

**THE ANNUAL REPORT
OF THE
COUNCIL OF ECONOMIC ADVISERS**

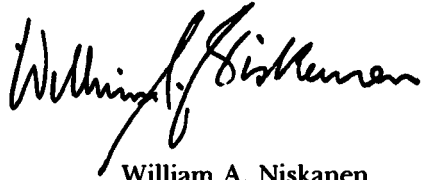
LETTER OF TRANSMITTAL

COUNCIL OF ECONOMIC ADVISERS,
Washington, D.C., January 19, 1985.

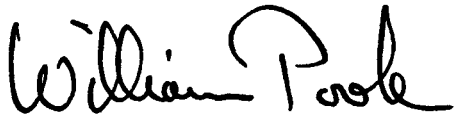
MR. PRESIDENT:

The Council of Economic Advisers herewith submits its 1985 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,

A handwritten signature in black ink, reading "William A. Niskanen". The signature is written in a cursive style with a large, sweeping "W" and a long, trailing "n".

William A. Niskanen
Member

A handwritten signature in black ink, reading "William Poole". The signature is written in a cursive style with a large, sweeping "W" and a long, trailing "e".

William Poole
Member

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CHAPTER 1

Economic Policy for Growth and Stability

AS THE PRESIDENT BEGINS HIS SECOND TERM, it is time to take stock—to review the inherited conditions, policy actions, and unforeseen events that shaped the first term and established the initial conditions for the second term. Taking stock will help to define the job to be done over the next 4 years, the fundamental nature of which is to develop economic policy for growth and stability.

Looking back 4 years, it is not difficult to see why continuing emphasis on growth and stability is appropriate. Policy formulation in January 1981 was conditioned by these facts: labor productivity in the nonfarm business sector in 1980 was 2.2 percent below its 1978 level; the total unemployment rate had risen to 7.4 percent from a low of 5.5 percent in mid-1979; the 12-month inflation rate as measured by the consumer price index (CPI) was 11.7 percent, compared with only 4.8 percent in 1976; and the 13-week Treasury bill rate was 15.0 percent, up from a 1976 average of 5.0 percent.

These summary statistics understate the nature of the economic problem facing the Administration in January 1981. The economy was unsteady, only a few months into a recovery from the short, sharp recession in the first half of 1980. Both renewed recession and continued volatile inflation seemed possible. Throughout U.S. history, bouts of inflation had been regarded as temporary departures from price stability, but by 1980—after 15 years of inflation at varying rates—rising prices were coming to be regarded as normal. So also were the instabilities of output, employment, and government policy associated with inflation. In this uncertain environment, the Administration was faced with the task of introducing fundamental changes in the direction of economic policy.

It is not surprising that the economy's response to major changes in monetary and fiscal policy was not smooth. The recession that began in August 1981 occurred after only 12 months of incomplete recovery from the 1980 recession. Although the peak-to-trough decline over the 1981–82 recession was not unusually large relative to previous recessions, unemployment and excess manufacturing capacity in late 1982 reached the highest rates in the postwar period.

But the economic recovery in 1983–84 was sparkling. Employment and output gains were large, and they were achieved in an environment of stable to declining inflation. Productivity growth had resumed. Gross business fixed investment rose especially rapidly, and in real terms reached the highest share of gross national product (GNP) in the postwar period. At the end of 1984 the unemployment rate was 7.1 percent, the 12-month CPI inflation rate was 4.0 percent, and the 3-month Treasury bill rate was 8.1 percent. Numerous other indicators signaled a resumption of economic growth and vitality within an environment of greater economic stability and growing confidence on the part of most Americans.

Economic performance over the past 4 years may be best understood within this framework: The period began with a difficult set of inherited economic conditions. In 1981 the Administration and the Congress enacted major changes in the direction of fiscal policy, and the Federal Reserve System maintained a policy of substantial monetary restraint. The economy underwent a transitional period of adjustment shaped by the inherited conditions and the policy changes. Finally, the economy began to follow a course of renewed growth and stability.

This framework, although useful, is in many ways too orderly. Over the past 4 years special problems and surprises appeared. The 1981–82 recession was of greater severity and duration than had been foreseen. The international debt crisis required rapid response. Interest rates remained surprisingly high and were often volatile. The U.S. dollar continued to amaze most observers by its almost continuous appreciation against foreign currencies. The current account deficit in the balance of payments became very large by historical standards. Finally, the Federal budget deficit turned out to be much larger than had been anticipated.

At the beginning of 1985 certain conditions—especially the budget deficit and the possibility of future monetary instability—remain as sources of uncertainty to private decisionmakers and as challenges to policymakers. The task ahead is to ensure that present policy problems are solved satisfactorily, so that 1981–84 will indeed be properly viewed as a transitional period followed by an era of substantially improved economic performance. But if the policy agenda cannot be completed and does not fulfill the promise of the gains achieved, history's interpretation of the past 4 years will be different. This period will then be properly regarded as simply another volatile episode in which gains from improved policies were later lost as the Nation was unable to finish the task of changing the direction of economic policy.

The first third of this chapter is devoted to a review of the performance of the economy under the Administration's first-term programs. Policy principles for growth and stability are explored in the middle third of the chapter, and the economic outlook for 1985-90 is discussed in the final third.

THE ECONOMIC RECOVERY PROGRAM

The President took office determined to redirect economic policy. On February 18, 1981, the Administration submitted its program to the Congress in a document entitled, "America's New Beginning: A Program For Economic Recovery." Quoting from that document, the key elements of the program were:

1. A budget reform plan to cut the rate of growth in Federal spending.
2. A series of proposals to reduce personal income tax rates by 10 percent a year over three years and to create jobs by accelerating depreciation for business investment in plant and equipment.
3. A far-reaching program of regulatory relief.
4. And, in cooperation with the Federal Reserve Board, a new commitment to a monetary policy that will restore a stable currency and healthy financial markets.

The fundamental goals of the program were restoration of economic growth and stability. Reduction of governmental obstacles to production and improved incentives for work, saving, and investment were essential. So also was restoration of price stability. Overall, the policy direction has been guided by a clear and consistent set of principles, of which the most important have been reliance on markets and the maintenance of a long-run policy orientation.

THE BACKGROUND OF POOR ECONOMIC PERFORMANCE

Numerous forces destructive to productivity and output growth were at work in the late 1970s. Measuring from one business cycle peak to another, productivity gains in the nonfarm business sector trailed off from the postwar average of 2.4 percent annual growth between 1948 and 1973 to 0.6 percent between 1973 and 1980. Real GNP growth declined from 3.8 to 2.7 percent per year over the same two periods. In real terms the take-home pay of workers was eroded by the slow productivity growth, by a reduction in average hours worked per week, and by rising tax burdens as inflation pushed most workers into higher tax brackets.

In early 1981, Americans still remembered the recessions of 1969-70, 1973-75, and 1980. However unwelcome this record, it was not unusual in the light of U.S. history. It was unusual, however, that the

economic recovery in the second half of 1980 seemed to have so little promise of being long sustained, primarily because the inflation rate was so high.

It is important to note, however, that more than 14 million new jobs were created between the recession trough in March 1975 and the next business cycle peak in 1980. Because employment grew more rapidly than the working-age population, the fraction of the population employed increased. In the 1970s the U.S. economy continued to be a marvelous job-creating machine.

But during the late 1970s, the inflation that accompanied the employment gains showed that economic policy was on an unsustainable course. After 1976 the inflation rate rose every year, with the annual CPI increase peaking at 13.3 percent in 1979 before falling to a still high 12.4 percent in 1980. Reflecting this inflation, between mid-1976 and mid-1980 the foreign exchange value of the dollar fell by about 20 percent on a trade-weighted basis.

Rising inflation was the most important determinant of rising interest rates in the late 1970s. Despite sharp increases in nominal interest rates, the real, or inflation-adjusted rate of interest rose relatively little. Holders of long-term bonds were especially harmed. Inflation eroded the purchasing power of annual interest payments on outstanding bonds, and rising interest rates reduced bond prices, leaving bondholders with capital losses. It has been estimated that the typical holder of long-term U.S. Government bonds suffered losses, in real terms, of about 7 percent in 1977, 9½ percent in 1978, 13 percent in 1979, and 14½ percent in 1980.

Given this experience, it is not surprising that investors became increasingly wary. Bonds—previously a safe and conservative investment—had become risky and speculative. Asset demands shifted away from productive capital in the United States toward investment in foreign assets and various speculative real and financial assets, such as precious metals.

THE BACKGROUND OF UNSUSTAINABLE ECONOMIC POLICIES

In the 1970s the interaction of economic events and economic policy created a growing uncertainty about the future, which was manifested most clearly in rising and increasingly volatile interest rates and a falling dollar on the foreign exchange market. Money growth, as measured by the M1 definition, was 5.0 percent in 1975 before beginning a sustained rise. In 1976 the rate was 6.1 percent; in 1977, 8.1 percent; in 1978, 8.2 percent; and in 1979, 7.5 percent. In the latter 3 years money growth exceeded the Federal Reserve's announced growth targets, contributing to market concern over monetary policy.

Rising interest rates after 1976 did not signal tight monetary policy. As actual and expected inflation rose, interest rates were bid up by rising credit demands. The stance of the Federal Reserve became more restrictive in November 1978, but money growth and inflation remained high. In October 1979 the Federal Reserve, in an effort to keep monetary growth within its targets, announced a dramatic policy shift toward greater relative emphasis on controlling the provision of reserves to the banking system and less on controlling interest rates. Unfortunately, after this change in operating procedures, both short-run money growth and interest rates became more volatile, adding to market uncertainties about monetary policy.

Fiscal policy, as reflected by the Federal deficit in the national income and product accounts, on the surface appeared on track in the late 1970s. The deficit fell from 3.1 percent of GNP in calendar year 1976 to 0.7 percent of GNP in 1979, mostly because inflation swelled tax receipts. However, with the short recession in 1980 the deficit rose to 2.3 percent of GNP in that year. Total Federal receipts as a fraction of GNP increased continuously throughout this period, eventually reaching an all-time high of 21.1 percent in 1981. Personal income tax receipts grew by 77.2 percent between 1976 and 1980, compared with nominal GNP growth of 53.2 percent, as inflation pushed individuals into higher tax brackets.

Federal regulatory policy was a source of difficulty. Three manifestations of a general reliance on regulation instead of market forces to solve economic problems deserve special attention.

First, in the late 1970s the Federal Government attempted to rely on wage and price guidelines to control inflation, despite the lack of success with guidelines in the 1960s and the disruptive failure of comprehensive wage and price controls in the early 1970s. In late 1978 voluntary standards for pay and price increases were announced. In March 1980 a credit control program was introduced that contributed to an increase in the unemployment rate from 6.2 percent to 7.7 percent between March and July 1980. Moreover, during 1980 the GNP price deflator continued to rise at a rate in excess of 10 percent, a rate somewhat above the 8.2 percent rate throughout the four quarters of 1979.

Second, specific controls on oil and gas prices, production, and distribution created significant distortions in the markets for petroleum and petroleum products. Following both the 1973-74 and 1979-80 increases in world oil prices, the effects of price controls and their accompanying allocation regulations were severe. Widespread shortages of gasoline and other products and numerous changes and exceptions to the regulations made business planning more difficult.

Finally, throughout the 1970s inefficient regulatory approaches to environmental, health, and safety problems raised production costs and created considerable uncertainty as rules and regulations shifted and changed. One outcome of these policies was a substantial increase in the cost of new business investment with a corresponding reduction in the expected rate of return, reducing business fixed investment and productivity growth.

FISCAL POLICY 1981-84

The cornerstone of the Administration's tax policy, the Economic Recovery Tax Act (ERTA), was signed into law in August 1981. This Act legislated sweeping changes in both the individual and corporation income tax systems.

This Act provided for an across-the-board reduction in individual income tax rates amounting to 23 percent at the end of 3 years, and an immediate cut in the top bracket rate from 70 to 50 percent. The new law also established that, beginning in 1985, the tax brackets, exemption amounts, and the zero-bracket amount would be indexed annually for inflation. This change ensured that inflation would not erode the ERTA tax reductions by pushing individuals into higher tax brackets.

Reduced marginal tax rates were designed to increase incentives for supplying labor and acquiring training and education. There was a shift in emphasis away from using the tax system to redistribute income and toward the creation of national income through economic growth.

Responding to a widely held concern that the pace of capital formation had been insufficient, ERTA allowed accelerated depreciation of new capital assets and a system of expanded investment tax credits. Both of these provisions decreased the effective tax burden on new investment, and thus provided an incentive for increased capital formation. To encourage saving, ERTA extended the individual retirement account program to individuals covered by employer-sponsored retirement plans and increased the maximum annual contribution from \$1,500 to \$2,000.

The Tax Equity and Fiscal Responsibility Act of 1982 modified some of the effective tax reductions granted to businesses under ERTA. One of the objectives was to reduce the tax benefits of the investment tax credit and the accelerated cost recovery system so that they would not be more generous than an immediate writeoff. Although this Act repealed further accelerations of depreciation allowances scheduled for 1985 and 1986, the ERTA depreciation schedules for 1981-84 were left basically intact. The 1982 Act also contained provisions relating to "Safe Harbor Leasing," compliance, in-

surance, excise taxes, and other matters. The revenue provisions of the Social Security Amendments of 1983 apply predominantly to years after 1984, and therefore had little revenue impact before that time. The Deficit Reduction Act of 1984 contained numerous tax code changes, most of which were individually small and designed to make existing tax laws more effective.

The 1981–84 changes in tax law reduced receipts as a share of GNP to the range that had existed over most of the 1970s—from 21.1 percent in 1981 to an estimated 19.2 percent in 1984. Without these changes, Federal receipts would have risen further—to an estimated 22.0 percent of GNP in 1984 *given* actual 1984 economic conditions. However, in the absence of tax law changes, GNP growth during the recovery would probably have been lower.

The changing composition of Federal expenditure since 1980 clearly reflects the objectives of the Administration. As a share of GNP, defense purchases grew from 5.0 percent in 1980 to 6.0 percent in 1984, while total spending less defense purchases and net interest payments declined from 15.9 percent in 1980 to 14.8 percent in 1984. However, total Federal expenditure increased from 22.9 percent of GNP in 1980 to 24.0 percent in 1984. The Federal deficit rose from 2.3 percent of GNP in 1980 to 4.8 percent in 1984.

MONETARY POLICY 1981–84

There were three major phases to monetary policy over the 1981–84 period. In the first phase, extending to mid-1982, the Federal Reserve's main concern was to restore credibility in the markets by pursuing a restrictive monetary policy designed to reduce inflation. Although the 1980 credit control program was a contributing factor, monetary policy procedures introduced in October 1979 quite generally yielded *both* volatile interest rates and volatile money growth. Moreover, as the recession developed, the average rate of money growth in 1981 and the first half of 1982 was substantially lower than it had been over the previous several years. Money growth did not decline gradually and predictably as advocated by the Administration.

The second monetary policy phase began in the late summer of 1982. Prompted by the international debt crisis and accumulating evidence that the recession would be deeper and more protracted than had been expected, the Federal Reserve abandoned the short-run operating procedures introduced in October 1979 and turned to procedures that were similar to those pursued before 1979.

Interest rates fell sharply as money growth accelerated starting in August 1982. The Federal Reserve permitted money growth to remain high as deregulation allowed depository institutions to introduce new types of deposit accounts in December 1982 and January

1983, temporarily clouding the interpretation of the monetary aggregates data. However, as the economy revived in the winter and spring of 1983, both the Federal Reserve and the Administration became more concerned about the continuing high rate of money growth.

The third phase of monetary policy began in the late spring of 1983. Controlling money growth again became an important objective of Federal Reserve policy, and money-market interest rates were permitted to rise. From the middle of 1983 through mid-1984, money growth was substantially below the rate from mid-1982 to mid-1983. In the second half of 1984 money growth declined even further.

REVIEW OF 1981-84 ECONOMIC PERFORMANCE

Shortly after this Administration took office it was faced with a recession. At the end of 1981 and into early 1982, however, there were reasons to believe that the recession would not be particularly deep. In 1982 the *initially* reported data showed that in the first quarter real final sales grew at a 1.9 percent annual rate—the data now show a decline of 1.0 percent—and that in the second quarter real GNP rose at a 1.7 percent rate—the data now show a decline of 0.8 percent. However, later in the year incoming data indicated that the economy was weaker than had been thought.

Late 1982 was a very uncomfortable time for economic policymakers. Although the classic signs of recovery were accumulating, many observers remained pessimistic. By the end of 1982 the recession had run its course, however. The unemployment rate peaked at 10.6 percent in November and December. By early 1983, the probable resumption of economic growth was signaled by a number of indicators including the beginning of strong growth in real final sales that, from data now available, rose at a 5.5 percent annual rate in the fourth quarter of the year. With final sales rising while total output was about flat, there was a substantial reduction of inventory stocks, which helped to provide the conditions for a resumption of output growth.

It appears that monetary conditions on both the demand and supply sides contributed to the depth of the recession. Money demand—measured by the quantity of money held relative to GNP—rose to an unusual degree, probably reflecting both the reduced cost of holding money balances as market interest rates fell and the spread of interest-bearing negotiable order of withdrawal (NOW) accounts nationwide. Uncertainty attributable to volatile economic and financial conditions may also have raised the demand for money. In addition, from early 1981 through mid-1982 the Federal Reserve per-

mitted substantially lower M1 money growth than had prevailed over the previous several years. This contributed downward pressure on the economy as well.

Fiscal policy may have provided some support to aggregate demand as the ERTA tax cuts gradually took effect and national defense purchases grew, but the stimulus was probably small. The ERTA investment incentives cushioned the decline in business fixed investment, but high real interest rates tended to depress housing construction, inventory investment, and expenditure on consumer durables. High real rates of interest were also important to the strengthening of the dollar and consequent decline of net exports.

The 1981-82 recession was a painful experience for many. The unemployment and bankruptcy rates were high. The protracted recession was an unexpected and unwanted part of the economy's transition to lower inflation. The severity of the recession should serve to emphasize the importance of avoiding the economic conditions that created it.

THE 1983-84 RECOVERY

The recovery in employment and output has been brisk. Even with the slowdown in real GNP growth in the second half of 1984, the present recovery through the first eight quarters is still the strongest since the Korean war. By the end of 1984 the unemployment rate had declined by 3.5 percentage points, and industrial production had risen by more than 23 percent from the recession trough. Table 1-1 provides comparative data on postwar expansions.

TABLE 1-1.—*Real GNP growth over first eight quarters of business cycle recoveries*

[Percent]

Business cycle trough quarter	Average annual growth over		
	First four quarters	Second four quarters	First eight quarters
Present recovery:			
1982 IV.....	6.3	5.6	6.0
Previous postwar recoveries:			
1949 IV.....	13.3	5.9	9.6
1954 II.....	7.4	2.6	5.0
1958 II.....	8.4	1.7	5.0
1961 I.....	7.0	3.3	5.1
1970 IV.....	4.7	7.0	5.8
1975 I.....	6.7	4.4	5.5
1980 III.....	4.0	-3.0	.4
Average of five recoveries ¹	6.8	3.8	5.3
Average of seven recoveries.....	7.4	3.1	5.2

¹ Excludes 1949 and 1980.

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

Source: Department of Commerce, Bureau of Economic Analysis, except as noted.

Some of the major characteristics of the present expansion are revealed in Table 1-2, which reports the percentage point contributions of various demand components to the total increase in real GNP and compares them with a "typical" expansion. The typical expansion is defined as the average of postwar expansions excluding those beginning in the fourth quarter of 1949 and the third quarter of 1980; the former was distorted by the Korean war and the latter lasted only four quarters.

TABLE 1-2.—*Sector contribution to real GNP growth: typical and current recovery*

Item	Annual rate over first eight quarters	
	Typical recovery ¹	Current recovery ²
REAL GNP GROWTH (percent change)	5.3	6.0
Sector contribution to GNP growth (percentage points):		
Personal consumption expenditures	3.2	3.3
Durable goods .....	.9	1.2
Nonresidential fixed investment .....	.6	1.8
Producers' durable equipment .....	.5	1.5
Structures .....	.1	.3
Residential investment .....	.5	.6
Change in business inventories .....	.7	1.3
Net exports of goods and services	-.1	-1.3
Exports .....	.4	.3
Imports ³ .....	.4	1.6
Government purchases of goods and services .....	.3	.3
Federal	-.1	.1
Federal excluding CCC purchases	-.1	.4
State and local .....	.4	.2
Final sales:		
Total ⁴	4.6	4.7
Excluding CCC purchases ⁵	4.6	4.9
To domestic purchasers ⁶	4.6	6.0
Domestic excluding CCC purchases ⁷	4.6	6.2

¹ Average of recoveries following business cycle troughs in 1954 II, 1958 II, 1961 I, 1970 IV, and 1975 I.

² Calculated from 1982 IV business cycle trough to 1984 IV; data for 1984 IV are preliminary.

³ Negative contribution to GNP growth.

⁴ GNP less change in business inventories.

⁵ CCC purchases removed because inversely related to change in business inventories with dollar for dollar offset for payment-in-kind programs.

⁶ Final sales less net exports of goods and services.

⁷ Final sales less net exports of goods and services and CCC purchases.

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

Detail may not add to totals due to rounding.

Source: Department of Commerce, Bureau of Economic Analysis, except as noted.

Consumption and Residential Investment

Throughout the present expansion, both total consumption expenditure and its durables consumption component have increased at quite typical rates. Real disposable income grew at a 5.5 percent rate over the first eight quarters, somewhat above the typical rate of 4.6 percent. The personal saving rate has been somewhat below the 1947-80 average of 6.6 percent. Residential investment was about on track in comparison with the typical recovery.

Business Fixed Investment

Over the first eight quarters of the expansion, gross business fixed investment contributed 1.8 percentage points of real GNP growth, about three times the typical contribution. The strength of investment has been concentrated in durable equipment; structures investment has grown at a more typical rate. The rapid growth of investment from the recession trough has taken the share of real GNP devoted to real gross business fixed investment to 12.5 percent in 1984. By the fourth quarter of 1984 this share had climbed to 12.9 percent. Net business fixed investment as a share of GNP has not set a new high as has gross investment, partly because recent investment has been strong in relatively short-lived components.

