984–89, provides a timetable for progress toward the employment and inflation goals of the act. This table is pursuant to the act's requirement that this *Annual Report* contain numerical goals. Reflecting the situation inherited by the Administration when it assumed office and the severity of the 1981–82 recession, the table does not project complete realization of the act's unemployment and inflation rate goals, but substantial progress toward them.

INVESTMENT POLICY REPORT

The 1983 *Annual Report of the Council of Economic Advisers* contained, in Chapter 4, an extensive analysis of capital formation issues. That analysis serves as the foundation for this much briefer report.

Updating the information published a year ago, and as discussed in more detail earlier in this chapter, 1983 was a year of rising invest-

ment spending from the recession trough. Nevertheless, for the full year 1983 real gross business fixed investment rose by only 1.1 percent over 1982 and real net investment fell by 11.4 percent. However, rising equipment investment over the course of 1983 suggests that the investment incentives in the tax acts of 1981 and 1982 are now having the desired effect.

In addition to the investment incentives in the tax law, a higher rate of investment is being encouraged by the lower rate of inflation. Lower inflation increases the real value of capital depreciation allowances. Lower inflation also helps to provide the more stable economic environment needed to reduce risks and make business planning easier.

The Administration's efforts to provide a stable and more productive business environment conducive to rising investment also include a number of microeconomic policies. Deregulation reduces costs and promotes efficient use of the economy's resources. A general policy of relying on the market reduces the risks to the profitability of investment from future extensions of regulation. Financial deregulation, discussed in Chapter 5 of this *Annual Report,* can be expected to improve the efficiency with which financial capital is allocated. Expanding international trade by resisting protectionism, as discussed in Chapter 2, will also assist in raising real growth.