A number of conditions have increased the prospective rate of return on new investment, and have thereby been responsible for the investment boom. The ERTA tax incentives and lower inflation have been important. The vigorous recovery has absorbed a significant amount of excess capacity. Prices of investment goods have been unusually well-contained; in fact, the deflator for nonresidential investment in the fourth quarter of 1984 was slightly below its level 2 years earlier. To a considerable extent, this development reflects the strong dollar and the competition from foreign producers of capital goods.

The effects on rates of return in the nonfinancial corporate sector operating through the cost side can be summarized by examining the unit costs of production. Cost increases have been moderate. Unit costs rose at an annual rate of only 0.2 percent over the first seven quarters of the recovery. A 3.4 percent rate of increase of hourly compensation combined with 2.7 percent labor productivity growth resulted in a rise of unit labor costs of about 0.7 percent, while other unit costs dropped at a 1.0 percent rate. The increase in hourly compensation was the lowest of any recovery since the data became available in 1958.

Inventory Investment

Given the large role of inventories in the 1981-82 recession, it is not surprising that a snapback of inventory investment has been a major contributor to the current expansion, especially in its first year. Despite the growth of inventory investment, inventory-sales ratios in late 1984 were still low by historical standards, suggesting that the economy has not developed any serious inventory imbalances.

Net Exports

The decline in the net export balance is one of the striking features of the present expansion. Exports have grown in typical fashion, but imports have grown very rapidly.

It is a mistake to believe that GNP would necessarily have grown more rapidly if imports had grown less rapidly; lower imports would probably not have been entirely replaced by U.S. production of competing goods. The decline in the net export balance was closely related to the appreciation of the dollar, which was caused by efforts to move capital into the United States to take advantage of the attractive investment climate. There would have been a variety of repercussions if the U.S. investment climate had been less attractive and if the dollar had not appreciated so much. With less dollar appreciation the inflation rate would not have declined as much; more of the growth in nominal GNP would have reflected inflation and less would have reflected growth in real output. Although net exports would have been higher, interest-sensitive spending including business investment would have been lower.

Government Purchases of Goods and Services

Government purchases in the national income and product accounts are not the same as government outlays; purchases exclude the transfers component of outlays and reflect certain other differences in concepts from those used in reporting government budgets. As can be seen in Table 1-2, government purchases of goods and services in the present expansion have a contribution to GNP growth that is quite typical of previous expansions. Excluding purchases of the Commodity Credit Corporation (CCC), the Federal Government contribution has been larger than typical.

THE 1981-84 LABOR MARKET

Following declines during the recession, employment increased by 3.6 percent over the first year of the recovery and by 3.1 percent over the second year; both of these increases were well above the average rate for postwar recoveries. During both the recession and the recovery, money wage increases moderated substantially. Virtually all measures of labor compensation were rising at around 9 percent in 1980, but in 1983 and 1984 most of these measures were rising only about half as rapidly. The hourly earnings index, for example, rose by 9.3 percent in 1980 but by only 3.3 percent in 1984, the lowest increase since 1965.

Union wages began decelerating before nonunion wages and the deceleration of union wages has been greater than that for nonunion wages. This development may reflect cyclical pressures on certain industries and also longer run market forces tending to reduce the gap between union and nonunion wages.

Some recent union wage settlements have involved an actual reduction in wages or fringes, a relaxation of work rules, or wage

freezes. Concessions have occurred in previous recessions, but the scale of recent concessions is unprecedented.

It is possible to pinpoint some forces that have led to these new bargaining patterns. Industries face increased competition from foreign and domestic producers. Imports have increased dramatically in the apparel, textiles, and footwear industries. Concession bargaining has dominated wage settlements in construction over the past year as the market position of firms employing nonunion workers has grown. Older trucking and airline firms have faced new competitors as deregulation reduced barriers to entry.

Despite the dramatic deceleration in money wages starting in 1982, rising productivity has permitted real wages to rise without eroding business profits. Other forces that reduced total take-home pay in the seventies were reversed as well. Real hourly compensation has increased since 1981, hours per week have risen, and average tax rates have fallen.

INFLATION AND INTEREST RATES

Between 1981 and 1984 the inflation rate declined more rapidly than even most optimists had expected. Inflation, as measured by the GNP deflator, declined from about 9.0 percent in 1981, to 4.3 percent in 1982, 3.8 percent in 1983, and 3.5 percent in 1984. Anticipated inflation, as recorded in a regular survey, was above actual inflation in every quarter except the first and third quarters of 1981.

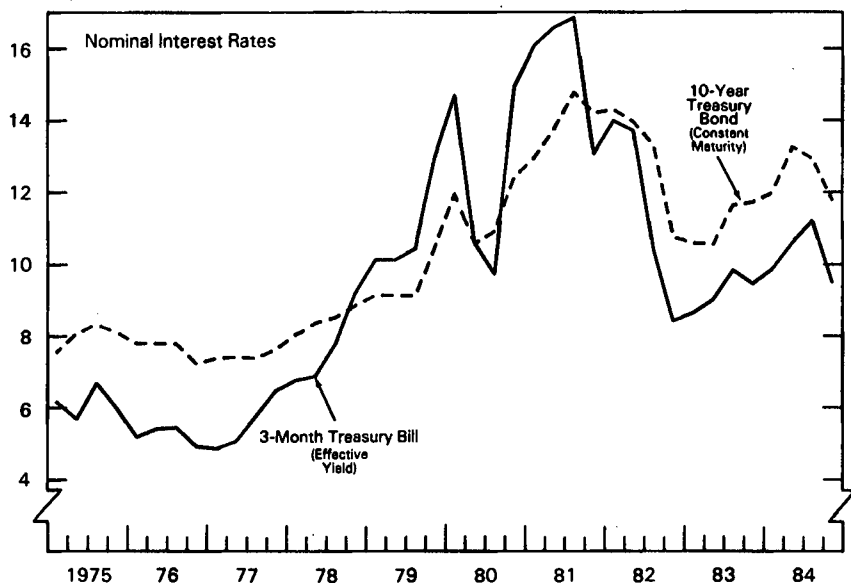
Although it is common for inflation to fall somewhat during the early stages of business cycle recoveries, few observers anticipated that the inflation rate would remain so low during a recovery as rapid as that experienced in 1983-84. The inflation rate rose slightly in the second half of 1983 and early 1984, but there was no apparent tendency for the rate to rise further. Indeed, over the course of 1984 the inflation rate declined somewhat. However, inflation is still higher than desirable, and it is worth noting that the services component of the CPI in 1984 showed some signs of slightly rising inflation.

Chart 1-1 provides a perspective on interest rate behavior after the mid-1970s. Nominal interest rates were extremely volatile in the early 1980s, and on average remained unusually and surprisingly high. Rates finally fell significantly in the summer of 1982 and thereafter remained below their 1981 peaks. By the fourth quarter of 1982, short and long real rates were about 3 and 4 percent, respectively, based on survey information reporting short-term anticipated inflation of about 5.5 percent and long-term anticipated inflation of about 6.5 percent.

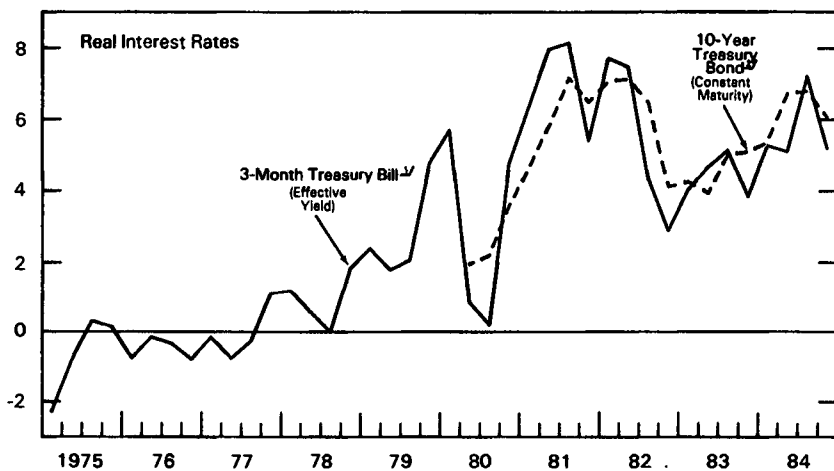
From the end of 1982 to mid-1984 short and long nominal interest rates rose by almost 3 percentage points; short and long real rates

Nominal and Real Interest Rates

Percent per annum



Percent per annum



¹ Nominal yield less anticipated rate of inflation (as measured by change in GNP implicit price deflator) over period to maturity from National Bureau of Economic Research/American Statistical Association *Economic Outlook Survey*.

² Nominal yield less anticipated rate of inflation (as measured by change in consumer price index) over period to maturity from *Decision-Makers' Poll* by Richard B. Hoey.

Sources: Department of the Treasury, Board of Governors of the Federal Reserve System, American Statistical Association, National Bureau of Economic Research, and Richard B. Hoey.

rose roughly 4 and 3 percentage points, respectively. But by the end of 1984 nominal rates had fallen about halfway back to their 1982-83 lows. Inflation anticipations seem to have declined still further in late 1984.

By historical standards, the persistently high level of real interest rates over the past few years is one of the most unusual features of the period. The initial increase seems associated with the change in monetary policy in October 1979. Since 1981 the continuing high level of real interest rates has been linked by many observers to the large Federal budget deficit. The ensuing controversy concerned the magnitude rather than the direction of the effect of the deficit on real interest rates. A number of studies have found the effect to be quite small, although some studies using different methods have found significant effects. In any event, as the economic recovery proceeded, neither the monetary explanation nor the budget deficit explanation of high real rates of interest was satisfactory as both explanations were inconsistent with the strength of investment during the recovery.

It appears that the high level of real interest rates is in large part attributable to the major change in business depreciation allowances for tax purposes enacted in 1981, which raised the real after-tax internal rate of return on new business investment. With a higher rate of return on new investment, it is worthwhile for businesses with little cash but good investment opportunities to borrow at higher interest rates to finance investment. It is also profitable for businesses with good cash flow to invest in real assets—business plant and equipment—rather than in financial assets or investments abroad. The substantial increase in the prospective rate of return on business investment has therefore pulled up the real rate of interest in the financial markets. If returns to investment had been lower, both investment and the real rate of interest in the financial markets would probably have been lower.

It is difficult to sort out the relative magnitudes of the effects on real interest rates of monetary restriction, large budget deficits, and high real rates of return on new business investment. It seems likely, however, that over the 1981-84 period as a whole, and certainly over the recovery years of 1983 and 1984, the effect flowing from a higher rate of return on new business investment has dominated. The evidence for that proposition is the coexistence of a high real rate of interest and great strength of business investment. If the monetary or budget deficit effects had dominated, then high interest rates for these reasons would have overwhelmed the new incentives to invest, making business investment relatively weak instead of relatively strong.

Economic policy has had important consequences for U.S. international trade, international financial flows, and the value of the dollar. After 1980, demand in international markets for dollar-denominated assets increased markedly, lifting the dollar's average 1984 value in terms of a weighted measure of other major currencies almost 60 percent above the dollar's 1980 average value. The dollar's impressive and continuing strength is consistent with high real rates of return on U.S. investment relative to returns abroad and lower U.S. inflation relative to inflation abroad.

As a result, the U.S. current account balance shifted from a small surplus of \$1.9 billion in 1980 to an estimated deficit of \$103.8 billion, or about 2.8 percent of GNP in 1984. Of the various components of the current account, an increase in the merchandise trade deficit made the largest contribution to the swing in the current account balance. These international economic developments are discussed in more detail in Chapter 3.

SPECIAL PROBLEMS

A number of special problems appeared over the past 4 years; perhaps the most serious were the near defaults on international debts, the strains in agriculture, and the instabilities of U.S. financial institutions. This third problem was partly the result of the first two. A discussion of the international debt problem is contained in Chapter 3; a brief discussion of the other two areas follows.

Agriculture

Over the 1970s, global economic growth, a depreciating dollar, changes in Soviet import policy, and several crop failures around the world all contributed to more than a fivefold increase in U.S. agricultural exports. These conditions together with inflation dramatically raised farm incomes and, with expectations of inflation and low real interest rates, set in motion huge investments to expand the productive capacity of U.S. farming and agribusiness. Total U.S. farm debt rose from \$49 billion to \$155 billion during the 1970s and the average price of farmland grew more than threefold. By the end of the 1970s, American agriculture had become a very capital-intensive, export-dependent sector of the U.S. economy, and the industry was much more sensitive to interest rates and exchange rates than it had been.

After 1981 the global recession depressed world agricultural trade, and the rising dollar made it increasingly difficult for U.S. agriculture to compete in world markets. The problem was exacerbated by the

Agriculture and Food Act of 1981, which established rigid price supports that tended to price U.S. commodities out of the world market.

The combined effect of these changes reduced the aggregate value of U.S. farm exports by 16.7 percent between 1981 and 1983. As a result of price support activities in the face of weak export demand and bumper crops in 1981 and 1982, burdensome inventories accumulated in the Commodity Credit Corporation and Farmer Owned Reserve. In January 1983 the Administration announced the payment-in-kind program to work off surplus inventories by inducing farmers to reduce their planted acreage. In the 1980s U.S. agricultural policies have in effect supported world market prices for the benefit of other exporting countries, which have been able to expand their farm exports. Farming and agribusiness in the United States have been left with substantial excess capacity as U.S. farm exports have become less competitive on world markets.

Adjustments within the agricultural sector and in U.S. farm policies have been difficult given the rapidity with which market conditions changed in the early 1980s. Farmers who had borrowed too much and paid too much for land in the late 1970s found themselves in difficulty. Because farmland prices have fallen between 1981 and 1984—by 7 percent on average nationally and by as much as 28 percent for some States—some highly leveraged farmers now find their loan principal larger than the market value of their land. As a result, the rate of farm failures has risen significantly. The failure rate of rural banks and agribusiness firms has also increased.

Despite record high income transfers to farmers through price and income support programs, at the end of 1983 American agriculture found itself with the lowest real net income in five decades. Returns can be expected to improve over time through a combination of improving market conditions and a reduction of excess capacity. Change in agriculture policies can also help by restoring the growth of agricultural exports.

Financial Institutions

The prolonged period of rising interest rates in the late 1970s, culminating in sustained high levels in the early 1980s, has been a key cause of the weakness of many depository institutions in recent years. For thrift institutions the problem arose principally from borrowing on a short-term basis to make longer term loans. As rates rose, the thrifts had to pay higher rates immediately to retain deposits, but they could only earn the higher yields as their longer term assets gradually matured and the funds were invested in higher yielding assets. For commercial banks the main problem has been losses from loan defaults or near defaults, especially on international loans, energy development loans, and agricultural loans.

The seriousness of the current difficulties should not be underestimated. From 1950 to 1979, 184 banks failed—an average of 6 per year. Between 1980 and 1984, 189 banks failed—an average of 38 per year. As for the savings and loan industry, from 1981 through 1984 the number of institutions insured by the Federal Savings and Loan Insurance Corporation fell by about 20 percent, largely because of mergers of weakened institutions with stronger ones.

In mid-1984 one of the Nation's largest banks had to be rescued by a multibillion dollar package arranged by the Federal regulatory agencies. A few weeks later, one of the Nation's largest savings and loan associations ran into trouble. Never before in the postwar period had the largest class of depository institutions suffered deposit "runs" requiring support from the Federal regulatory agencies.

Longstanding policy mechanisms have been used to deal with these problems. With only a few exceptions, runs on financial institutions have been avoided because public confidence in the financial system has been maintained through deposit insurance and the activities of the Federal regulatory agencies. The Federal Reserve has provided appropriate assistance through its discount window, and the regulatory agencies have closed weak institutions or arranged orderly mergers with stronger ones. Beyond these traditional measures, the Garn-St Germain Depository Institutions Act of 1982 has allowed the Federal Deposit Insurance Corporation and the Federal Savings and Loan Insurance Corporation to purchase net worth certificates from qualified institutions to maintain their regulatory net worth positions high enough for them to continue operating.

With continuing economic growth, declining inflation and interest rates, and time for adjustment, depository institutions are strengthening their financial positions. Structural problems in the industry are being addressed. The Garn-St Germain Act granted thrifts new powers to diversify their portfolios away from long-term, fixed-rate mortgages. In 1984 the Federal regulatory agencies began to take steps to require banks to raise more capital as a precaution against future difficulties, and the Administration and Federal regulatory agencies began a study to reassess Federal deposit insurance. Despite recent progress, however, many depository institutions do not as yet have the resources to deal with a sustained period of higher interest rates or the loan defaults that might occur if the United States and world economies were to weaken significantly.

The Common Element

It is worth reflecting on the fact that the 1970s rise and the 1980s fall of inflation are elements common to these special problems. Many decisions made during the late 1970s, based on the expectation of continuing inflation, turned sour in the early 1980s as inflation

fell. This pattern has recurred often throughout U.S. history. The specifics differ from one episode to another, but a feature common to all of them is that loans made to finance projects based on the assumption of continuing high inflation tend to go bad when inflation comes down.

POLICIES FOR SUSTAINED ECONOMIC GROWTH

What policies will best avoid the traumas of low growth, recession, and inflation? The subject of long-run economic growth is taken up first; issues concerning output and employment stability around the growth trend and those concerning price stability are discussed in the next section.

Almost every government spending program, every provision in the tax law, and every regulation has some effect on growth. Most of the effects are individually small, but their sum total is not. The purpose of this section is not to provide a detailed examination of all the effects of government on growth—an impossible task—but rather to sketch a framework for analyzing those effects. Some of the policy issues are illustrated through specific examples. Chapter 2 contains a general analysis of the costs of government expenditure and the effects of the tax system on economic efficiency.

GROWTH AS A GOAL

Growth of real GNP has long been a national policy goal. Clearly, although the welfare of a society depends very importantly on the size of its real GNP, economic welfare is not measured solely by the quantity of goods and services produced; a single-minded devotion to more output is entirely inappropriate.

A substantial part of the growth in the potential output of goods and services has historically been taken not in the form of greater actual output but in increased leisure. People work shorter hours and take longer vacations than their forebears. They stay in school longer and enjoy earlier retirement. They invest in themselves and accumulate knowledge in ways that do not show up as entries in statistical tables. These changes are as much a part of the economic growth process as is the growth of real GNP measured in the national income and product accounts.

Moreover, even with respect to the goods and services component of economic welfare, the goal is consumption and not simply production. Saving and investment are important parts of the growth process, but greater current saving and investment for a given level of GNP generally mean less current consumption. At least in the ab-

sence of borrowing, current consumption must be forgone to achieve higher future output and consumption.

Throughout U.S. history, choices between work and leisure and between present consumption and future consumption were determined almost entirely within a relatively unconstrained market economy. Over the past 50 years, however, these decisions have increasingly been influenced by government. Government itself has saved or dissaved, and has determined the extent to which its own expenditures are oriented toward consumption or investment. Taxes, subsidies, and regulations have affected substantially the choices made by individuals and firms. In general, government policies have tilted individual decisions toward more leisure and less work, and toward more consumption and less saving.

Few government policies were explicitly intended to reduce work or saving and investment, but policies introduced for other reasons have often had these effects. With growing recognition of the importance of economic growth, all government policies need to be reexamined to determine whether their original aims are still valid or can be met through revised policies that have less negative impact on growth.

Some of the most difficult policy issues arise from the need to reconcile economic growth and economic security for individuals. The growth process creates risks for individuals; growth requires that both labor and capital resources be continuously reallocated to their most efficient uses. Entrepreneurs take risks and are often rewarded. Over time the economy as a whole benefits as new industries replace old established industries and production is shifted from one region or nation to another. In this process some people lose jobs and some firms go bankrupt, changes that are often wrenching for those involved.

Individuals absorb many risks themselves, through their occupational choices, savings, insurance, and other mechanisms. But over the years the United States and other industrial countries have sought to soften the shock to individuals resulting from the growth process. Some of these policies, however, come at the cost of reduced growth.

Careful attention to incentive issues is central to understanding the relation between growth and security. Although compensating individuals for losses suffered through no fault of their own often seems fair and just, such government policies inevitably affect choices of occupations and activities. People will be more likely to engage in activities for which the probability of loss is rather high and prospective returns low if they know that unfortunate outcomes will bring compensation from government. Long-continuing compensation may pre-

vent resources from moving out of declining industries to growing ones. Public policy must weigh the value of compensating individuals for unfortunate outcomes after the fact against the incentive created for people to assume risky positions before the fact and to remain in uneconomic occupations and industries. It is simply not possible to have a systematic public policy of compensation without creating adverse incentive effects. Government policymakers have often underappreciated the importance of the disincentives sometimes inadvertently built into policy.

PRODUCTIVITY

Productivity is at the core of the growth process. By increasing output per hour worked, it is possible to enjoy both more consumption and more leisure. Despite its importance, productivity growth is incompletely understood at a quantitative level. Qualitatively, however, it is clear that both formal schooling and on-the-job training are important sources of increases in productivity, as are capital formation and technical change.

Historically, productivity increases have involved the long-term improvement of labor skills, increases in the capital available to each worker, and the reallocation of resources from lower valued to higher valued uses. The process of "capital deepening"—increasing the capital per worker—involves not only an increase in the quantity of capital but also an improved character or quality of capital. To be used efficiently, more sophisticated and complicated capital must be maintained and operated by a more highly skilled labor force; the type of capital that can be used productively in the United States, with its highly skilled labor force, is quite different from the type of capital that can be used productively in developing nations. To maximize economic growth, investment in human skills and physical capital must proceed in appropriate proportions.

Productivity is influenced by technical change. Invention and innovation improve both skills in the labor force and features of the capital with which the labor force works. The scientific aspect of technical change is obviously important, but so also is the success with which an economy moves laboratory discoveries into the production process.

Numerous public policies influence economic growth through their effects on saving, investment, and the degree to which innovators may be encouraged through patent and copyright protection. The latter is but one example within the broad topic of the definition and limitation of property rights and their effects on the creation and use of resources. Budgetary allocations to subsidize education and research are obviously relevant, as are tax policies that affect the oper-

ating costs of scientific, educational, and research institutions and the incentive for private individuals to make charitable gifts to them. The vigorously competitive and open environment in the United States has proven especially fertile to scientific and educational endeavors.

The productivity of the economy is related to the efficiency with which it allocates its resources. The United States has been particularly successful in permitting and encouraging resources to move to their highest valued uses. The Nation has seen enormous reallocations of resources; out of agriculture and into other industries; from the Northeast to the South and West; from older manufacturing industries into newer high-technology industries. Labor is highly mobile. Young people frequently move from one job to another and from one region to another, searching out their most productive and personally satisfying employments. Unfortunately, the efficiency with which government itself uses resources has often been neglected; some government expenditures appear in the national income and product accounts as output but are in fact largely waste.

A major issue concerns the government role in allocating resources. Government subsidies and regulatory constraints affect the allocation of resources in many parts of the economy. Some of these policies are constructive but others waste resources, distort the mix of production, and reduce incentives to allocate resources to their most efficient uses. The use of tariffs and quotas to protect domestic industries from foreign competition, and thereby to prevent or slow the transfer of resources out of the affected industries, has been controversial from the earliest days under the Constitution.

THE DETERMINANTS OF TOTAL GNP GROWTH

Fluctuations in the growth of GNP over periods of 5 or 10 years have been mostly attributable to changes in productivity growth, with the important exception of the Great Depression, when a large and long-maintained increase in unemployment depressed output. However, determinants of total output growth other than productivity are affected by public policy and so deserve a brief discussion.

Partitioning the growth of total real GNP into components reflecting the growth of output per hour worked and the growth of total labor hours provides a convenient analytical framework. The growth of total hours worked can be further partitioned into population growth, changes in the fraction of the working-age population that is in the labor force (the participation rate), changes in the percent of the labor force employed (the employment rate), and changes in average hours worked per employed member of the labor force.

Table 1-3 provides information structured according to this framework. To avoid complications arising from business cycle fluctua-

tions, the entries in the first two columns are calculated from one business cycle peak to another. The third column reports data from the 1981 cycle peak through 1984, and the fourth column reflects the Administration's projections for 1984-90.

TABLE 1-3.—*Accounting for growth in real GNP, 1948-90*
[Average annual percent change]

Item	1948 IV to 1981 III	1973 IV to 1981 III	1981 III to 1984 IV ¹	1984 IV to 1990 IV
GROWTH IN:				
(1) Civilian noninstitutional population aged 16 and over	1.5	1.8	1.2	.9
(2) PLUS: Civilian labor force participation rate .....	.2	.5	.4	.6
(3) EQUALS: Civilian labor force	1.8	2.4	1.6	1.6
(4) PLUS: Civilian employment rate	-.1	-.4	.1	.3
(5) EQUALS: Civilian employment	1.7	2.0	1.6	1.8
(6) PLUS: NFB Employment as a share of civilian employment .....	.1	.2	-.2	.6
(7) EQUALS: NFB employment	1.8	2.1	1.5	2.4
(8) PLUS: Average weekly hours (NFB)	-.4	-.6	.1	-.2
(9) EQUALS: Hours of all persons (NFB)	1.4	1.5	1.6	2.2
(10) PLUS: NFB output per hour (productivity)	2.0	.7	1.9	2.0
(11) EQUALS: NFB Output	3.4	2.2	3.5	4.2
(12) LESS: NFB output as a share of real GNP	-.1	-.2	.7	.3
(13) EQUALS: Real GNP	3.5	2.4	2.7	3.9

¹ Data for 1984 IV are preliminary.

Note.—NFB refers to nonfarm business sector.

Based on seasonally adjusted data.

Detail may not add to totals due to rounding.

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

Population Growth

The first row of Table 1-3 reports Bureau of the Census estimates of population growth over the periods indicated, together with the Census projection for 1984-90. Growth in the working-age population, of course, is an important determinant of the size of the labor force. As can be seen from the first and last columns of the table, population growth in the second half of the 1980s is projected at 0.9 percent per year compared with 1.5 percent per year over the 1948-81 period.

The Participation Rate

The participation rate, the fraction of the working-age population in the labor force, is determined by a variety of factors. Retirement decisions determine the labor force participation of older workers and decisions concerning the length of schooling determine the participation of young people. Over the past 15 years women have entered the labor force in large numbers, reflecting changes in attitudes toward work and home. Finally, some people despair of finding jobs and so cease their job search; these "discouraged workers" would

like jobs but, because they have ceased job search, are not counted in the labor force.

As shown in Table 1-3, the participation rate grew by 0.5 percent per year between 1973 and 1981 as large numbers of women entered the labor force. The projected 0.6 percent growth rate for 1984 to 1990 reflects both a projected continuation of rising female labor force participation and the movement of the baby-boom generation into older age groups that traditionally have a higher participation rate.

A wide variety of important and controversial public policy issues involve the participation rate. One is whether public policy should encourage, discourage, or remain neutral with respect to the choice of retirement age. Another concerns the effects of public policy on the decisions of young people to remain in school; while longer schooling keeps a person out of the labor force, thereby reducing the participation rate, it also improves labor skills, raising productivity growth.

Of special relevance to the debate over tax reform is the fact that lower marginal tax rates can be expected to increase labor force participation, especially of married women. There is substantial evidence that the labor force participation of these people is particularly sensitive to their after-tax wage rates.

Together, the growth of population and the growth of participation determine the growth of the labor force. Thus, row 3 in Table 1-3 is the sum of rows 1 and 2. The 1984-90 projection of 1.6 percent per year growth in the civilian labor force is slightly below the 1948-81 average of 1.8 percent and well below the 2.4 percent rate from 1973 to 1981.

The Employment Rate

The employment rate is the percent of the labor force employed, or 100 percent minus the unemployment rate. Numerous public policies affect the average employment rate over time. Income maintenance programs, including the unemployment insurance system, are known to be important. The higher the level of unemployment benefits compared with after-tax earnings available from employment, and the longer such benefits can be received, the lower the incentive to accept employment. This effect is offset to some degree by business taxes on firms to support the unemployment insurance system; these taxes are based in part on a firm's experience in laying off workers and so provide an incentive for firms to maintain employment stability. More complete experience-rating in assessing taxes on firms might lower the average unemployment rate, while maintaining the present insurance function for those who become involuntarily unemployed.

Lower average employment for reasons of job search does not necessarily mean lower national output. If longer periods of job search lead to more productive matching of employees and employers, then the net loss in output from higher average unemployment may be offset by greater productivity when people are employed. Public policy might be based on the view that there is no *prima facie* case that individuals tend to make wrong decisions with regard to job search. If this view is accepted, income maintenance programs should not provide incentives for unduly prolonging job search.

Another public policy that affects the average unemployment rate is the minimum wage—its level and coverage. It is not profitable for business firms to hire people whose productivity is below their wage, and in highly competitive markets businesses will not be able to hire such people. In the absence of a minimum wage, some of these low-skilled people would be voluntarily employed and would have an opportunity to enhance their job skills. The Administration's proposal to permit a youth employment opportunity wage in the summertime reflects these considerations.

Row 4 in Table 1-3 shows the growth in the employment rate for various past periods together with the Administration's projection for 1984-90. The increase in unemployment between 1973 and 1981 was sufficient to lower the employment rate by an average of 0.4 percent (*not* percentage point) per year. Under the Administration's economic projections, 1984-90 will see an increase averaging 0.3 percent per year. Rows 3 and 4 sum to row 5, the rate of growth of the number of people in civilian employment. The 1984-90 projection of 1.8 percent per year is slightly above the 1948-81 average of 1.7 percent per year.

(A technical note: To study productivity, information on the hours of work rather than just the number of people working is required. Reasonably accurate data on total hours worked are not available for the entire economy, but are available for the nonfarm business sector. Row 6 reports annual growth in nonfarm business employment as a share of total civilian employment. Row 7 reports annual employment growth in the nonfarm business economy. The 2.4 percent per year growth rate over the 1984-90 period is higher than that for the whole economy because the farm and government sectors are expected to grow relatively slowly.)

Average Hours Worked

As can be seen from row 8 in Table 1-3, average hours worked have declined at 0.4 percent over the postwar period, and the decline is projected to continue to 1990 at a 0.2 percent rate. Average hours can change for reasons other than the obvious ones such as longer vacations. For example, an influx of young workers, who often hold

part-time jobs, will reduce average hours for all workers taken together. Policy issues that arise in this context concern such matters as legislated premiums for overtime work and rules governing taxes on firms for unemployment and workers' compensation funds. These taxes, depending on their design, may encourage or discourage firms from hiring part-time employees.

Productivity

General considerations relating to productivity have already been discussed. Row 10 in Table 1-3 shows that the estimate of productivity change over the postwar period and the projection for 1984-90 are identical at 2.0 percent per year growth. In contrast, productivity growth averaged only 0.7 percent per year from 1973 to 1981.

Productivity growth estimates in row 10 apply to the nonfarm business economy. Row 12 shows the rate of change of the ratio of non-farm business output to real GNP; that ratio is projected to rise over 1984-90 as the farm and government sectors experience relatively low growth. Row 13 shows the rate of growth of total real GNP; the Administration's projection is for average growth of 3.9 percent per year for 1984-90.

THE IMPORTANCE OF PRICE STABILITY TO ECONOMIC GROWTH

The contribution of price stability to economic growth is important if behavior based on economic incentives is to direct resources reliably to their most efficient uses. In periods of general inflation, price signals are often distorted. High inflation is also usually more variable and less predictable than low inflation, which makes it more difficult to compare the profitability of a project investigated carefully last month with an alternative project investigated carefully this month, and to separate transitory and inconsequential changes in individual prices from fundamental changes. Inflation also tends to bias decisions toward short-run payoffs and consumption. Contractual income from some long-term investments is eroded by long-continuing inflation, while other investments yield great rewards because they happen to benefit from inflation. For all these reasons, inflation often causes allocative inefficiencies that in the aggregate reduce economic growth.

THE OUTLOOK FOR ECONOMIC GROWTH

Prospects for a long-term revival of economic growth in the United States are excellent. Growth in employment should continue. Productivity performance has already improved; as indicated by the 1.9 percent growth rate between the business cycle peak in the third quarter of 1981 and the fourth quarter of 1984. This 13-quarter period encompasses *both* the 1981-82 recession and the 1983-84 recovery, so

the higher productivity growth is not simply a feature of the recovery phase of the business cycle. By way of comparison, over the 13-quarter period following the cycle peak in the fourth quarter of 1973, productivity rose at an average rate of 1.4 percent per year.

Productivity performance higher than the 1984-90 projection is clearly possible. Reasons for optimism include the acquisition of skills by the baby-boom generation that entered the labor force in the 1970s, the high rate of business investment, a lower and more stable inflation rate, and a phasing out of some inefficient government programs and regulations. But there is also ample reason to be cautious. Federal expenditure as a share of GNP is now higher than in the 1970s, many potential regulatory reforms have yet to be made, and continuing progress on the budget deficit is necessary.

POLICIES FOR EMPLOYMENT AND PRICE LEVEL STABILITY

The Great Depression clearly demonstrated the paramount importance of stabilizing employment at a high level. The previous section on economic growth contained a brief discussion of how changes in public policy might contribute to a higher average level of employment than experienced over the past decade. The subject of this section is stability around the average level.

Macroeconomic policies to increase employment are often advocated on the grounds that they will increase long-term growth. It is certainly better, other things being equal, to reduce unemployment sooner rather than later, but unless the long-run average rate of unemployment can be continuously lowered, or productivity growth increased, a quick reduction of unemployment will have little effect on the long-run rate of growth. Indeed, some policies to reduce unemployment quickly may have adverse effects on long-run growth. For example, a public employment program might reduce short-run unemployment but at the same time reduce long-run productivity growth through the inefficiencies of such programs. Some argue that such a tradeoff is worthwhile, but certainly there should be no automatic assumption that every policy to reduce unemployment will increase long-term growth.

Even if feasible, it would not necessarily be desirable to eliminate all fluctuations in employment. Agricultural output and employment are inherently seasonal. Some unemployment is frictional: People quit their jobs and take time to look for better ones; firms discharge employees, who must then search for new jobs.

Because some unemployment is voluntary and desirable, and some unavoidable, it is difficult to assess the general significance of fluctuations in employment. Clearly, unemployment associated with reces-

sions leads to great distress for many. Avoiding such unemployment by avoiding the conditions that cause recessions is a major goal of public policy.

As with employment and output, seasonal fluctuations in prices are normal. But the distinction between stability of the general price level and stability of individual prices is most important. Stability of the general price level is fully consistent with constantly changing individual prices. These fluctuations in individual prices serve to reallocate the economy's resources as market demand and supply conditions change. Direct control of individual prices is not an appropriate strategy for stabilizing the general price level in a market economy because of the distortions and inefficiencies caused by such controls.

The most important part of the goal of price stability is not constancy of the general price level but predictability. Many feel cheated by unanticipated changes in the price level. Citizens who acted cautiously and conservatively by placing funds in traditionally safe investments, such as bonds and ordinary life insurance, find the real value of their savings eroded by unanticipated inflation. Conversely, unanticipated inflation may reward those who place their savings in risky and speculative investments or who assume heavy long-term debts at a fixed rate of interest.

Because unanticipated inflation upsets normal investment calculations, it tends to amplify fluctuations in output and employment and to misallocate resources across different sectors of the economy. Problems in the agricultural and financial sectors caused by the 1970s inflation and 1980s disinflation were discussed earlier in this chapter. The boom and bust cycle in economic activity has almost always been associated with instability in the general price level.

As a purely economic matter, there is little advantage to a fully predictable rate of inflation of zero as compared with a fully predictable moderate rate of inflation, once the economy has fully adjusted. But the converse proposition is also true; inflation of, say, 5 percent per year has no economic advantage compared to complete price stability. Moreover, accepting some inflation has the great disadvantage of promoting distrust of the government's commitment to maintain control over inflation. As a political matter, an inflation target other than zero is not entirely credible. If 5 percent inflation is acceptable, most would say, why not 6 percent, or 8 percent, or 10 percent inflation?

This question arises not only from doubts raised by historical experience but also because there may be short-run gains from pursuing inflationary policies. The initial effects of such policies include temporary increases in output and employment; the costly inflation comes later. Public reaction to inflation and insistence that inflation-

ary policies be changed may be one of the reasons why in the United States, and across the world, higher inflation has generally been less stable and less predictable. To avoid these instabilities the short-run inflationary bias must be resisted by building in a firm commitment to noninflationary policies. Reducing inflation and in time achieving full price stability—zero inflation—is a major goal of this Administration.

MONETARY POLICY

Long-continuing inflation is fundamentally a monetary phenomenon. Other things being equal, creating more money creates a higher general level of prices. As is the case with other economic relationships, the one between money growth and inflation is not precise. This is responsible for the prevalence of nonmonetary theories of inflation. These nonmonetary theories have a ring of plausibility to them, and they have often led to government policies to combat inflation that are totally ineffective, or worse, positively harmful.

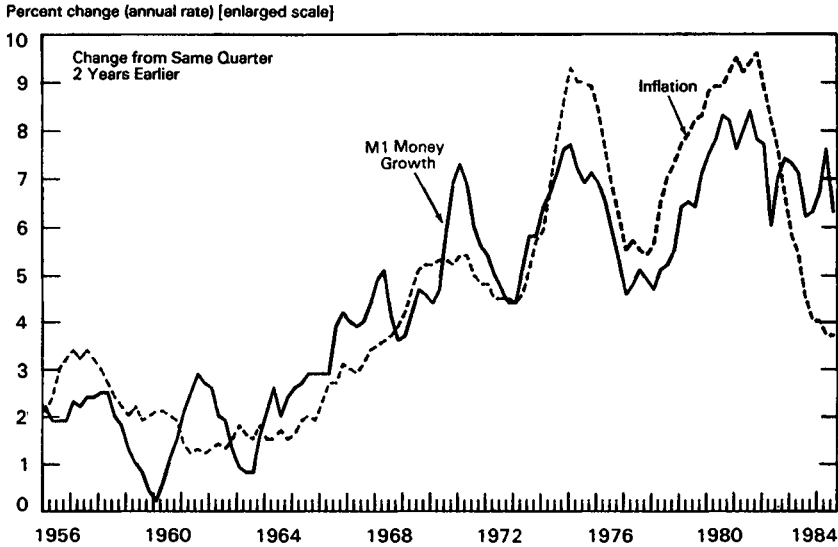
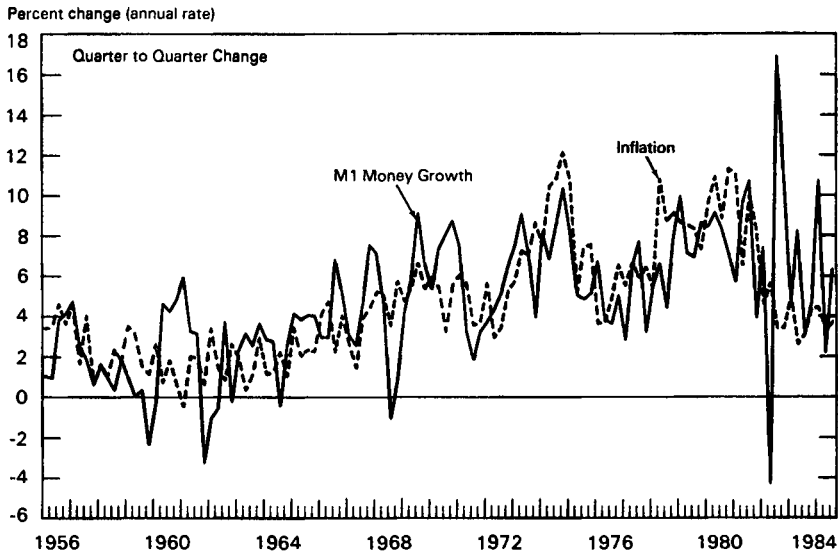
Many observers attributed the rise in inflation in 1973 and again in 1979 to the two oil price shocks. That view is fundamentally incorrect, although it is certainly true that the oil price shocks did provide further upward boosts to inflation in environments that were already marked by substantial inflationary pressures. The pattern of rising inflation was established before both of the oil price shocks. These shocks would have had much less impact on inflation had they occurred in an environment of market confidence in underlying price stability.

Chart 1-2 demonstrates both the looseness of the short-run relation between money growth and inflation and the strength of the underlying long-run relation. Based on studies indicating that the average lag between money growth and inflation has been about eight quarters, the top panel of the chart relates the inflation rate in a given quarter to the rate of growth of money (M1 definition) eight quarters earlier. Panel B of the chart relates the 2-year moving average rate of inflation to the 2-year moving average rate of money growth eight quarters earlier. More complex specifications yield somewhat closer relationships between money growth and inflation, but the basic proposition stands: quarter-by-quarter inflation is only loosely related to money growth, while inflation over longer intervals is more closely related to money growth.

There are good economic reasons for the rather loose short-run relation between money and prices. Expectations can be extremely important: the effect of a change in the money stock on demand and supply conditions in markets, and therefore on prices, depends on whether the money stock change is viewed as temporary and subject

Money Growth and Inflation

Money Growth Lagged 8 Quarters



Note.—Inflation measured by change in GNP implicit price deflator. Based on seasonally adjusted data.

Sources: Department of Commerce and Board of Governors of the Federal Reserve System.

to reversal, or the beginning of a new trend. Over the longer run, such effects are of much less relative importance as incorrect expectations are adjusted in the light of subsequent experience.

The short-run inflation rate can also be affected by numerous non-monetary conditions. But these conditions are ordinarily temporary and self-reversing, or at least not repetitive and cumulative. For example, a bad harvest might raise food prices and the general price level one year, but these effects are reversed when normal harvests resume.

Over the long run, inflation can be affected by economic growth. Because the economy uses money to transact the sale of goods and services, for a given rate of money growth, higher real GNP growth will yield a lower inflation rate. Historically, though, from one decade to another average real GNP growth in the United States has rarely varied by more than a few percentage points and can, therefore, account for only a small part of the variation in inflation.

Monetary policy is frequently judged by the behavior of interest rates rather than by the behavior of money growth. Central banks, including the Federal Reserve, have generally pursued monetary policy objectives through close control over interest rates in the short run. The tendency for central banks to follow this approach is reinforced by the fact that interest rate information is continuously available and most directly affects the behavior of market participants.

Data on the money stock, on the other hand, are available with a lag. More importantly, the aggregate money stock is relevant to individuals and firms only insofar as it has implications for economic conditions that directly affect them. Businesses, for example, are concerned with the prices of the goods they buy and sell, the wage rates they pay, and the interest rates they pay or receive. Although the aggregate money stock is of great relevance for variables of this kind, it is easily overlooked as an abstraction when compared with interest rates, which have great visibility and immediacy.

For these reasons, and others, policymakers and market participants have most often viewed monetary policy primarily in terms of control of, or influence over, interest rates. This view may lead to dangerous misinterpretations. Sometimes, rising interest rates reflect a restrictive monetary policy as the monetary authority reduces the supply of money in the short run. At other times, rising interest rates reflect a rising demand for funds in the private market with a steady or even increasing rate of money growth. The course of the economy is likely to be quite different when interest rates rise temporarily because of falling money growth, compared with its course when rates rise from growing private credit market demands.

Changes in inflation expectations have been particularly important over the past 20 years. After the fact, it became obvious that rising interest rates in the late 1960s reflected growing fears of inflation. Lenders increasingly insisted on higher interest rates to protect themselves from rising inflation, and borrowers were willing to pay these higher interest rates because they anticipated repaying loans in depreciated dollars. In 1967–68, 1972–73, and 1977–78, rising interest rates were accompanied by high money growth; monetary policy was inflationary rather than restrictive.

When inflation expectations fall, interest rates also fall. If money growth remains well controlled, declining interest rates reflect not an easier monetary policy but the success of disciplined monetary policy in reducing both actual and expected inflation. Under these conditions, if the central bank resists downward pressure on interest rates by reducing money growth, the outcome may be a recession.

Over the past two decades, professional and public understanding of the importance of controlling money growth, and of the dangers of focusing on interest rates, has grown. In January 1970 the Federal Reserve's main policymaking body, the Federal Open Market Committee, adopted a money growth target for the first time. In 1975 the Congress passed Joint Congressional Resolution 133 requiring the Federal Reserve to adopt and announce 1-year money growth targets. In October 1979 the Federal Reserve changed its policy procedures with the intent of controlling money growth more precisely.

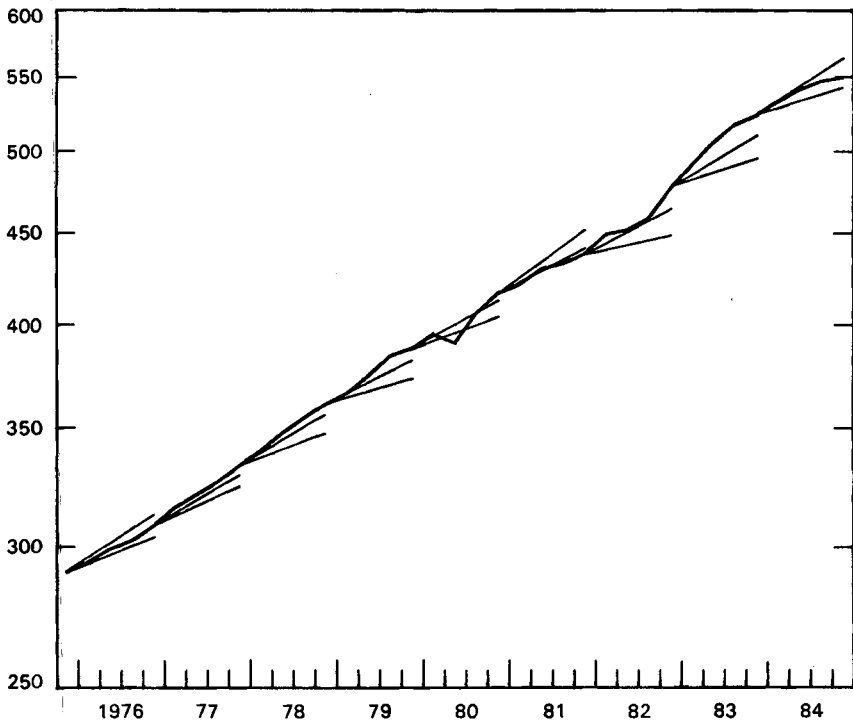
Chart 1–3 shows the M1 measure of the money stock over the period 1975–84. The announced target ranges for the four quarters of each year are also shown. (Not shown are other announced target ranges that in some cases modified or superseded the ranges shown in the chart.) Because M1 has been redefined, the target growth ranges in the chart have been adjusted to reflect the difference between M1 as now reported and as originally reported in February or March of the following year. However, differences between actual and targeted money growth shown in the chart are the same as the differences reported originally.

In the late 1970s money growth exceeded the announced target for 3 years in a row. These overruns were a consequence of the Federal Reserve's policy of maintaining a narrow short-run target range for the federal funds rate—a key interest rate in the money markets—and of failure to adjust the federal funds range up rapidly enough in the face of the upward pressures on interest rates that characterized the 1977–79 period. Although targeting the federal funds rate, or interest rates in general, has been advocated as a device to cushion interest rate pressures arising from temporary disturbances in the credit markets, the late-1970s experience, which is not unique, demon-

Chart 1-4

M1 Money Stock and Federal Reserve Target Ranges

Billions of dollars * (ratio scale)



* Averages of daily figures, seasonally adjusted.

Note. — Targets are fourth quarter to fourth quarter wedges as described in the text.

Sources: Federal Reserve and Council of Economic Advisers.

strates that this policy runs the risk of permitting excessive money growth and thereby contributing to inflation.

After the business cycle peak in July 1981, interest rates were generally declining. At that time the policy of cushioning downward interest rate pressures led to a decline in money growth. At the end of 1981 the money stock was below the target range announced at the beginning of the year.

The variability of money growth has led some observers to conclude that it is not technically possible for the Federal Reserve to control money growth accurately. That conclusion is incorrect; adjustments in the way reserve requirement regulations are written and in the way Federal Reserve open market operations are conducted

could achieve much more accurate money stock control. The real issues are different; they concern the effects on interest rates and the economy of adhering more closely to a money growth target. Although these matters are controversial, the position taken here is that adhering more closely to moderate money growth targets would increase rather than decrease the stability of interest rates and employment, and contribute very substantially to restoring and then maintaining price stability.

An additional feature of Chart 1-3 deserves mention. The Federal Reserve has defined the target growth range each year on a base equal to the actual level of the money stock in the fourth quarter of the previous year. For several years in a row in the late 1970s, above-target money growth one year was built into the next year's target. In 1981 below-target money growth was built into the target for 1982. If the base were the midpoint of a year's fourth-quarter target range, then differences between the actual money stock and the midpoint would not be built into the money growth target for the next year. "Base drift" would not occur.

In addition to M1, the Federal Reserve has announced targets for broader definitions of the money stock, M2 and M3, and usually for a bank credit or total credit measure as well. However, the evidence suggests that of the available monetary aggregates and credit measures, M1 is the most closely and reliably related to economic activity and inflation. The M1 target might best be regarded as primary and the others as supplemental.

Despite the fact that short-run changes in money growth have often inadvertently been poorly timed with respect to unpredictable fluctuations in the economy, monetary policy has been considered by many to be a valuable policy tool to stabilize output and employment. Activist use of monetary policy to stabilize employment, however, tended to be inflationary over the 1965-80 period. The reason is that higher money growth for a time must be offset by lower money growth at some other time. Otherwise, the average rate of money growth over time will rise, as will the long-run rate of inflation. Central banks, including the Federal Reserve, have usually found it much easier to increase the rate of money growth than to achieve the offsetting decrease at some later time.

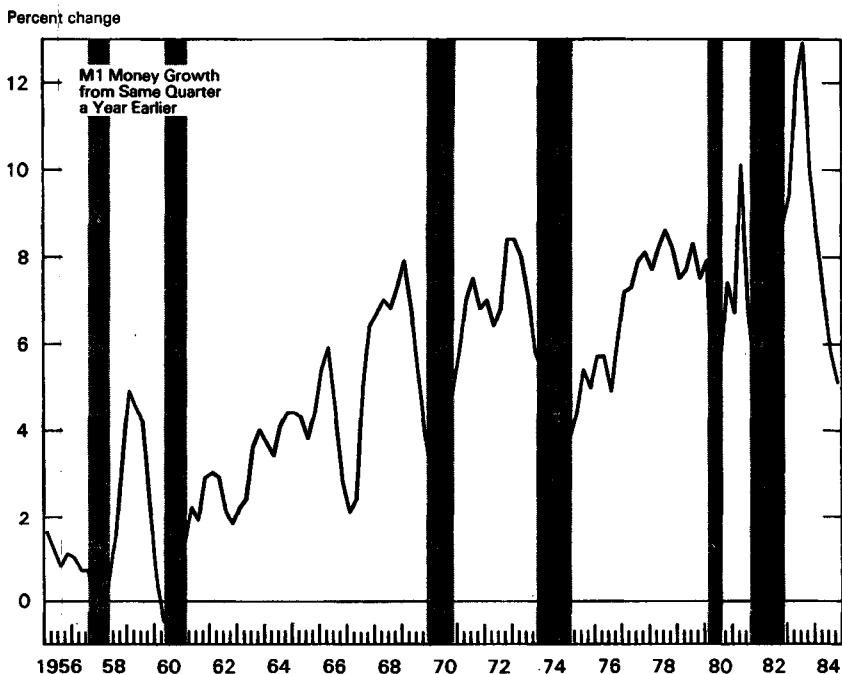
The discussion so far has concentrated on the relation of money growth to inflation. Fluctuations in money growth are also related to fluctuations in employment and output, although the reasons for this relation are less well understood.

It appears that *changes* in money growth, rather than the rate of growth itself, are correlated with the business cycle. Since 1907—the first year for which monthly money stock data are available—there

has never been a recession when money growth was rising. Historically, money growth has usually declined before the beginning of a recession, and the lower rate of money growth has most often extended into the recession. Less often, money growth has declined about the time a recession begins, and the lower growth has extended into the recession. Money growth has typically stabilized, or risen, before a recession has ended and a recovery begun. Chart 1-4, showing money growth from the same quarter a year earlier and shaded areas to indicate recessions, illustrates these relationships.

Chart 1-3

Money Growth and the Business Cycle



Note.—Shaded areas indicate recessions (peak to trough) as defined by the National Bureau of Economic Research.

Source: Board of Governors of the Federal Reserve System (except as noted).

Fluctuations in money growth have been related in part to the emphasis on interest rates in the conduct of monetary policy. When the economy is unexpectedly weak, and before economists' forecasts adjust to a changing business outlook, credit demands and interest rates tend to decline. If the monetary authority cushions the decline, then money growth falls. Under these circumstances, the decline in money growth is not appropriate; money growth should be maintained and interest rates permitted to fall more rapidly to provide support for a weakening economy. Similarly, if interest rates are held down in the face of unexpected strength in the economy, money growth may rise, contributing to the development of inflation. Steady money growth tends to act as an automatic stabilizer: interest rates rise automatically when the economy strengthens and fall when the economy weakens.

Once it has become clear that inflationary or recessionary pressures are developing, the monetary authority usually adjusts interest rates fairly aggressively, and money growth changes. But because of the lag in the effects of policy, a changed rate of money growth does not act quickly to slow inflation or to resist developing unemployment.

The importance of avoiding outbreaks of inflation in order to avoid subsequent recession is well illustrated by events since 1965. Rising rates of money growth in 1967-68, 1972-73, and 1977-78 were followed in each case by lower rates of money growth and recessions. If periods of lower money growth had not followed the periods of higher money growth, then the *average* rate of money growth and the average rate of inflation would have been higher than they actually were.

It has been emphasized that the relationships between money growth and inflation and between changes in money growth and the business cycle are not precise. To the extent that changes in these relationships can be reliably forecast, there may be reason to depart from previously announced money growth targets. From the evidence now available, the sharply higher money growth from mid-1982 to mid-1983 is a prime example of a case in which money growth far in excess of the target range did not re-ignite inflation. The case for monetary targeting, however, is not overthrown by this one episode in which abandoning targets worked well, especially given that M1 growth was below target as the recession developed in 1981. There is no reason to believe that the regularities exhibited in the charts in this section, regularities that also characterize U.S. experience before World War II and the experience of other countries, have broken down.

The fact that monetary regularities are not precise makes clear that there are unavoidable risks. What the record suggests is that more stable money growth will manage the risks better and reduce the chance that monetary policy will itself be a source of disturbance to the economy.

The present task is to complete the agenda of restoring full price stability. The Nation has just gone through a difficult period of adjustment to lower inflation—indeed, the adjustment is still incomplete. It is important that gains achieved in reducing inflation not be lost. Success will require permitting enough money growth to allow vigorous economic expansion, while at the same time maintaining downward pressure on the inflation rate to build confidence in the achievement of long-run price stability. To achieve these goals, the Administration supports a policy of gradually reducing the average rate of money growth over time and of stabilizing short-run money growth to the maximum extent possible.

FISCAL POLICY

Over the postwar period, until relatively recently, most economists were optimistic that fiscal policy, through a combination of automatic stabilizers and discretionary adjustments, could be used to dampen business cycle fluctuations. The automatic stabilizers have worked reasonably well to reduce the variability of disposable personal income, but discretionary policy adjustments have often been ill timed.

When the economy weakens, tax receipts fall and certain expenditures, such as those for unemployment benefits, rise. These automatic stabilizers do not require congressional action. Moreover, they do not upset private planning because their characteristics are known to private decisionmakers in advance.

The Bureau of Economic Analysis (BEA) has provided estimates of the cyclically adjusted Federal budget deficit on a national income and product accounts basis. Although any such estimates are subject to certain conceptual and estimation difficulties, BEA estimates provide a rough sense of the quantitative importance of the automatic stabilizers. For example, from the cycle peak in the third quarter of 1981 to the cycle trough in the fourth quarter of 1982, the total budget deficit rose by \$147.5 billion; BEA estimates that \$65.8 billion of the increase was attributable to the automatic stabilizers.

Beyond issues of forecast accuracy and policy lags, there is increasing doubt about the effectiveness of discretionary fiscal policy even if it could be changed in a timely fashion. Fiscal policy does not appear to have the large impacts on aggregate economic activity through demand side effects that were once thought to exist. Because con-

sumption behavior depends on households' average income, changes in individual income taxes for countercyclical purposes seem to have especially small effects. If taxpayers expect income tax changes to be temporary—and changes for countercyclical stabilization should be interpreted in a temporary context because recessions and booms are not permanent—then the tax changes are likely to have relatively little effect on consumption behavior.

Temporary changes in transfer payments seem to have little value for stabilization purposes, for the same reason that temporary tax changes have little value. The evidence suggests, however, that temporary changes in government purchases of goods and services may have somewhat greater, though still relatively small, effects on total GNP in the short run.

A problem with increasing government purchases for countercyclical purposes is that such increases run directly counter to the long-run goal of constraining government expenditure to reduce waste and promote growth. It often proves difficult to reverse spending increases—even those adopted initially as temporary. Proposals to increase expenditure for any purpose—including countercyclical stabilization—should be examined very carefully, for reasons discussed in Chapter 2 of this *Report*.

Finally, activist fiscal policy—whether on the spending or the tax side—can be upsetting to private decisionmaking. Changes in jobs, place of residence, and business investment in plant and equipment are based on long-term expectations and plans; frequent changes in government tax and spending policy make efficient decisions more difficult. Fiscal policy adjustments are often unpredictable, and this uncertainty complicates both business and consumer planning. Indeed, because business cycle fluctuations themselves have proven so difficult to forecast, government responses to business fluctuations are necessarily difficult to forecast. To avoid these problems, the purpose of fiscal policy changes should be long-run reform to improve efficiency and equity while establishing a stable and predictable fiscal framework.

THE OUTLOOK FOR 1985-90

Americans have every reason to look forward to continuing economic expansion. The base has been established: Inflation is down, interest rates are down, employment and output growth has been strong, productivity growth is up, and domestic business investment is strong. The major item of unfinished business is the establishment of long-run fiscal equilibrium, which requires a much lower budget deficit and assurance that the government expenditure share of GNP

does not continue to increase. Economic expansion will not be perfectly steady, as the past few quarters have illustrated once again, but the prospects for continuing growth are excellent.

Some observers, however, are already discussing the prospect for a new recession beginning in late 1985 or 1986. Policy mistakes can yield such a result, but there is no reason why such mistakes need occur. Activist policy, always subject to misreading of the data and forecast errors, is not required to avoid recession. What is required are sustainable, predictable, and noninflationary monetary and fiscal policies. If policy is not itself a source of disturbance, there is no reason to believe that a recession, when one finally occurs, need be anything other than a mild and temporary interruption of sustained economic expansion.

Many of those who predict another recession starting this year or next seem to do so from the view that a business expansion has a natural life, after which the economy will inevitably turn down. This view is probably wrong. If business expansions die of old age, the probability that a recession will begin rises as the expansion ages. In fact, the evidence suggests that the probability of the onset of a recession is only weakly related to the age of the expansion.

The economic process that has led to the termination of most expansions seems quite different from old age. Recessions, and especially the more recent recessions, have been associated with prior outbreaks of inflation. Imbalances arise during periods of rising inflation that make continuing expansion difficult or impossible. Public policy responses to rising inflation add downward pressure on output and employment. The business cycle peaks in December 1969, November 1973, January 1980, and July 1981 are all quite clearly related to prior outbreaks of inflation and subsequent declines in the rate of money growth.

MONETARY AND FISCAL POLICY ASSUMPTIONS

In July 1984, in its Midyear Report to Congress, the Federal Reserve announced a tentative M1 growth target range for 1985 of 4 to 7 percent. The Federal Reserve also announced tentative targets for M2 and M3, and an "associated range" for the growth of nonfinancial debt.

By reducing the upper side of the M1 range from 8 percent for 1984 to 7 percent for 1985, the Federal Reserve makes clear its intention to avoid excessive money growth. Bringing down the rate of money growth over time is essential to restoring full price stability. Also, the reduction in the width of the target range from 4 percentage points in 1984 to 3 percentage points in 1985 gives the market a clearer definition of monetary policy objectives.

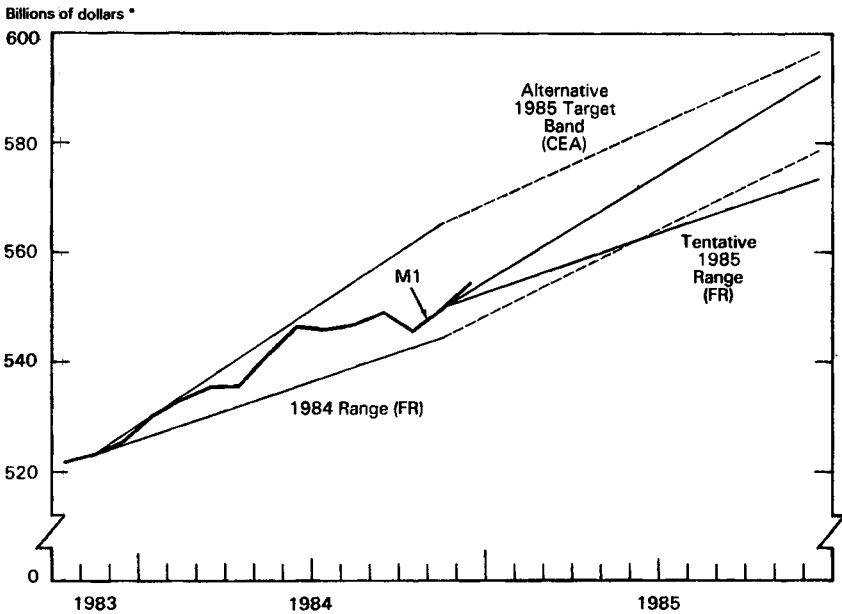
An issue is the base upon which the 1985 M1 growth target is to be calculated. Historically, the money growth targets for a given year have been calculated from a base equal to the average level of the money stock in the fourth quarter of the previous year. This practice has permitted base drift, as discussed in connection with Chart 1-3, and also leads to revisions in the target path with every revision of the M1 data for the fourth quarter of the year. Of course, the target growth ranges could be adjusted to offset base drift and data revisions, but the problem with such an approach is that the announced ranges might vary from one year to the next in a way that would confuse the public. The money growth target is a statement of policy that should not be blurred by the vagaries of short-run money growth.

A second issue raised by the Federal Reserve's traditional method of defining the base for the money growth targets is that on occasion, as in early 1982, the money stock has started off a new year substantially above or below the announced target range, raising uncertainties in the financial markets as to whether and how quickly the Federal Reserve might bring M1 back into its range. Both of these issues could be resolved satisfactorily by defining the fourth quarter base as the midpoint of that year's target range rather than as the actual fourth quarter level of the money stock. The Federal Reserve's tentative 1985 target range of 4 to 7 percent growth of M1 could then be restated as a band around a central target of $5\frac{1}{2}$ percent growth—a rate halfway between 4 and 7 percent growth. Under this interpretation, the target for 1985 would be to keep M1 within the dashed band shown in Chart 1-5 instead of within the wedge defined by the solid lines in the chart.

Growth of M1 within the dashed band of Chart 1-5 is expected to be consistent with the Administration's economic assumptions. In the postwar period the income velocity of M1—the ratio of nominal GNP to M1—has historically increased at an average rate of about 3 percent per year, although with substantial variability around that average. Abstracting from the variability by averaging over 2 years, the Administration expects nominal GNP growth to average about 8.9 percent per year over 1984 and 1985. If M1 in the fourth quarter of 1985 is at the center of the dashed band in Chart 1-5, then M1 growth will average $5\frac{3}{4}$ percent over 1984 and 1985, yielding annual velocity growth slightly above 3 percent. Beyond 1985 the Administration's economic assumptions are based on the view that monetary policy should maintain steady money growth at a rate that declines gradually over time.

As emphasized earlier in this chapter and in Chapter 2, the fiscal policy goals for 1985 are to establish a sound fiscal framework for

Alternative M1 Target Ranges for 1985



* Averages of daily figures; seasonally adjusted.

Sources: Federal Reserve (FR) and Council of Economic Advisers (CEA).

the long run by reducing the growth of Federal expenditure and the level of the budget deficit, and by reforming the tax system to foster long-run economic growth.

The Administration's budget proposals provide for a phased reduction of expenditure from the current services baseline. The proposed reduction in the growth of Federal purchases of goods and services is spread over 3 years, starting in fiscal 1986, providing considerable time for the private sector to adjust. Moreover, total Federal purchases will continue to grow, albeit at a slower rate than the baseline current services projection.

Finally, two points deserve mention. First, private sector activity depends importantly on expectations concerning economic policy. Clearly, the sooner fiscal policy changes are enacted, the smaller will be any effect on economic activity from uncertainty over the actions

to be taken. Second, changes in fiscal policy might have significant immediate effects on interest rates; cushioning those effects through monetary policy actions might be counterproductive. Rates may fall due to the resolution of the fiscal uncertainties and the expectation of lower inflation. A monetary policy directed toward stable money growth will ensure that interest rates can adjust readily to changed market conditions.

THE OUTLOOK FOR 1985

The Full Employment and Balanced Growth Act of 1978 requires that the *Economic Report of the President*, together with the *Annual Report of the Council of Economic Advisers*, include an Investment Policy Report and review of progress in achieving the national economic goals specified in the Act.

Investment issues are discussed in a wide range of contexts in this *Annual Report*. The role of high investment in the 1983–84 recovery is discussed earlier in this chapter, as are the economic conditions that contributed to strong investment and the relation of investment to productivity growth. Chapter 2 contains a discussion of the relationship between proposals for revising the tax laws and investment issues. International aspects of U.S. investment are examined in Chapter 3; these include the capital inflow from abroad and its impact on U.S. capital formation. Chapter 6 contains an analysis of how corporate takeovers, mergers, and acquisitions can promote allocation of capital to more productive uses.

The Administration's economic assumptions included in Tables 1–4 and 1–5 show substantial progress toward achieving the goals specified in the Act. Table 1–4 reports the major features of the Administration's 1985 economic assumptions. The expected 4 percent rise in real GNP over the four quarters of the year is slightly higher than the 3.7 percent in the third year of the typical recovery. Labor productivity showed little growth over the second half of 1984 but is expected to grow by 1.7 percent over the four quarters of 1985. Employment growth of 2.3 million persons is projected for 1985, compared with 3.5 million in 1984, leading to a decline in the unemployment rate over 1985.

The inflation outlook for 1985 is good. With moderate expansion in the money aggregates and continuing real growth, the inflation rate, as measured by the GNP deflator, is expected to average 4.3 percent over the four quarters of 1985. Hourly compensation is projected to grow at about 5 percent. Unit labor costs are expected to increase by about 3.5 percent. Business profits should show moderate growth over the year.

TABLE 1-4.—*Economic outlook for 1985*

Item	1984 ¹	1985 forecast
Percent change (fourth quarter to fourth quarter):		
Real gross national product.....	5.6	4.0
Personal consumption expenditures	4.2	4.3
Nonresidential fixed investment	16.6	6.8
Residential investment	3.5	1.7
Federal purchases of goods and services.....	14.2	2.2
State and local purchases of goods and services.....	3.5	2.7
GNP implicit price deflator	3.5	4.3
Compensation per hour ²	4.2	5.0
Output per hour ²	2.2	1.7
Level in fourth quarter: ³		
Unemployment rate (percent) ⁴	7.1	6.9
Housing starts (millions of units, annual rate).....	1.6	1.7

¹ Preliminary.² Nonfarm business, all persons.³ Seasonally adjusted.⁴ Unemployed as percent of labor force including resident Armed Forces.

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.

Supported by continuing growth in real disposable income, personal consumption expenditures are expected to increase 4.3 percent this year compared with 4.2 percent in 1984. Residential construction activity is expected to be fairly strong with housing starts of about 1.7 million units. Business fixed investment is expected to continue to grow faster than GNP. As a result, real investment as a share of GNP should continue at record levels next year.

Projected growth in real Federal purchases over the four quarters of 1985 is low due to assumed cuts in purchases in the fourth quarter of 1985 (the first quarter of fiscal 1986). State and local purchases are expected to grow at a slower rate in 1985 than in 1984 in order to maintain a balance with revenues. Real net exports of goods and services are expected to increase in 1985; however, the trade balance is projected to remain in deficit.

THE OUTLOOK FOR 1986-90

Table 1-5 reports the Administration's economic assumptions for selected economic indicators for 1986-90. These economic assumptions reflect projected trends and should not be interpreted as year-to-year forecasts. Table 1-3, discussed earlier in the section on economic growth reports the Administration's projection of the supply side of the economy in a consistent growth accounting framework.

The three sections of this chapter have discussed economic performance, principles, and prospects. Principles are the most important. Without them, the reasons the U.S. economy has performed as

TABLE 1-5.—*Administration economic assumptions, 1985-90*

[Calendar years]

Item	1985	1986	1987	1988	1989	1990
	Level					
Employment (millions) ¹	109.1	111.3	113.5	115.8	117.7	119.4
Unemployment rate (percent) ²	7.0	6.9	6.6	6.3	6.1	5.8
	Percent change					
Consumer prices ³	4.1	4.3	4.2	3.9	3.6	3.3
Real GNP.....	3.7	4.0	4.0	4.0	3.9	3.6
Real compensation per hour ⁴.....	.3	1.3	1.8	2.7	2.9	3.1
Output per hour ⁴	1.5	1.6	1.7	1.8	2.2	2.4

¹ Employment series includes resident Armed Forces.² Unemployed as percent of labor force. See footnote 1.³ For urban wage earners and clerical workers⁴ Nonfarm business, all persons.

Source: Council of Economic Advisers.

it has cannot be understood. Without policy principles, the prospects for the future are uncertain because sustained public support for good economic policy depends on public understanding. The performance of the U.S. economy over the past 2 years suggests that the Administration's policies are beginning to pay off. A continuing commitment to these policies can produce strong and sustained economic growth.

CHAPTER 2

The Federal Budget and the Economy

CONTINUED GROWTH OF THE FEDERAL GOVERNMENT may be the most serious problem facing the American economy. The growth of Federal spending and the debt are the most visible manifestations of this problem. The first is a longstanding condition; Federal expenditure has generally increased relative to gross national product (GNP) for more than 50 years. The second condition is more recent; after declining for most of the postwar period, the outstanding Federal debt as a share of GNP has increased sharply in the past 5 years. These conditions are closely related. Reducing the growth of Federal spending would reduce both the spending and debt shares. Increasing taxes would not reduce the spending share and would reduce the debt share only if spending were also restrained relative to the tax increase.

Table 2-1 summarizes the long-term trends in the relationship of Federal expenditure, receipts, and borrowing to GNP. The Federal expenditure share of GNP has increased each decade since 1929 and, unless the near-term growth is reduced substantially, the expenditure share will also increase in this decade. Almost all the growth in the expenditure share since 1949 reflects the increase in Federal spending for nondefense programs. The receipts share increased rapidly through 1959 and has been roughly constant, except for cyclical variations, since that time. Federal borrowing as a share of GNP varied within a narrow range, except during World War II and recessions, until the past several years. The ratio of the outstanding debt to GNP increased sharply during the Great Depression and World War II, declined substantially through the 1970s, and has since increased sharply.

This chapter describes the primary relationships between the Federal budget and the U.S. economy. These relationships operate in both directions. Changes in economic conditions affect the budget for a given set of fiscal policies and they affect the policies selected. Changes in the budget also affect the economy, in ways that depend critically on the type of expenditure and the detailed characteristics of the tax code. For any meaningful evaluation of the effects of the Federal budget on the economy, fiscal policy should be defined in

terms of the levels of government services, the eligibility conditions and payment rates for transfer programs, and the statutory tax rates on private activity. The first section of this chapter addresses the effects of Federal expenditure and the deficit. The second addresses the effects of the major types of Federal taxes. The concluding section discusses several proposals for change in budget concepts, the budget process, and the fiscal authority.

TABLE 2-1.—*Federal expenditures, receipts, and borrowing as a share of GNP, selected years, 1929-84*

(Percent of GNP)

Calendar year	Expenditures			Receipts	Borrowing	
	Total	Defense ¹	Other		Deficit	Debt ²
1929	2.5	(*)	(*)	3.7	-1.2	16.1
1939	9.8	1.4	8.5	7.4	2.4	42.8
1949	16.0	5.1	10.9	15.0	1.0	75.5
1959	18.6	9.3	9.3	18.4	.2	42.8
1969	20.0	8.1	11.9	20.9	-.9	23.9
1979	21.1	4.6	16.5	20.4	.7	21.6
1984 ⁴	24.0	6.0	18.0	19.2	4.8	30.2

¹ Purchases of goods and services.

² Federal debt held by private investors, end of June.

³ Not available.

⁴ Preliminary estimates.

Note.—Expenditures, receipts, and the deficit are on a national income and product accounts basis.

Sources: Department of Commerce (Bureau of Economic Analysis) and Department of the Treasury.

MAJOR CURRENT FISCAL ISSUES

The Federal Government, like all other institutions, faces two long-run constraints: Expenditure and the outstanding debt cannot grow indefinitely relative to potential receipts. The Federal Government differs from other institutions in two major ways. First, because of its size it has a major impact on private incentives and, therefore, the level and allocation of economic activity. Second, the Federal Government has a monopoly on the right to inflate its nominal receipts by creating money.

Federal expenditure must be financed by tax receipts. The substitution of borrowing for current tax receipts only defers the inevitable—additional taxation. An increase in the expenditure share, moreover, should face an increasingly stringent test, because the cost of additional Federal expenditure increases rapidly with the level and variance of marginal tax rates.

An increase in the debt share may be justified if Federal expenditure is temporarily high or receipts are temporarily low, in order to reduce the variation of tax rates over time. If Federal expenditure ex-

cluding interest payments grows proportionately with GNP, however, an increase in the debt share also requires an increase in future average tax rates to finance the increased future interest payments. An increase in the debt share, thus, must be financed by some combination of reducing the growth of noninterest expenditures below the growth of GNP, by higher future tax rates, or by inflation. Federal borrowing, in summary, is ultimately limited by the same conditions that limit Federal expenditure.

The current deficit is a crude measure of the present value of the amount by which future noninterest expenditures must be reduced or future tax receipts increased. The correct measure is the increase in the real market value of the net debt held by private investors. This requires adjusting the reported deficit for the differences between par and market value of the publicly held Federal debt, the loan portfolio, and other Federal financial assets. For many years, these adjustments substantially offset reported deficits, which is one reason why the reported deficit has provided little useful information about either Federal fiscal conditions or its effects on the economy. In recent years, however, these adjustments still leave a substantial increase in the real net debt.

In the absence of a change in fiscal policy, the prospective Federal deficits, however measured, are clearly too large. This conclusion is based less on the short-run effects of the deficit on the economy than on the effects of the deficit on the Federal budget. Many expected short-run effects of large Federal deficits on the economy have not occurred. Deficits were expected to increase inflation; in fact, inflation has been reduced by about two-thirds since 1980. Deficits were expected to increase interest rates; in fact, short-term interest rates are now less than one-half their peak levels in 1981. Deficits were expected to lead to weak investment and a weak recovery; in fact both real business investment and real GNP growth in the current recovery have been stronger than in any prior peacetime recovery. These developments do not indicate that the deficit had no effect, only that other conditions dominated. One important economic effect of fiscal policy in this period appears to have been the large increase in the trade deficit, but the magnitude of this effect was not widely anticipated. Given the longstanding concern about the Federal deficit, the short-run effects of the deficit on the economy have been surprisingly difficult to estimate.

Whatever the effects on the economy, the effects of the deficit on the Federal budget are clear: Federal borrowing increases future interest payments that must be financed by either reducing future noninterest expenditures or increasing taxes. The first priority of near-term fiscal policy should be to stabilize the ratio of outstanding Fed-

eral debt to GNP; the alternative is either a progressive reduction in the noninterest expenditure share of GNP or a progressive increase in tax rates. Only when this ratio is stabilized will the country have the luxury of addressing whether a further reduction in Federal borrowing would be desirable to increase net saving and investment.

This goal can be accomplished by either reduced growth of expenditure or by increased tax receipts. Reducing the growth of total Federal expenditure may require a substantial reduction in expenditure for some programs and the termination of others. Economic analysis does not provide a sufficient basis to make this choice. The decision to reduce expenditure or increase taxes is fundamentally a political choice. If the American people prefer that Federal expenditure be restrained to about 20 percent of GNP, no increase in taxes is necessary; if they prefer the current share of about 24 percent, a substantial increase in tax receipts is necessary at some time.

If constraining the growth of Federal expenditure is important, reducing Federal borrowing is urgent. The President has articulated a clear strategy to meet both of these objectives:

1. Maintain economic growth with declining inflation.
2. Reduce the growth of noninterest expenditure, to a rate below the growth of the economy, until a level is reached that is broadly supported by the American people.
3. Broaden the tax base to permit a further reduction in tax rates.
4. *Only as a last resort*, increase tax revenues if necessary to finance the level of government that is broadly supported.

This year will provide the critical test of whether the Congress prefers to restrain spending or increase taxes. The next election will provide the first test of whether that choice is supported by the American people.

EFFECTS OF THE ECONOMY ON THE FEDERAL BUDGET

The economy influences the Federal budget through two processes. Changes in real income, inflation, and interest rates affect both Federal spending and receipts without any change in current fiscal policy. Estimates of these effects are prepared as part of the budget process, and the current estimates are summarized below. Changes in economic conditions also affect the demand for Federal spending. For example, an increase in real income reduces government outlays, increases receipts, and reduces the deficit by the sum of these two effects. An increase in real income, however, may also increase the demand for new or current Federal services and transfers, so the net effect of higher real income may lead to higher Federal expenditure.

Economic cycles also affect the budget. Over the postwar period, business cycles have induced changes in expenditures and receipts

that typically have a reinforcing effect on the change in the budget deficit. For example, the cyclical effect of the downturn that began in the third quarter of 1981 is estimated to have increased expenditures by about \$12 billion at an annual rate and reduced receipts by about \$54 billion at the trough in the fourth quarter of 1982. As a result of these estimated cyclical effects on expenditures and receipts, the deficit was increased by about \$66 billion at an annual rate in the trough quarter. Of course, cyclical effects that increase deficits during contractions in economic activity can be expected to reduce deficits in the ensuing economic expansion.

Table 2-2 shows the estimated effects on outlays, receipts, and the deficit from changes in real GNP growth, inflation, the unemployment rate, and interest rates, assuming each change occurs beginning January 1986. The table shows the independent effect on the budget from a change in each variable; of course, a change in one would normally be associated with changes in the others.

TABLE 2-2.—Sensitivity of the budget to changes in economic conditions, fiscal 1986 and 1987 ¹
(Billions of dollars)

Item	Fiscal year	
	1986	1987
1 percentage point reduction in real GNP growth:		
Change in outlays	0.2	1.1
Change in receipts	-3.4	-13.6
Change in deficit	3.6	14.7
1 percentage point reduction in inflation:		
Change in outlays	0	-1.5
Change in receipts	-3.5	-13.3
Change in deficit	3.5	11.8
1 percentage point higher unemployment rate:		
Change in outlays	2.8	4.4
Change in receipts	0	0
Change in deficit	2.8	4.4
1 percentage point increase in interest rates:		
Change in outlays	3.3	9.7
Change in receipts .....	.5	1.1
Change in deficit	2.8	8.6

¹ Change assumed to begin in January 1986.

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

Clearly, changes in real growth and inflation can have large effects on outlays, receipts, and the deficit without any change in policy. Policy can, however, affect the sensitivity of the budget to economic conditions. For example, the indexation of individual income tax brackets reduces the sensitivity of receipts to changes in the inflation rate. A greater proportion of outlays are also now indexed. As a result, the budget deficit is now much less sensitive to a change in the inflation rate.

Economic conditions also affect the choice of fiscal policies, and these effects may augment or offset the effect of these conditions on the budget, given current policies. A recent study of the major determinants of the Federal expenditure share of GNP in the years since World War II provides a basis for estimating these combined effects. Almost all the variation in the expenditure share during this period can be attributed to three conditions—the level of real GNP per capita, the unemployment rate, and the number of armed forces overseas. These conditions, of course, also reflect the effects of many other conditions with which they are related. Still other conditions affect the composition of Federal expenditure. The complex interaction of policy decisions and economic conditions that leads to total Federal expenditure, however, can be summarized by this simple relationship.

The major conclusion of this study is that, after controlling for cyclical conditions and the deployment of armed forces, the demand for Federal expenditures, *as revealed by the political processes*, has increased faster than the increase in GNP. This effect would lead to a continued increase in the Federal expenditure share of GNP unless there is a reduced popular demand for Federal services and transfers, a change in the political processes, or a constitutional restraint on Federal expenditure. It is not clear how much this relation reflects popular preferences or a bias in political processes. In any case, these preferences and processes are not inexorable.

Another recent study has estimated the major determinants of the tax receipt share of GNP. The major conclusion of this study is that the historical increase in the share is best explained by an independent increase in the amount of taxable activities, the most important of which are reflected by the increase in female labor force participation and the decline in the relative number of the self-employed. In the short run, the tax receipt share of GNP appears to be determined more by the supply of taxable activity than by the demand for governmental expenditure.

These studies suggest that the government expenditure and tax receipt share of GNP in the short run are determined by fundamentally different conditions; the deficit share is determined by the differences in these conditions. Over time, the present value of government expenditure is limited to the present value of tax receipts, but it is less clear what limits the level of the deficit in the short run.

EFFECTS OF THE FEDERAL BUDGET ON THE ECONOMY

For several decades, the Federal budget has been evaluated on the basis of its effects on total demand, the allocation of resources, and the distribution of benefits and taxes among income classes. Differ-

ent criteria were usually applied to evaluate each effect. For several reasons, this approach is probably not as valuable as was once believed.

Changes in Federal expenditure, tax receipts, and the deficit appear to have little effect on total demand, as measured by nominal GNP, except in times of war. The primary effects of the Federal budget on the economy appear to operate through the "supply side" of the economy by affecting incentives to work, save, and invest, although this conclusion is controversial.

A distinction between the allocative and distributive effects of the Federal budget continues to be valuable, but it is not clear that these effects should be evaluated by different criteria. A good case can be made that changes in Federal services and transfer payments should be judged by the same standard, that is, whether the sum of the value to the direct beneficiaries plus the value to other taxpayers is higher or lower than the additional cost to the economy. Any other criterion for evaluating distributive effects seems inherently arbitrary.

The effects of the Federal budget on the economy operate through specific Federal expenditure programs and the detailed provisions of the tax code. These elements of fiscal policy affect the behavior of households, businesses, other private institutions, and State and local governments in varied ways. For this reason, changes in the budget totals provide little useful information about the effects of the budget on the economy.

Changing one component of the budget, in turn, has quite different effects depending on how other components are changed. An increase in government purchases, for example, must be offset by an equal reduction in other expenditures, an increase in tax receipts, or an increase in the deficit; the net effect on the economy depends on how much each of these other components is changed. An evaluation of the effects of changes in one part of the budget, thus, must specify the amounts by which other parts of the budget are also changed.

Cost of Government Spending

Government purchases of goods and services and transfers cost the economy a good bit more than the direct increase in the budget. The cost of additional government activities is the sum of the increase in expenditure, the additional cost of tax compliance, and the additional cost from the misallocation of private activities that accompanies the expenditure and the taxes needed to pay for it.

One study estimates that the average private compliance cost of Federal and State personal income taxes is 5 to 7 percent of the revenue they raise. Total compliance costs also include government enforcement and the private compliance cost of other types of taxes. The additional compliance cost attributable to an increase in tax

receipts is likely to be lower than the average cost but is probably still substantial.

A change in government expenditure and tax rates also leads to a change in the allocation of private activity. For example, an increase in unemployment compensation appears to increase the unemployment rate, and an increase in social security benefits may lead to earlier retirement. Similarly, an increase in personal income tax rates appears to reduce employment, and an increase in the effective tax rate on the income from investment reduces new investment. The economic literature uses the term "marginal excess burden" to describe the additional costs of misallocation of resources per additional dollar of expenditure and tax receipts. This burden differs by the type of expenditure and tax and increases sharply as a function of marginal tax rates. Several recent studies provide similar estimates of the magnitude of this marginal excess burden as a function of the effective marginal tax rate and the responsiveness of the labor supply to after-tax wage rates.

Table 2-3 summarizes estimates of the allocative costs of different types of government expenditure. Most recent studies of labor supply are more consistent with a moderate response of the labor supply to after-tax wages. These estimates are based on the range of the combined Federal, State, and local marginal tax rates during the past decade. The implications of these estimates are:

- The cost of additional government services is probably around 1.43 times the additional budget cost, plus the additional cost of tax compliance.
- The cost of additional government transfer payments is probably around 1.57 times the additional budget cost, plus the additional cost of tax compliance. Transfer payments are more "expensive" than services because they reduce labor supply and saving.
- These estimates increase sharply with the responsiveness of the labor supply to after-tax wage rates and with the effective marginal tax rate.

The primary policy implication is that government services and transfer payments are desirable only if their value is substantially higher than their budget cost. Government activities that fail this test should be eliminated or scaled back.

What limits the relative size of government? As the above estimates indicate, the cost of government expenditure increases as the responsiveness of labor to its after-tax return increases. This suggests that the size of government may be constrained by the extent to which taxable activity is a function of tax rates; for example, income earners may change location to reduce their tax burden. A centralization of government finance, for example, such as from local govern-

TABLE 2-3.—*Allocative cost of government expenditure*
[Allocative cost per dollar]

Item	Responsiveness of labor supply	
	Zero	Moderate
<u>Goods and services</u>		
Marginal tax rate		
43 percent.....	\$0.07	\$0.43
46 percent.....	.09	.53
<u>Transfer payments</u>		
Marginal tax rate		
43 percent.....	.21	.57
46 percent.....	.24	.72

Source: Charles Stuart, *American Economic Review*, June 1984.

ments to the State or from States to the Federal Government, diminishes the opportunity to avoid taxation by moving, and therefore is likely to increase the combined size of the government sector.

The cost of government expenditure is also a function of the marginal tax rate. The relative size of government, in turn, may be a function of this cost. This suggests that a broad-base, low-rate tax system is more likely to lead to an increase in the size of government than would a narrower base, higher rate tax system. During the past 20 years, much of the growth in government spending has been financed by the value-added tax in Europe and by the social security tax in the United States—both of which are broad-based taxes. This illustrates an important dilemma in public finance. Lower tax rates would reduce the allocative costs of the tax system for a given level of government expenditure, but they may also lead to an increase in the size of government. If the size of government is already too large as a result of biases in the political process, then a tax reform that lowers tax rates should probably be accompanied by constitutional restraint on government expenditure.

Effects on Consumption and Investment

Government expenditure and receipts also affect the level and distribution of private expenditure. There is substantial agreement among the recent studies concerning the effects of government purchases of goods and services and of transfer payments. For a given level of government expenditure, there is considerable disagreement about the relative effects of tax receipts and borrowing.

For a given level of total output, government expenditure for goods and services must “crowd out” an equal amount of private expenditure. The amount by which an increase in government expenditure reduces a specific component of private expenditure depends

on the degree of substitution between government services and that component. Transfer payments change the composition of private expenditure if the combined effect of transfers and taxes redistributes income among groups with different propensities to consume and save.

For a given level of total government expenditure, the effects of changing current tax receipts and the deficit by offsetting amounts are much less clear. A reduction in current tax receipts must be offset by an increase in future tax receipts, and the deficit is a crude measure of the present value of these future tax receipts. For several decades, conventional economic theory has assumed that people overlook the future tax receipts necessary to finance the debt service on current deficits; in this case, a reduction in current taxes and an offsetting increase in the deficit would increase consumption expenditure and reduce investment. Renewed attention is now being given to an older economic theory that assumes that people recognize the existence of the future liability and save for the future tax payments necessary to finance current deficits; in this case, different combinations of current tax receipts and deficits would have little effect on the level of current consumption and investment. For example, an individual taxpayer facing a reduction in taxes in one year and a certain increase in taxes the next year is most likely to save the current tax reduction to pay for the future liability. It is much less clear how a group of taxpayers would react to a current tax reduction if the timing and distribution of future tax increases, some of which might be borne by the next generation, were uncertain.

Several recent empirical studies of consumption and investment reflect the range of estimates of these effects. One study of the determinants of personal consumption expenditure found that government purchases of goods and services appear to reduce personal consumption expenditure by about 25 cents per dollar of additional government purchases. Transfer payments, however, appear to increase personal consumption expenditure by a substantial amount, implying a redistribution from households with a high propensity to save to those with a high propensity to consume. A reduction in tax receipts and a corresponding increase in real government debt appears to reduce personal consumption expenditure by a small amount; this result is consistent with the hypothesis that the future tax receipts necessary to finance current government borrowing are fully anticipated. The results of this study suggest that government expenditure, not government borrowing, is the primary fiscal effect leading to a "crowding out" of private investment. These results, however, are quite different from those of many prior studies.

A direct test of the effects of government expenditure and borrowing on private investment is also useful, both to estimate the several fiscal effects on the components of private investment and to provide an independent test of the estimates of the effects on personal consumption expenditure. One recent study, for example, estimated the effect of changes in the real Federal debt on the composition of GNP, without controlling for the level and composition of Federal expenditure. Over the period since World War II, this study estimated that a \$1 increase in the real Federal debt increased private saving by about 45 cents, increased State and local saving by about 5 cents, and reduced total domestic investment by about 40 cents, including reduced business investment in plant and equipment of about 15 cents. During the recent period of floating exchange rates, a \$1 increase in the real Federal debt appears to have increased net foreign investment in the United States by about 25 cents.

Another recent study estimated the effects of total Federal, State, and local expenditure for goods and services and transfers and of the total government deficit on the composition of GNP. Gross investment including consumer durables and net exports appears to be reduced by about 50 cents per dollar of government spending for goods and services and by about 50 cents per dollar of the combined government deficit. Business fixed investment also appears to have been substantially reduced by government spending for transfer payments, but most of the fiscal effects on the composition of investment have not been stable.

The combination of economic theory and the available evidence suggests the following general conclusions:

- An increase in government expenditure on goods and services, financed by an increase in taxes, reduces the sum of personal consumption expenditure and private investment by a nearly equal amount, with the larger impact on private investment.
- An increase in government transfer payments, financed by an increase in taxes, probably increases personal consumption expenditure and reduces private investment substantially.
- For the same level of total government expenditures, an increase in government borrowing probably reduces private investment by about 50 cents per dollar, but the distribution of these effects by type of investment has not been stable.

The general policy implication of these conclusions is that a reduction in government expenditure for either services or transfer payments would increase total private investment. A reduction of the deficit by increasing tax receipts may also increase private investment if the increased taxes are not levied on the income from saving and investment.

Effects of Intergovernmental Grants

The Federal budget includes about \$100 billion of grants-in-aid to State and local governments. State budgets, in turn, also include about \$100 billion of grants to local governments. Most of these grants are now limited dollar grants for broad purposes, such as education.

The effect of these grants on the economy depends on the response of the receiving governments. Many studies have found that limited-dollar, broad-purpose grants increase expenditure by the receiving government by about 43 cents per dollar of the grant, and by as much as 85 cents for education grants. The remainder of the grant appears to be used to reduce taxes or borrowing. In contrast, State and local government expenditure increases by only about 10 cents from an additional dollar of disposable income within their jurisdiction. The combination of grants and taxes by the higher level of government, therefore, has probably increased total government expenditure by 33 to 75 cents per dollar of the grants. Because the receiving government would not choose to finance this level of expenditure from its own tax base, the additional services financed by these grants are probably valued by taxpayers within the receiving jurisdiction at less than the cost of these services. This system of grants and taxes is desirable only if the sum of the value of these services within and outside the receiving government exceeds the cost of raising the additional taxes by the granting government. One other conclusion of these studies is that many of these grants are effectively fungible because they increase the total expenditure by the receiving government but have only a small effect on the composition of these expenditures.

The primary policy implication is that grants should be restricted to services that have substantial value to people outside the jurisdiction of the receiving government. In addition, the grants should be structured to assure that they lead to an increase in these specific services, rather than to a general increase in expenditure in the receiving jurisdiction.

Effects of Loans and Loan Guarantees

The Federal Government now makes net loans of about \$15 billion a year, mostly at interest rates lower than necessary to recoup the sum of government borrowing and administrative costs. The intention of these loans is to reallocate capital from sectors with a high private rate of return to favored sectors with a lower private rate of return. These loans are desirable only if the sum of the return to the recipient and the taxpayer exceeds the interest rate on a private loan.

The Federal Government now makes net loan guarantees of about \$20 billion a year. The cost appears on the budget only for loans that

default. These loan guarantees also reallocate capital to favored sectors with a lower risk-adjusted private rate of return. Again, these loan guarantees are desirable only if the sum of the return to the recipient and the taxpayer exceeds the interest rate on a private loan. These loan guarantees are especially subject to abuse because no current appropriation is necessary to cover the loan origination or the guarantee.

THE FEDERAL TAX SYSTEM

The tax system affects the cost or return to engaging in most types of economic activity, and therefore it influences the allocation of resources. How tax revenue is collected also affects the distribution of after-tax income among various groups.

The principal sources of Federal revenue are the personal income tax, social insurance taxes, and the corporation income tax. These three taxes yielded about \$641 billion in 1984, or 91 percent of total Federal receipts. Of this total, personal income taxes were \$308 billion, social insurance taxes were \$263 billion, and corporation income taxes were \$70 billion. This section addresses only the individual and corporation income taxes; social insurance taxes and benefits are discussed in Chapters 4 and 5.

The Economic Impact of the Tax System

Any tax system that relates tax liability to measures of economic activity, such as income or expenditure, will cause some inefficiency in economic performance. This is because it encourages activities (such as leisure) that are untaxed or relatively undertaxed at the expense of taxed activities. The result is a misallocation of resources compared with their most efficient use.

The concept of a "pure" income tax provides a useful benchmark for assessing the current tax system and proposals for tax reform. A pure income tax would subject all income to tax, regardless of source. Furthermore, tax liability would be determined with reference to income, so that taxpayers with higher income would pay more tax and taxpayers with the same income would pay the same tax.

Even a pure income tax system would have important implications for the efficient operation of the economy. Because labor earnings are subject to tax at the margin, the total amount of hours worked is inefficiently low. This represents a cost to the economy to the extent that the productivity of the labor forgone due to taxation at the margin exceeds the value of time spent not working. Because the income from capital is subject to tax at the margin, some desirable saving and investment opportunities are also passed up. These forgone opportunities will in the short run lower the rate of growth of

the economy and reduce the capital intensity of production. A lower capital intensity leads to a lower level of productivity and real wage rates.

Of course, the current income tax system is far from the pure system described above. Some sources of income are fully subject to tax, some are partially subject to tax, and others are completely exempt from tax. Deductions from income for tax purposes and special tax credits are allowed for a wide range of activities. Income from capital is not measured accurately, and the existence of a separate corporation income tax system adds an additional layer of taxation on capital income.

These divergences from a pure income tax system have arisen for a variety of reasons. In some cases they are the result of an explicit government decision to subsidize a particular activity through the tax system; the credit for residential energy conservation expenses is an example. In other cases, the tax feature is an attempt to maintain equity in the taxation of families or individuals in different situations, where income is not an adequate measure of the ability to pay taxes. The deductibility of extraordinary medical expenses and uninsured casualty losses are examples. Some features have been justified on the grounds that it is too complicated to implement the pure income tax treatment. In this category is the tax exemption of the income-in-kind provided by owner-occupied housing. Finally, many of the features of the tax law merely serve the interest of a particular group.

The result of all these special features is an extraordinarily complicated system that affects the return to labor supply, saving, investment, and myriad other activities. By altering the relative returns to various activities, the system diverts resources into less productive but more tax-favored activities. Consequently, the country wastes a substantial fraction of potential national income. Some of this waste is unavoidable under any income tax system; much of it, though, results because the system has strayed so far from a pure income tax concept.

Table 2-4 presents one set of estimates of the allocative costs of raising additional revenue from the major types of Federal and State taxes. These estimates assume a responsiveness of labor supply about midway between the two values used in Table 2-3 as well as about the same marginal tax rate.

The primary conclusions from these estimates are the following:

- The cost of additional government services and transfer payments substantially depends on the types of taxes that finance these expenditures.
- Among the major sources of tax revenue, the highest allocative costs are specific to the personal income tax and the major taxes

TABLE 2-4.—*Allocative cost by type of tax*

Type of tax	Allocative cost per dollar
Personal income tax.....	\$0.55
Corporate and property taxes.....	.49
Social insurance taxes.....	.19
Retail sales tax.....	.35
Total.....	.48

Source: Ballard, Shoven, and Whalley, Working Paper No. 1043, National Bureau of Economic Research, December 1982.

on the income from capital. The lowest allocative costs are specific to social insurance taxes on labor income and the retail sales tax.

These estimates suggest that the cost of additional government services and transfer payments could be reduced substantially by replacing the present tax system with broader based, lower rate taxes on either income or consumption.

Special Problems of Taxing Income from Capital

One especially troublesome problem with the present tax system is the taxation of capital income. The present tax system, with some exceptions, taxes both saving and the income from savings, which increases the price of future consumption relative to current consumption. This reduces current saving and investment relative to the amount that would be saved and invested if taxes were levied only on consumption. Many of the changes in the Federal tax system during the past several decades represent selective measures to reduce the bias against saving and investment. Such changes include limited exclusions of retirement saving and measures to reduce effective tax rates on the income from new investment. The Economic Recovery Tax Act of 1981 further reduced the bias against saving and business investment, most importantly by extending the individual retirement accounts (IRAs) to employees and accelerating cost recovery on business investment. These measures have contributed to the rapid rate of domestic business investment, but they do not appear to have increased the personal saving rate. The substantial remaining bias against saving and investment should be a major focus of future changes in the tax structure.

The current tax system also distorts the pattern of investment spending, because the effective tax rate on new investment depends on the type of asset and the rate of inflation. These distortions have arisen partially because capital income is difficult to measure. For example, to calculate net income it is necessary to deduct the expenses incurred in earning that income, a critical component of which is the

depreciation of the capital asset. Unfortunately, "economic depreciation," a concept that measures changes in value arising from both physical deterioration and obsolescence, is extremely difficult to measure accurately.

Another problem is that the tax system is not completely indexed for inflation. Although individual income tax brackets are being adjusted annually for inflation, taxation of capital income is still affected by the inflation rate. Depreciation allowances fall in real value as the price level rises, leading to an overstatement of the real income of businesses. Increases in the value of inventories solely because of inflation may also increase taxable income. Finally, increases in the value of capital assets that merely reflect the increased price level are subject to a capital gains tax upon sale.

This problem also applies to financial assets. In a period of inflation, part of the interest rate, the "inflation premium," compensates for the fact that the principal falls in real value over time. The tax system, however, considers the full nominal interest earned on taxable securities to be income to the lender and a deductible expense to the borrower. Taxable income is thus greater than true real income for the lender. Similarly, full deductibility of nominal interest payments leads to an understatement of the borrower's real income and reduces the tax liability.

Several of the changes in the tax law during the past decade have been advocated as offsets to the unintended effects of inflation on effective tax rates. These changes include the reduction in the taxation of capital gains in 1978 and the accelerated cost recovery system of the Economic Recovery Tax Act of 1981. Although these tax changes reduced the average rate of taxation on the income from new investment, they did not successfully deal with the problem that the effective tax rate varies widely depending on the type of investment and the financing method.

The effective tax rate measures the difference between the before-tax and after-tax real rate of return on an investment, expressed as a percentage of the before-tax real rate of return. Table 2-5 shows that the effective Federal corporate tax rate on the income from equity-financed investment is lower for equipment than for structures. The table also shows how the effective tax rate depends critically on the rate of inflation. Because different industries utilize different mixes of capital goods, differential taxation of assets results in differential taxation of capital income by industry. Table 2-6 indicates that the average effective Federal corporate tax rate on fixed investment varies widely by industry, and that the divergence in tax rates is higher at lower rates of inflation.

Nonuniform taxation of capital income causes misallocation of capital. One estimate of the cost of this misallocation of corporate cap-

TABLE 2-5.—*Effective Federal corporate tax rates on equity-financed investments in equipment and structures*

[Percent]

Asset class by depreciable life	Inflation rate	
	5 percent	10 percent
Equipment:		
3 years	-8	22
5 years	-3	19
10 years	20	32
Structures:		
15 years	35	45
18 years	40	45

Source: *Tax Reform for Fairness, Simplicity, and Economic Growth*, The Treasury Department Report to the President, Volume 1, p. 107.

ital is that it is equivalent to wasting 1½ percent of the present stock of capital, or more than \$5 billion worth of output annually.

Another important feature of the present tax system is the presence of a separate tax on corporate income. There is no necessary role for a separate corporate income tax in a pure income tax system. The income generated by corporations could be directly attributed to stockholders and taxed under the individual income tax system in the way that partnership income is treated. The primary justification for a separate corporate tax is to ensure that retained corporate income is subject to tax. However, the corporate income tax achieves this end only at the cost of introducing a number of distortions to economic behavior. Corporate earnings distributed as dividends are taxed more heavily than other forms of capital income because they are subject first to the corporation income tax and then to the individual income tax. Earnings retained by the corporation may be overtaxed relative to noncorporate business income if the corporate tax rate is greater than the shareholder's marginal individual income tax rate. Thus, the present system can impose a higher effective tax rate on activities carried out by corporations compared with activities performed outside of the corporate sector.

Because interest payments are deductible while dividend payments to shareholders are not, the corporation income tax system provides an incentive to use debt rather than equity financing. This leads to more debt finance than the market would otherwise choose, increasing the vulnerability of corporations to bankruptcy. Because earnings paid out as dividends are taxed more heavily than earnings retained within the corporation, there is a tax incentive for corporations to retain earnings. This may lead to inefficient investment of retained earnings at rates of return lower than those available to the stockholder.

TABLE 2-6.—Effective Federal corporate tax rates on equity-financed investments in equipment and structures for selected industries

[Percent]

Industry	Inflation rate	
	5 percent	10 percent
Highest		
Service and trade	31	40
Leather	30	40
Agriculture	29	37
Apparel	28	38
Utilities	28	38
Lowest		
Mining	13	31
Pulp and paper	12	26
Petroleum refining	12	26
Transport services	9	26
Motor vehicles	8	26

Source: *Tax Reform for Fairness, Simplicity, and Economic Growth*, The Treasury Department Report to the President, Volume 1, p. 108.

PROPOSALS FOR REFORM OF THE FEDERAL TAX SYSTEM

Dissatisfaction with the tax system has recently generated interest in fundamental tax reform. Reform proposals can be grouped into two categories: those aimed at improving the current system and those that would substitute a new system. A common objective of the tax reform proposals of both types is to redress such problems as the erosion of the tax base, the overtaxation of capital income, and the undue complexity of the system.

A critical issue in the evaluation of tax reform options is the degree to which the income tax concept should be set aside in order to reduce the taxation of saving and investment. If the tax base were consumption rather than income, taxation of the return to saving and investment would be eliminated. The present income tax system has many special features, such as the treatment of pension contributions and earnings, that reduce the taxation of saving and investment. The tension between retaining the income tax concept, which does not differentiate between income from labor and income from capital, and the desire to reduce disincentives to saving and investment is a recurring theme in the discussion of tax reform options that follows.

Reforming the Income Tax

The Treasury Department proposal, introduced in late 1984, and other similar proposals rest on the belief that the income tax concept is sound, and that the deterioration in the performance of the current system is caused primarily by its departure from the framework of a pure income tax. The basic elements of these reform plans are simplification of the tax system, a broadened tax base, and lower marginal tax rates. In some cases, however, there is a conflict between simplification and base-broadening, as there is between adher-

ence to a pure income tax ideal and other goals, such as reducing the disincentives to saving and investment.

Broadening the tax base would eliminate many sources of misallocation. In addition, because it also allows lower marginal tax rates for the same revenue raised, it would further reduce the inefficiencies arising from the tax system by reducing the differential between the return to taxed activities and the return to activities that are untaxed even under base-broadening. Exceptions to the principle of base-broadening should be justified either as incentive programs that promote the efficient use of resources or as measures to improve the equity of the system.

One element of base-broadening is the reduction of itemized deductions. The largest category of itemized deductions is interest expense. In an income tax system it is proper to deduct interest expenses incurred in order to earn income. Real interest payments should therefore be netted against real interest receipts. Arguments in favor of limiting or eliminating the interest paid deduction usually rely on the observation that many kinds of capital income are either partially or completely exempt from taxation. The primary example of this treatment is the deduction for mortgage interest, which is allowed even though the income-in-kind from owner-occupied housing is not regarded as taxable income. Currently, the law disallows the interest deduction on loans used to purchase tax-exempt bonds, and limits the total deduction of investment interest to net investment income plus \$10,000. Although these rules are difficult to enforce, some such limitation is needed to maintain the integrity of the system.

The deduction for State and local taxes, the second largest category, has been defended on two grounds. First, it is argued that State and local taxes are involuntary payments that reduce an individual's ability to pay other taxes. According to this argument, income minus such involuntary payments is the proper base on which to calculate taxes. This argument is flawed to the extent that these taxes finance goods and services that are valued by individuals and that are determined through State and local political processes. The second argument is that Federal subsidization of State and local government spending is desirable. This subsidization is sensible only if, in its absence, State and local spending would be inefficiently low because of external benefits to residents of other jurisdictions. This argument, however, does not suggest the form that deductibility implies—a subsidy that applies only to those who have sufficient total deductions to make itemizing worthwhile, and at a rate equal to the marginal Federal tax rate. In any case, grants can be a more efficient means to address these external benefits.

The deduction for medical expenses in excess of 5 percent of adjusted gross income provides taxpayers with partial insurance against extraordinary medical expenses. The rationale is that large medical expenses reduce an individual's ability to pay, and thus the principle that taxpayers of equal means should pay equal taxes requires such a deduction. The choice of the appropriate floor for the deduction should reflect a balance between the reduced insurance value of a high floor and the substantial administrative and compliance cost of a low floor that would apply to a large fraction of the taxpaying population.

Another target for broadening the base of the income tax is employee benefits. These benefits would be regarded as taxable income under a pure income tax system, but are currently given favorable tax treatment. The major employee benefit programs are pensions; health, disability, and life insurance plans; and worker's compensation.

Under current law, employer contributions to qualifying private pension plans are deductible at the time of payment, and are not included as current income taxable to the employee. Furthermore, earnings on the pension fund's assets are not taxed as they accrue. Pension fund benefits in excess of employee contributions are taxable to the employee when paid out. If marginal tax rates are constant, this treatment of employer contributions is equivalent to taxing the contribution when made and imposing no further tax on either earnings or receipt of the fund. If the employee's marginal tax rate is lower when benefits are received compared with when contributions were made, the provisions provide the equivalent of a taxable contribution plus a subsidy to earnings of the fund. Under a pure income tax system, pension rights would be fully taxable at the time of accrual. The current treatment can be justified as a selective reduction of the bias against saving that is inherent in any tax on income. Similarly, the system of individual retirement accounts, which also represents a divergence from a pure income tax base, is designed to encourage saving. Effective saving incentives, though, should operate at the margin of new saving. At present, IRAs have an annual ceiling, and individuals can achieve the tax saving without doing any additional saving by transferring previous savings into the accounts.

Employer payments for group health insurance are not now taxable at the employee level, although they are deductible by the employer. This treatment provides a subsidy to health insurance that contributes to escalating medical care expenditures. These consequences are discussed in greater detail in Chapter 4 of this *Report*. A pure income tax plan would eliminate this subsidy by making employer payments for insurance taxable to the employee.

Under a pure income tax, all real capital gains would be subject to tax in the year they accrue, and all real losses would be fully deductible against other income. The current tax treatment of capital gains diverges from this in a number of ways. Gains are taxed only when income is realized (i.e., when the asset is sold), conferring the benefit of tax deferral, and are excused from taxation upon the death of the asset owner. Sixty percent of realized capital gains for assets held longer than 6 months are excluded from taxable income. However, the tax is based on nominal rather than real capital gains and only \$3,000 of net capital losses for individuals can be offset against ordinary income in a tax year.

The 60 percent exclusion of long-term capital gains has been justified as an offset to the failure to tax only real capital gains. However, it is a highly imperfect offset, because an accurate measurement of real capital gain would not exclude a fixed fraction of gain, but rather a fraction that depends on the rate of appreciation and the amount of inflation that has occurred during the holding period. Adjusting the purchase price used in calculating taxable gain for inflation is preferable to the current percentage exclusion and the arbitrary holding-period distinction. Another reason for a lower tax rate on capital gains is to reduce the bias against saving and investment that is inherent in any income tax system.

Although under a pure income tax a separate corporation income tax need not exist, recent reform proposals have focused on redesigning rather than abolishing the corporation tax system. One approach is to lower the statutory corporate rate and reestablish the link between tax depreciation schedules and economic depreciation. This entails repealing the investment tax credit, lengthening the depreciation period, and indexing depreciation allowances for changes in the price level. The net effect of all three provisions would be to establish an approximately uniform effective tax rate, substantially lower than the present statutory corporation income tax rate, on all new investments. Because the effective tax rate would be uniform among types of assets, it would also be uniform among industries that use different mixes of capital goods.

The impact of such a reform on the effective tax rate on new investment cannot be determined from short-term corporate income tax payments. This is due to the extension of the period over which assets are depreciated and other credits against income are taken. To the prospective investor looking forward over the asset's useful life, the new tax system may be no less favorable than the current system. The timing of future tax payments with the same present value should not be relevant unless there is uncertainty with respect to tax rates in the future. For this reason, any conclusion drawn from a

projected short-run increase in corporation tax revenues about whether the incentive to invest decreases, stays the same, or even increases must be tentative.

The principal advantage of this type of reform is to eliminate the variation in the effective tax rate on investment and the resulting inefficient allocation of capital. Other proposals view reducing the effective tax rate on new investment as more important than eliminating the variation. These proposals typically accelerate depreciation allowances relative to economic depreciation.

In evaluating these proposals, it is important to realize that two conceptually distinct issues are involved—the average effective tax rate on new investment and the variation in effective tax rates. A tax system that treats all types of investment uniformly, regardless of inflation, can be designed with any effective tax rate desired. For this reason, accelerated depreciation is not a necessary component of a system that features low taxation of new investment.

Either approach to corporation taxation can be supplemented with a plan to reduce the double taxation of dividends. This can be accomplished either by allowing taxpayers to deduct a percentage of their dividend receipts as a credit against their individual income tax burden, or by allowing corporations to deduct some or all of their dividend payments from taxable income.

A Consumption Tax

Proposals that emphasize taxation of consumption are based on the notion that the income tax concept itself is flawed, and that no amount of tinkering will substantially improve a system based on taxing income. Under a consumption tax, an individual's tax liability would be based on annual consumption rather than annual income. According to one proposal, it would operate similarly to the current income tax with a greatly expanded system of IRAs. A taxpayer with earned income can now establish an IRA and deduct from taxable income up to \$2,000 per year. The funds earn income without taxation, but the entire balance is subject to full taxation at the time of withdrawal. A personal consumption tax based on the IRA model would allow the taxpayer to place an unlimited amount of deductible saving into a special account. The fund's earnings would not be taxed, and the fund's balances could be withdrawn at any time, whereupon they would be subject to taxation. Borrowing would be treated as a withdrawal, and therefore subject to tax. Consumer durables and housing could be treated in various ways; one method would be to disallow deductions for their purchase, and also to exempt from tax the imputed rental value of the services they provide. Under some plans, the individual could elect not to take a de-

duction for any financial asset purchased, in which case earnings and withdrawals of principal would be exempt from tax.

In this way, a consumption tax would not require direct accounting of annual expenditures, which would be impractical. Instead, an indirect determination of consumption would be made, based on defining consumption to be equal to income minus saving. The tax schedule applied to annual consumption could be graduated. As under a pure income tax, there is no necessary role for a separate corporation income tax under a consumption tax system. As income is no longer the basis for taxation, it is appropriate that tax liability not be incurred until funds are distributed to the owners of the corporations and used for consumption.

The return to saving is untaxed under a consumption tax. Thus, a consumption tax, unlike an income tax, creates no distortions with regard to saving and investment decisions. On the other hand, as with an income tax, it does distort incentives to work. Because it operates on a smaller tax base than the income tax, it must impose higher statutory tax rates to raise the same amount of revenue, potentially exacerbating any distortion in labor supply. Thus, the choice between an income and consumption tax system is a matter of the relative seriousness of the distortions under the two systems. This is an empirical question that cannot be answered on theoretical grounds. Although there has been a substantial body of literature on this subject, the question has by no means been resolved.

A pure consumption tax offers a solution to many of the structural problems of the current income tax. It would eliminate the nonuniformity in the taxation of various kinds of investment by setting a uniform effective tax rate of zero on the income from investment. Because the calculation of the tax base involves only current transactions, a consumption tax system would not require any explicit indexing provisions except to alleviate bracket creep if the rate structure were graduated. Furthermore, there is no need to measure economic depreciation or accrued capital gains, or to correct these measures for inflation. Because these difficulties in measuring capital income are avoided, a consumption tax represents a simplification compared with an income tax. However, a typical taxpayer's reporting requirements would be complicated by the need to add borrowing and account withdrawals to the tax base.

Many of the advantages of a consumption tax depend on the degree to which its "purity" could be maintained. A consumption tax system, though, could be burdened with special provisions favoring certain forms of investment or consumption just as the income tax system has been so encumbered. The allocative cost of such a system

would most likely exceed the cost imposed by a pure consumption tax system.

Transition Issues

One unfortunate side effect of tax reform is that it alters the return to long-term commitments made on the basis of the former tax law. Consequently, assets that lose preferential tax treatment will likely experience capital losses, while assets with a reduced tax burden will likely experience capital gains. Individuals who have made long-term commitments, such as career choices, on the basis of previous tax law may be capriciously rewarded or penalized.

These gains and losses cannot be justified as recovery of tax benefits unfairly received or as compensation for excess tax payments unfairly paid. Once the current law has been in place for several years, the benefits of preferential tax treatment are reflected in the price of the asset or activity. For example, preferential tax treatment of the oil and gas industry undoubtedly generated capital gains for stockholders when the provisions were enacted. Subsequent purchasers of oil and gas stock have had to pay a higher price that reflected the tax advantages, and therefore are unlikely to have earned an extraordinary after-tax rate of return on their investment. Revoking the tax preferences would cause a capital loss to all stockholders, whether or not the current owners received a capital gain when the provisions were enacted.

One method to reduce, although not eliminate, the gains and losses that would accompany a tax reform is to phase in the changes or postpone the effective date of implementation. This would allow time for adjustment to the new rules and reduce the current value of the induced gains and losses. Another approach is to grandfather tax law changes, i.e., to apply them only to new commitments. Grandfathering can serve to minimize the capital losses on assets that are scheduled to lose preferential tax treatment, although it will not ensure that no such losses occur.

It has been argued that tax incentives designed to increase investment ought to apply only to new investment. This suggests that provisions such as the investment tax credit and accelerated depreciation that apply only to new investment provide a better set of incentives to capital formation than changes such as a reduction in the statutory corporate tax rate or dividend relief, which apply equally to new capital and capital already in place. The targeting of new investment induces capital losses on existing capital at the time such measures are introduced, because it essentially reduces the net purchase price of substitutable new capital. This policy will also tend to maximize the investment incentive per dollar of tax revenue lost, unless potential

investors anticipate additional targeted investment incentives in the future.

There are also problems that would apply specifically to the transition from an income tax to a consumption tax. The critical issue is how to treat consumption out of the wealth that has been accumulated under the current tax system. One approach is to subject the wealth to tax when consumed by requiring existing wealth to be registered and considered to be in the IRA-type special account. This approach has been criticized as inequitable because it subjects individuals to tax on the consumption out of accumulated wealth on which income tax has already been paid; this inequity would fall most heavily on the retired population. The system would also create a tremendous incentive for individuals to hide existing assets from the qualified account at the time of transition, in order to deduct the value of the assets later as if it represented new saving. An alternative approach is to simply declare consumption out of old wealth to be exempt from tax. Even in this case, however, complicated accounting rules would be required to prevent wealthholders from reducing tax liability in the post-transition years by transferring assets to deductible qualified accounts.

The Treasury Tax Proposal

The tax reform plan proposed by the Treasury Department in 1984 embraces the principle that moving toward a pure income tax system would improve the operation of the economy by reducing the role of taxation in economic decisions. Toward this end the plan would eliminate scores of current provisions that are inimical to proper measurement of income.

The taxable base of the individual income tax would be expanded by adding currently untaxed sources of income to the base and by eliminating some deductions and limiting others. Prominent among the base-broadening measures are the repeal of the deductions for State and local taxes, limitation of charitable contribution deductions to those in excess of 2 percent of adjusted gross income, and the limitation of tax-free employee benefits (including a cap on excludable contributions for health insurance). A long list of other provisions are designed to restore uniform taxation of income.

The expanded tax base would allow individual income tax rates to be reduced significantly. The current schedule of 14 different tax brackets (15 for single taxpayers) with tax rates ranging from 11 to 50 percent would be condensed into 3 brackets with tax rates of 15, 25, and 35 percent. The personal exemption allowance would be approximately doubled, so that for a family of four filing a joint return no tax would be due on income of less than \$11,800, compared with

\$8,070 (\$9,613 assuming full use of the earned income credit) in tax year 1986 under current law. The combination of base-broadening and rate reductions would reduce the expected revenue yield of the individual income tax by 8½ percent. This reduction is spread roughly proportionately among all income groups, with the exception of significantly greater percentage reductions in tax liabilities for the lowest income groups.

The Treasury Department also proposes major changes in the taxation of business income. The statutory corporation income tax rate would decline to 33 percent from its current level of 46 percent. The investment tax credit would be eliminated and the system of depreciation allowances would more closely replicate actual economic depreciation, with an adjustment for inflation. The tax treatment of inventories would be liberalized and include indexation. Finally, a deduction for one-half of dividends would be allowed to corporations, reducing the tax penalty for paying dividends out of the corporate sector. Certain special tax preferences that apply to particular sectors, primarily financial institutions and the oil and gas industry, would be repealed.

The provisions that generally apply to corporations would increase the average effective corporate tax rate on new equity-financed investment in equipment and reduce the effective rate on investment in structures and inventories. For any firm or industry, the change in the effective tax rate would depend on the mix of these assets. The reform appears to increase the average effective tax rate on new investment generally, but this issue is not yet resolved. The reform would also substantially reduce the misallocation caused by differential tax treatment by asset type, industry, and financial arrangements.

One summary measure of the effect of any tax proposal on investment incentives is the change in the rental rate on capital. The rental rate measures the annual cost of using capital, including taxes, expressed as a percentage of the capital good's price. The net effect of the Treasury Department proposal on the rental rate depends on the rate of inflation. Table 2-7 summarizes one study's estimates of the annual rental rate on capital, assuming a 4 percent real after-tax return on corporate equity, from the combined effect of the major provisions. These estimates also depend on the assumption that the dividend exclusion provision does not reduce the cost of capital.

At a 6 percent inflation rate, the Treasury Department proposal appears to increase the rental rate on producers' equipment by about 11 percent and reduce the rate on nonresidential structures by about 5 percent. The increase in rental rates would probably reduce the fixed investment share of total output, but other effects of the Treasury proposal might increase total output in the near term.

TABLE 2-7.—*Annual rental rate on corporate capital*

[Percent]

Asset type	Inflation rate		
	2 percent	6 percent	10 percent
Producers' equipment:			
Current code.....	14.6	15.2	15.6
Treasury proposal.....	17.0	16.8	16.7
Nonresidential structures:			
Current code.....	11.2	12.1	12.4
Treasury proposal.....	11.8	11.5	11.4

Source: Lawrence H. Meyer and Associates, Special Analysis, December 1984.

An innovative aspect of the proposal is its attempt, through comprehensive indexation, to insulate the tax system from the distorting effects of inflation. Interest receipts and interest payments (other than for mortgages on principal residences and up to \$5,000 of other net interest expense) would be adjusted downward to approximate the portion that represents real income or expense. The taxation of capital gains would also be indexed. At the current inflation rate, most investors would be subject to about the same effective rate on real capital gains as now, but the effective tax rate on high return investments would be higher. Indexed inventory accounting and depreciation allowances are introduced in order to remove the undesirable link between the rate of inflation and the effective tax rate on real capital income.

In several important respects, the Treasury Department proposal does not meet the concept of a pure income tax. It does not tax the imputed income generated by owner-occupied housing. In fact, by exempting mortgage interest payments from the indexing provisions, it appears to increase the relative tax advantage enjoyed by owner-occupied housing. The Treasury Department proposal also represents a compromise with a consumption tax concept by retaining and, in some cases, expanding its saving incentives. The current treatment of pension contributions and earnings would be retained, as would be the treatment of retirement accounts for the self-employed (Keogh plans). Eligibility for IRAs would be extended on equal terms to spouses who are not employed, and the limit on tax-deferred contributions would be raised to \$2,500 (\$5,000 for a husband and wife).

In summary, the Treasury Department tax proposal represents a serious attempt to reduce the efficiency losses attributable to the current tax system. It directly addresses the major structural problems of the income tax system. On closer examination, some changes in the proposal may be desirable, but the Treasury Department proposal should be the starting point for serious consideration of tax reform.

BUDGET CONCEPTS, PROCESSES, AND FISCAL AUTHORITY

Almost no one is satisfied with the Federal budget process. Many are concerned about the outcomes of this process, which they believe do not reflect the preferences of the American people. Among the outcomes that are disturbing to many people are the following:

- Federal expenditure has continued to increase relative to GNP.
- The outstanding Federal debt has grown rapidly relative to GNP in recent years.
- Many Federal services and transfers serve only small components of the population.
- There is a general perception that there is a large amount of waste in the Federal budget.
- The Federal tax system leads to a large amount of misallocation, includes preferences for many small groups, and is unnecessarily complex.

It is not clear, however, that a change in the Federal budget process would change any of these conditions, as these conditions may result from the political processes.

Others are less concerned about outcomes than they are about the costs of the process. Their concerns include the following:

- The major appropriation bills have only rarely been approved prior to the beginning of the fiscal year.
- Many of the same issues are addressed in the budget resolution, the authorizing legislation, and the appropriation bills.
- Although the budget process consumes a large amount of the time of the Congress, it devotes only the most cursory attention to many budget elements.

Many people, of course, share both of these types of concerns. The one common view is that the present budget process is not working very well. There is much less consensus about what changes may be appropriate.

CHANGES IN BUDGET CONCEPTS

The Federal budget is a statement of expected cash outlays and cash receipts. The budget includes both operating and capital outlays and with some exceptions does not include accrued liabilities and receipts.

For many years, proposals have been made to separate the Federal budget into an operating budget and a capital budget. One argument for this concept is that it would provide a basis for determining the appropriate amount of the expected Federal deficit, based on a rule that the expected deficit in any year should not be higher than net capital outlays. Borrowing (and the necessary future taxes) to finance

current government services and transfer payments, according to this rule, would not be allowed. Some borrowing to finance net capital outlays, however, would be permitted because the benefits accrue to the next generation of taxpayers. Most State budgets are subject to such a rule.

A change in the formal budget, however, is not necessary to make this determination. A special analysis published with the budget now summarizes the level and composition of investment-type outlays. In recent years, the total outlays for investment have been close to the level of the Federal deficit, but this is misleading. Outlays for physical structures and equipment are gross outlays, and thus do not reflect the depreciation of the current capital stock. Outlays for research and development and education may lead to future benefits, but do not directly generate future cash receipts to the Federal Government. The small amount of net loans is the only type of investment outlay that leads to significant future cash receipts. In summary, there does not appear to be a strong case for a formal capital budget. There is a better case for reporting the sum of investment-type outlays, net of depreciation, as a basis for determining the appropriate limit on the expected deficit.

Several proposals have been made to change the budget treatment of loans and loan guarantees. Under one proposal, new Federal loans would be sold to private investors. This would reduce current budget outlays from the net amount of these loans to the difference between the par value and market value of these loans. New loan guarantees could also be provided by purchasing loan insurance from private firms. This would increase current budget outlays by the amount that these firms would charge to accept these guarantees. Alternatively, the Federal Government could charge an origination fee on new loans and loan guarantees to cover the costs of administration and the expected defaults, as proposed in the fiscal 1986 budget. These proposals would lead to a more accurate budget accounting of the now implicit subsidy to the recipients of Federal loans and loan guarantees. Both of these proposals deserve serious consideration.

CHANGES IN THE BUDGET PROCESS

The congressional budget process does not ensure that approved outlays equal the total outlays established by the budget resolution. In addition, the process has seldom met its own deadlines.

One proposed reform would substitute a single annual budget bill for the current process of 13 general appropriation bills and the separate bills affecting taxes and transfers. The proposal involves the following steps: The budget resolution would clear the Budget Committee by April 15 and the Appropriations Committee and the Ways

and Means Committee by May 15. A single budget bill, hopefully, would be approved by the July 4 recess. This proposal would be a radical change but it is probably feasible; about half of the State legislatures now adopt their budget in a single bill. This proposal would probably be acceptable to a President only if the appropriation bills were presented to the President by individual title or, preferably, if the President, like all but a few State Governors, had the authority for a line-item veto.

Several proposals for a biennial budget, approved in the first year of each Congress, are also being considered. Many States approve budgets on a 2-year cycle. The primary arguments for this change are to reduce the budget workload as well as the uncertainty about Federal financing. A biennial budget, however, would probably increase the number of supplemental appropriations to reflect unexpected changes in economic conditions and political preferences.

The Impoundment Control Act of 1974 authorized the President to defer specific expenditures unless overridden by a majority vote of either House. The President may rescind specific expenditures, however, only if approved by a majority of each House within 45 legislative days. Since a recent court decision, which overturned the provision for a legislative veto in this and other laws, both deferrals and rescissions must be approved by a new bill subject to the normal process. The current law severely restricts the President's authority to reduce expenditures for any purpose, including obvious waste and changed conditions. In effect, appropriations are now both a ceiling and a floor for allowed expenditures. Some consideration should be given to a rule and procedure that would provide broader authority for the President to reduce specific expenditures in order to meet the broader fiscal constraints established by the Congress.

For many years, additional outlays have often been financed by additional borrowing; decisions to increase outlays are not directly related to decisions affecting expected tax receipts. Votes to increase the debt limit have not been an effective restraint on this process. In 1983 the Senate debated a proposal to make the debt limit binding by authorizing the President to reduce outlays if the debt limit would otherwise be exceeded. In 1984 the House of Representatives approved the concept, but not the procedures, of a pay-as-you-go policy that would require an increase in expected receipts if any spending measure increased total outlays.

These proposals were not adequately developed, but they addressed a serious problem: The Congress can now vote to increase outlays for some purpose without any requirement to reduce other outlays or to vote for the increased taxes necessary to finance these outlays. The proposed reforms would permit the Congress to ap-

prove any expected deficit, but the expected deficit would be limited rather than open-ended. If the Congress is willing to finance additional outlays by reducing other outlays or by increasing current taxes rather than borrowing, this process would contribute to more effective restraint on both outlays and the deficit. Some development and consideration of these proposals deserves attention.

On net, one should probably not expect too much from changes in the budget process. After many years of observing this process, the former Director of the Congressional Budget Office concluded:

" . . . our current problems are not primarily procedural. The budgeting process is complex and time consuming primarily because the Federal Government does so many different kinds of things, and because Congress is so reluctant to concentrate on major directions of policy while leaving the details to executive departments or State and local governments. We can simplify the budget process only by simplifying the government itself and changing the role of the Congress. We can make the budget process less time consuming only if we are willing to make decisions less often, or to give up some checks and balances. Moreover, the world is an unpredictable place, and, while we could perhaps handle unpredictability in the budget process better than we do, no procedural changes can eliminate it. . . . [T]he failure to make the hard decisions necessary to bring budget deficits down [does not] reflect biases built into our budget-making procedures."

CHANGES IN FISCAL AUTHORITY

The President has endorsed two measures that would change the authority of the President and the Congress on fiscal issues.

One proposal would authorize the President to veto individual line items in all appropriation bills, subject to the current provisions for overriding a veto of any bill. Governors in 43 States now have such authority. The Congress has approved such authority for the Governors of the Commonwealth of Puerto Rico and the Trust Territories and for the Mayor of the District of Columbia—but not for the President. Authority for a line-item veto has only once been withdrawn by a State, but was later reinstated.

For more than a century, the Congress has rejected presidential requests for this authority in order to maintain the opportunity to package spending proposals that the President would otherwise veto in broader appropriations that the President would approve. This practice did not represent a serious problem in the Nation's early history, because most appropriation bills covered a narrow range of activities and the President exercised broader impoundment authority. Now, however, appropriations are presented to the President in only 13

general appropriation bills, and the impoundment authority has been severely restricted.

Approval of a line-item veto may not have a substantial effect on total Federal expenditure. The experience of the States indicates that per capita spending is somewhat higher in States where the Governor has the authority for a line-item veto, even when corrected for the major conditions that affect the distribution of spending among States. In addition, less than one-half of the Federal budget would be subject to a line-item veto, and most of that would be for defense. A President committed to Federal spending restraint, however, could use this as an effective tool to reduce total spending.

Another argument for a line-item veto is to change the composition of Federal expenditure—from activities preferred by the Congress to activities preferred by the President. A Member of Congress is elected from a specific district or State—the President is elected by the Nation. As a consequence, a Member of Congress has stronger preferences for activities that benefit his or her regional constituency, and the President has stronger preferences for activities that benefit the Nation. The expected result of granting approval for a line-item veto would be an increase in the relative expenditures with national benefits and a reduction in the relative expenditures for pork barrel projects. That should be a sufficient basis for early approval of presidential authority for a line-item veto.

The President has endorsed a balanced budget/tax limitation amendment to the Constitution. This proposal was approved by more than two-thirds of the Senate and by more than a majority of the House of Representatives in 1982. The legislatures of 32 States have petitioned the Congress to approve a balanced budget amendment or to call a constitutional convention for this purpose.

The objective of this proposed amendment is to change the rules by which decisions are made to borrow or to increase the size of Federal outlays and receipts relative to national income. The proposed amendment provides for three rules:

- Actual outlays may not exceed projected outlays.
- Projected outlays may not exceed projected receipts, without the approval of 60 percent of the total membership of each House.
- Projected receipts may not increase faster than the growth of national income in the prior calendar year, without the approval of 50 percent of the total membership of each House plus the President.

Each of these rules could be suspended upon a declaration of war. In effect, these rules would require broader support for a decision to increase the Federal debt or for a decision to increase the relative

level of Federal outlays and receipts than the support necessary for other legislation.

The case for the proposed amendment is based on a belief that present political and budget processes are biased in favor of increased debt and increased spending. Elected officials, because of their limited terms of office, may prefer current borrowing (and increased future taxes) to increased current taxes. Government officials may also prefer increased spending, because spending is more concentrated on vocal constituencies than are the diffuse effects of taxes. This perception is as old as the Republic. Alexander Hamilton's last report on the public finances expressed special concern about the accumulation of public debt in the following words:

"On the one hand, the exigencies of a nation, creating new causes of expenditure—as well from its own, as from the ambition, rapacity, injustice, intemperance, and folly, of other nations—proceed in increasing and rapid succession. On the other, there is a general propensity in those who administer the affairs of a government, founded in the constitution of man, to shift off the burden from the present to a future day—a propensity which may be expected to be strong in proportion as the form of a State is popular."

Approval of this proposed amendment would be a recognition that each generation may need to bind itself to responsible fiscal decisions in the interests of the current and future American community.

The necessary process of approving this proposed amendment would take several years, and the amendment would first be effective in the second fiscal year after approval. Thus, this amendment could not be binding prior to about fiscal 1990. This amendment cannot be a substitute for the hard choices necessary to reduce the growth of Federal expenditure and the Federal debt. Early approval of this proposed amendment, however, could force an earlier resolution of the choices necessary to resolve major near-term fiscal issues.

CONCLUSION

The primary conclusions of this chapter can be summarized in several simple sentences. The Federal deficit must be reduced. Reducing the growth of Federal expenditure is more likely to contribute to sustained economic growth than an increase in taxes. Some changes in the tax system that would permit lower marginal tax rates would also contribute to economic growth. None of these choices will be easy. A change in the budget process may be helpful. A change in the fiscal provisions of the Constitution may be necessary to achieve these goals.

CHAPTER 3

The United States in the World Economy

THE CRISIS ATMOSPHERE that marked the world economy in recent years was dispelled considerably by economic developments in 1984. Progress in several areas—notably on the international debt problem and economic stagnation in the industrialized nations—provided the global economy with more breathing room than it has enjoyed in recent years.

The events of 1984 also demonstrated, once again, the extent to which national economies are linked to one another through international trade and financial relations. Many recent positive international developments can be traced to vigorous economic recovery in the United States. A growing, open U.S. market provided strong stimulus to its trading partners in both the industrialized world and in debt-burdened developing countries. For the latter, increased export demand was a critical factor in their improved economic health.

While there was some tendency for the benefits of faster U.S. growth to spread throughout the global economic system, the strength of the U.S. recovery also resulted in increased divergence between the United States and its partners in several related aspects of economic performance. Two developments—the growing U.S. current account deficit and the high level of the dollar—merit closer examination of their causes and effects.

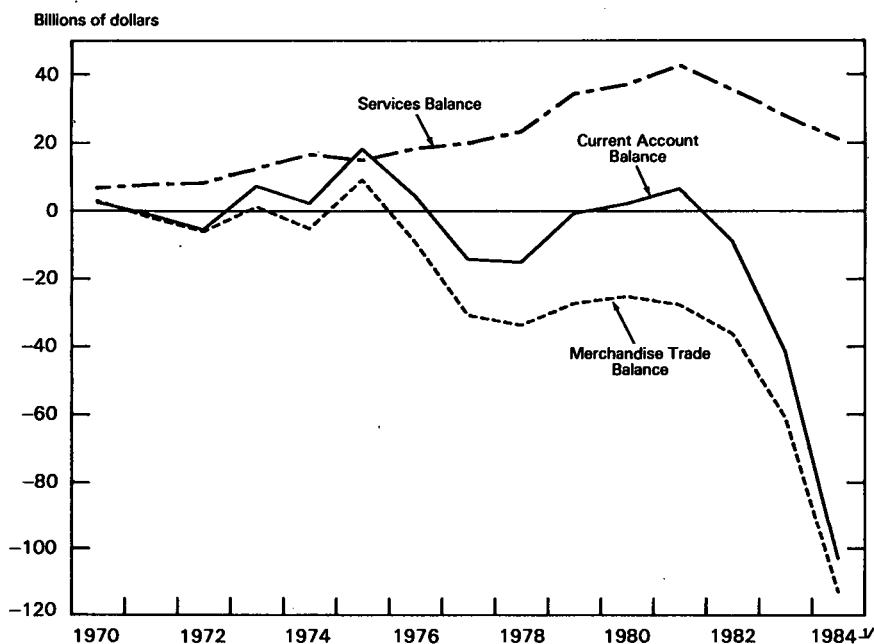
Compared to progress on international debt and growth, improvements in other problem areas have been less dramatic. Economic stagnation in many countries in the early 1980s provided an environment well suited to the advance of protectionism. Reversing this trend has turned out to be difficult. The recent marked improvement in economic conditions and the commencement of a new Presidential term provide a good opportunity for evaluating new policy initiatives, including a new round of multilateral trade negotiations. First, however, it is helpful to look at the position of the United States in the world economy and to examine recent developments in U.S. trade policy.

THE U.S. RECOVERY AND THE WORLD ECONOMY

The United States has led the industrialized world in economic recovery during the past 2 years. It also has experienced a sharp decline in its current account position—the difference between exports and imports of merchandise and services, minus net transfer payments made to foreign residents. In 1984 the U.S. current account position declined from a deficit of about \$42 billion in 1983 to a deficit of more than \$100 billion (Chart 3-1). Most of the decrease was attributable to the U.S. merchandise trade deficit, which widened by about \$50 billion in 1984 to reach an all-time high of almost \$110 billion.

Chart 3-1

Balances on Merchandise, Services, and Current Account



¹ First three quarters at annual rate; seasonally adjusted.

Source: Department of Commerce.

As a result, there have been increased calls for trade protection and other types of market intervention. Although such measures might provide a limited short-run advantage to affected sectors, they would do so only at great cost to the U.S. economy and to the integ-

urity of the global system of free-trade relationships. Moreover, such steps are difficult to reverse. Accordingly, it is important to understand the origins of the present large external deficits in order to evaluate correctly their associated costs and benefits and to establish policy priorities. As discussed below, recent large external deficits and associated capital inflows are in large part the consequences of successful recovery in the United States, rather than problems requiring separate, new policy actions.

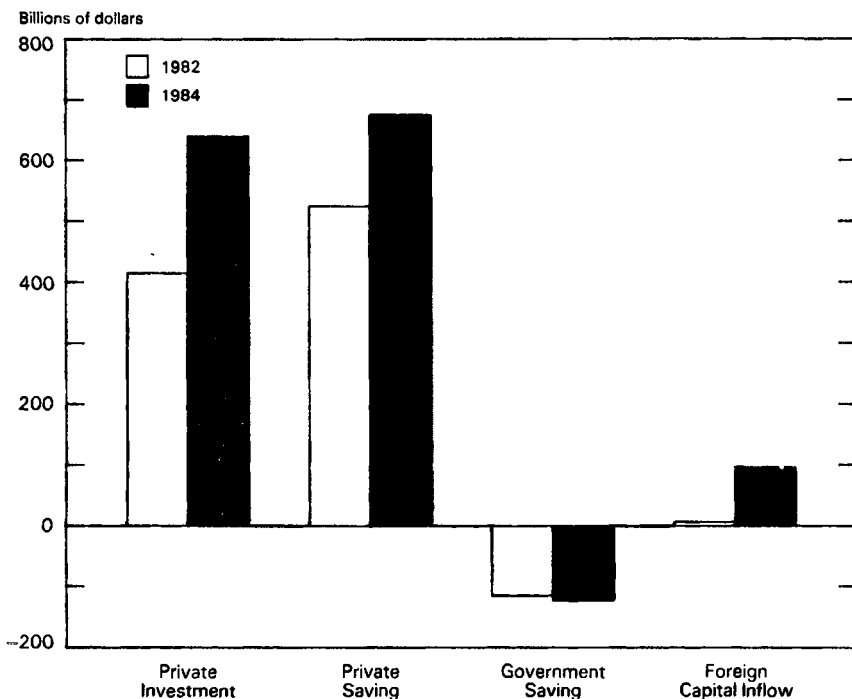
A current account deficit is not necessarily a negative factor for the economy as a whole. A current account deficit merely implies that (ignoring transfer payments) U.S. residents are purchasing more goods and services than they are now producing. Its counterpart is a capital account surplus, which measures the net claims on U.S. residents that foreign residents have accepted in payment. Thus, net capital inflow provides the financing for an excess of current expenditure over output. This inflow has been important in financing the recent U.S. investment boom.

Chart 3-2 shows how U.S. financial flows shifted during the past 2 years. Private investment is financed by saving from three sources: private saving (including undistributed profits), government saving (the negative of government borrowing), and capital inflow from abroad (the capital account surplus). Between 1982 and 1984, private saving rose by about \$150 billion to help finance a roughly \$220 billion increase—a more than 50 percent rise—in U.S. private investment; a small upswing in total government borrowing partly offset this additional private saving. However, greater capital inflow from abroad financed almost \$90 billion—about 40 percent—of the increase in private investment.

Large current account deficits and corresponding capital account surpluses are not likely to go on indefinitely. In the past when deficits or surpluses have emerged, either their underlying causes were temporary, or natural market forces (or policy responses) eventually brought about adjustment. In such episodes, whether or not the entire process of deficit and adjustment is judged to have been beneficial depends on whether the increased current expenditure is used productively. If greater current expenditure is mostly consumed, gains may be slight and subsequent adjustment painful. In the case of the present U.S. current account deficit, however, both private saving and investment have been strong. Elements seem to be in place for a sustained expansion with less likelihood of a difficult future adjustment.

Although the U.S. trade balance has fallen sharply, this decline did not arise from deterioration in U.S. productive efficiency. Since the beginning of the recovery, U.S. output per hour has advanced at

Investment and Saving in 1982 and 1984



Note.—Data for 1984 are preliminary.

Source: Department of Commerce.

an annual rate of over 3 percent, easing earlier concerns about declining productivity growth. Wage increases have also decelerated, with the result that there has been a marked improvement in U.S. unit labor costs. During the present recovery, real exports have increased at an annual rate of about $4\frac{1}{2}$ percent (about $6\frac{1}{4}$ percent in 1984 alone), only slightly less than in comparable stages of recent recoveries. The strong performance of investment in the present upswing is a positive sign for the continuation of these trends.

CAUSES OF THE TRADE DEFICIT

In last year's *Annual Report*, three factors were singled out as leading causes of the large trade deficit: the strong dollar, reduced U.S. exports to heavily indebted developing countries, and faster growth in the United States compared with its industrialized trading partners. These factors still are present, but the emphasis that each de-

serves has shifted. Improved conditions in many developing countries have allowed them to resume import growth, though certainly not at pre-1981 rates. Although the growth-rate gap between the United States and its industrialized partners widened earlier this year, some convergence has been evident lately as U.S. growth slowed and expansion in Europe accelerated somewhat. The dollar, however, continued to strengthen in 1984.

Estimates of how much each of these factors contributed to the recent decline in the U.S. trade balance are inherently inexact, in part because these factors are not independent of one another. Nonetheless, rough estimates give a general impression of their relative importance. Since 1981, U.S. real growth has exceeded that of its main industrialized trading partners by about two-thirds of a percentage point per year on average; in 1984 the gap in growth rates was more than four times as large. Even at unchanged relative prices, with faster growth of U.S. spending, U.S. purchases of imported materials and products normally will increase. On this score alone, one can account for roughly one-quarter of the \$85 billion decline in the annual U.S. trade account position since 1980. Slower growth in U.S. exports to debt-burdened developing countries, which were obliged by financing constraints to reduce their imports, accounts for a slightly smaller share of the decline. This factor was especially significant in trade with Latin America, where the United States has a large stake in export markets.

Not all external developments have increased the U.S. deficit. The dollar price of oil has moved downward by more than 20 percent since 1981. Lower prices, recent shifts to other energy sources, and conservation have meant that annual payments for imported oil by the United States have been cut by about \$20 billion in the past 4 years. When these gains in the cost of imported oil are included, a net decline in the U.S. trade balance of about \$60 billion to \$70 billion remains—much of it attributable to the strong dollar.

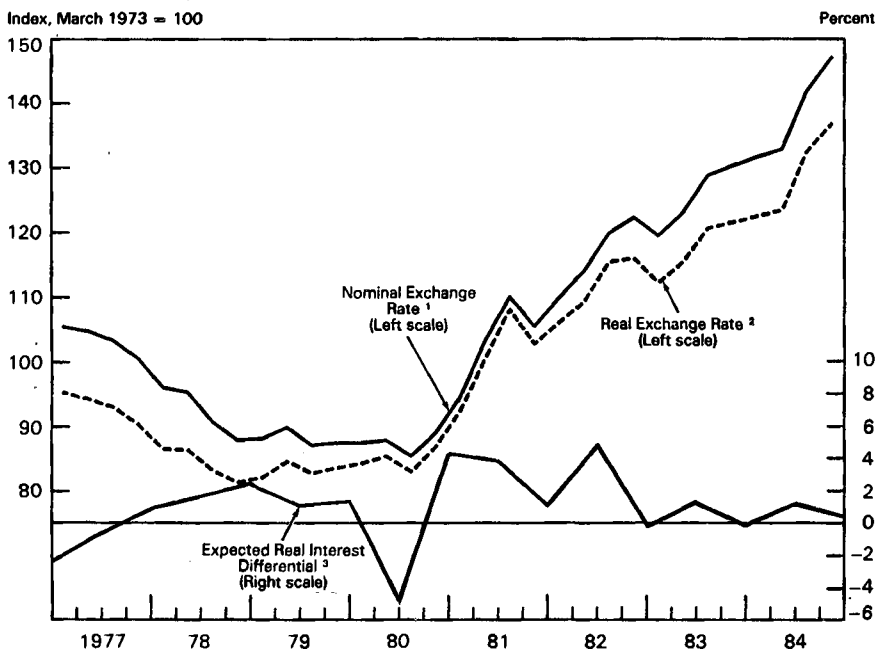
THE STRONG DOLLAR

One of the most striking features of the present recovery in the United States is that it has been associated with a pronounced and persistent rise in the value of the dollar. Since 1980, the latest year in which the U.S. international current account was roughly in balance, the dollar has advanced steadily against a weighted average of other major currencies until by the end of 1984 it was about 65 percent above its 1980 average and at its highest level since flexible exchange rates were adopted in 1973 (Chart 3-3). The largest increases in the dollar's value occurred in 1981 and 1982 from an unusually low level in 1980. However, during the eight quarters since the trough of the

recession at the end of 1982, the dollar strengthened by about 20 percent.

Chart 3-3

Nominal and Real Exchange Rates and Expected Real Interest Differential



¹ Multilateral trade-weighted dollar.

² Nominal exchange rate adjusted by relative consumer prices.

³ U.S. interest rate (3-month) minus trade-weighted average interest rate (also 3-month) for six industrial countries adjusted by corresponding OECD inflation forecasts.

Sources: Board of Governors of the Federal Reserve System and Organization for Economic Cooperation and Development (OECD).

Given enough time, exchange rates adjust so that a representative bundle of goods costs roughly the same in countries linked by open trading. There is ample evidence, however, that this relationship need not hold over the short or medium term. Changes in the dollar's real exchange rate (i.e., the nominal exchange rate adjusted for consumer price levels here and abroad) have generally been less pronounced than changes in the nominal exchange rate, but the latter have not merely compensated for relative price performance. Since 1980 the dollar's real rate of exchange has risen by about 60 percent, only slightly less than the nominal exchange rate (Chart 3-3). From the fourth quarter of 1982 to the fourth quarter of 1984, the dollar's real exchange rate appreciated by about 18 percent.

Over shorter horizons that are relevant for many economic decisions, exchange rates are determined in international asset markets. Asset prices, including the exchange rate, can change quickly in response to changing expectations about fundamental characteristics that influence asset demand and supply. International investors make their portfolio decisions mainly on the basis of expected rates of return, including expected exchange rate changes, adjusted for risk and other special factors. It is useful, therefore, to compare expected real interest rates on dollar and nondollar assets (i.e., nominal interest rates adjusted for expected inflation) to understand what has been happening in foreign exchange markets.

Starting in 1979, expected U.S. real interest rates moved strongly upward, despite a brief interruption in mid-1980, and peaked in 1982. Although they have fallen since then, they are still at relatively high levels. A rise in real interest rates abroad at about the same time was much less pronounced and left a substantial positive gap between U.S. and foreign real interest rates, as indicated in Chart 3-3.

Reasons for the marked increases in U.S. expected real interest rates and the dollar's value at this time are found largely in the character of the successful U.S. recovery. Increases in U.S. real interest rates were associated with the 1979 change to a tighter U.S. monetary stance. Subsequent declines in inflation contributed to a strengthened dollar between 1980 and 1982, as the expected real return to holding dollar assets rose and improved U.S. inflation performance itself justified a higher nominal dollar exchange rate.

More importantly, as emphasized in Chapter 1, the Economic Recovery and Tax Act of 1981, together with reduced inflation, significantly raised the after-tax rate of return on new business investment. This increase in the real rate of return on U.S. business investment spilled over to the return on dollar-denominated assets generally and to the level of the dollar itself. After 1981, expanding Federal budget deficits may also have raised the level of U.S. real interest rates and helped to strengthen the dollar. However, the extent of upward pressure on real interest rates and on the dollar through this channel is uncertain, and numerous studies have failed to uncover significant effects.

Higher real returns and lower inflation account for some but not all of the upward movement of the dollar. The fact that the real exchange rate has risen steadily, while the real interest rate gap in favor of the dollar has narrowed since 1982 (and occasionally has been negative), suggests that other factors have continued to push up the demand for dollar assets. Evidently the combination of increased after-tax profitability of U.S. corporations, demonstrated strength of

the U.S. recovery, reversal of international lending outflow from U.S. banks, and generally more favorable longer run prospects for the U.S. economy have prompted an additional increase in demand for dollar assets. Just as in 1980, when a relatively low level of the dollar probably reflected a more pessimistic view of future U.S. performance than could be measured by the real rate of interest and other available indexes, in 1984 a relatively high value of the dollar probably reflected more optimistic assessments than these indexes captured.

The recent strength of the dollar has had both positive and negative effects. As the dollar has risen, some U.S. industries that compete in international markets have experienced difficulties. Many of these problems are concentrated in the manufacturing sector, where declines in trade balances across industries have been widespread. However, some manufacturing industries with large trade losses are troubled by problems beyond those arising from dollar strength, including relatively high labor costs, raw material costs, and other factors that have contributed to a loss of comparative advantage. The traditional U.S. surplus in agricultural products has contracted by about \$8½ billion from its level of 3 years ago, as dollar appreciation and slower demand growth have kept dollar prices and export volumes down. Declines have also occurred in U.S. exports of raw materials.

In many respects, however, the dollar's rise in value has been beneficial. The strong dollar has stimulated production and investment in sectors less involved in international trade. In other industries, competition from imports has prompted more expenditure on plant and equipment as well as greater attention to controlling wages and other costs. Prices of traded goods and close substitutes have been kept lower than they would have been otherwise, thereby benefiting both U.S. consumers and U.S. producers who use imported inputs. Undoubtedly, the dollar's rise since 1980 has made the task of bringing inflation under control considerably easier. In addition, because of the shift in demand toward dollar assets, U.S. interest rates have been lower and real investment higher than would have been the case otherwise. Stronger U.S. investment will ultimately mean higher productivity and faster potential growth.

THE DEBTOR COUNTRIES: RECENT PROGRESS

External deficits have narrowed markedly in recent years for many borrowing countries. Since 1981 the total annual current account deficit of the largest 17 debtors among the developing countries has declined by about \$44 billion to a level estimated to have been about \$20 billion in 1984, despite increased interest burdens. Some coun-

tries have made especially dramatic gains; Brazil and Mexico stand out in particular. The Brazilian current account deficit declined by more than \$8½ billion in 1983 and is estimated to have fallen by about another \$6 billion in 1984 to only about \$½ billion. For Mexico, the gains have been even more dramatic—a total improvement of \$19 billion between 1981 and 1983. The Mexican current account was in surplus by \$5 billion in 1983, and the surplus is estimated to have been only slightly less in 1984.

Initial improvements in the current accounts of borrowing countries were achieved primarily through cuts in imports. Subsequently, import declines continued in response to restrictive fiscal and monetary policies and exchange-rate devaluations that were part of adjustment programs supported by the International Monetary Fund. More recently, as the potential for further import reduction has been exhausted, continued improvement in borrowers' external positions has resulted from expanding exports. Almost all of the major borrowing countries experienced export growth in 1984. Most have shown stronger real output growth as well. This has been important in maintaining the political consensus needed to sustain their economic adjustment.

Increased exports have been largely a reflection of expanding demand in the industrialized countries, especially the United States. As the leader in the global recovery, the United States with its comparatively open markets has played a disproportionate role in absorbing the output of the debtor countries. Among the industrialized countries, the United States now buys about 45 percent of the exports by the 17 largest debtors, up from about 40 percent only 2 years ago.

Although in 1983 and 1984 banks slowed their lending to the debtor countries from earlier peaks, bank loans and official lending still have been available at levels adequate to support adjustment programs. In consequence, the ratio of debt to exports—a measure that is often used as an indicator of a borrowing country's financial position and ability to pay—has stopped rising in most countries and has started to decline in many others. However, the average ratio is only slightly below 2, which is still considerably above the average level of about 1½ in the mid-1970s.

Positive steps have also been taken in restructuring outstanding debt—the most notable development being a rescheduling agreement between Mexico and its private bank creditors in September 1984 on Mexico's outstanding public-sector debt of about \$50 billion. Previous rescheduling of smaller amounts of sovereign debt had generally been on a 1-year basis; the Mexican agreement broke new ground by covering debt maturing over the following 6 years. Partly in view of

Mexico's excellent performance under its adjustment program and continued good prospects, the lending terms in the new agreement were attractive—a quite low interest-spread and a generous grace period. In addition, up to 50 percent of a bank's outstanding credits to Mexico may be converted at the bank's option to its home currency, thus enabling more secure funding.

The recent gains made by Mexico, Brazil, and several other key debtors confirm that their strategies for economic adjustment and repayment are basically sound. International debt problems have not been solved, however. Progress among debtor nations has been quite uneven. Although some countries have made substantial improvements in their current account positions, the majority of the large debtors are still in deficit, indicating that they are still increasing their net indebtedness to the rest of the world.

In some cases, relatively poor performance arises from special factors. Countries that depend heavily on exports of certain raw materials (such as copper, rubber, tin, and oil) have been set back by recent price declines. In general, price trends for exports of developing countries have not been favorable lately; the average dollar price of industrial raw materials (excluding oil) has fallen by almost 15 percent since the end of 1983. In other cases, essential domestic adjustments have not yet been made. The differing performance of these countries underlines the fact that the extent of a debtor country's recovery depends closely on export growth, maintenance of competitive exchange rates, well-conceived investment plans, and noninflationary macroeconomic policies.

Recent events also reveal clearly how sensitive the performance of the debtor countries is to the state of the world economy—including the level of interest rates, the value of the dollar and, especially, the rate of growth of the industrialized economies. Sustained growth in the industrialized countries, however, is not sufficient to ensure that demand for the exports of developing countries will continue to expand. The markets in industrialized countries must remain open, not only to traditional exports from the developing debtor countries, but also to more skill-intensive exports that emerge as their comparative advantage evolves. In recent years, increased protection has been directed at this latter class of products—particularly those from the so-called “newly industrialized countries.” The costs of such protection include not only misallocation of resources but also damage to the prospects for successful debt repayment.

Both production and the prospects for debt repayment would be further enhanced by expansion of foreign direct and portfolio investment flows. These flows could increase if host countries were to provide a better investment climate. Increased foreign direct invest-

ments, in particular, would not only partly relieve borrowing needs but would also provide additional benefits, such as technological transfers, training, and improved export marketing know-how.

INDUSTRIALIZED TRADING PARTNERS

There have been significant differences among the major industrialized countries in their recovery from the 1980–82 world recession. These differences were still apparent in 1984. Although the United States, and to a lesser degree Japan and Canada, experienced further healthy expansion (albeit from a fairly deep trough in Canada), recovery in Europe still lagged well behind. Average real growth in the four major European economies (Germany, France, the United Kingdom, and Italy) accelerated slightly in 1984 to about a 2¼ percent annual rate, but this was less than half the average of the three non-European countries mentioned above. Although some progress has been made lately in revitalizing the European economies, fundamental problems remain. The most visible symptom of these problems is the presence of persistent and rising unemployment, currently equivalent to almost 11 percent of the Western European work force.

Two factors are often cited to explain the slow economic recovery in Europe: structural problems in European labor markets and disincentives to adjustment and growth. Structural factors include highly indexed wages, high nonwage labor costs and social charges, and arrangements for excessive job security that contribute to a low rate of labor mobility and new hirings. Disincentives include various government regulatory burdens, high marginal tax rates on labor and capital incomes, and large subsidies paid to agriculture and declining industrial sectors.

One consequence has been relatively low rates of investment in Europe. Expressed as a share of output, private investment has declined steadily since the first oil shock in 1973 and is now well below the level of investment shares seen in Europe in the 1960s. There has also been essentially no net job creation in Europe in the past 15 years. In addition to disincentive effects and labor market rigidities, labor market conditions have been worsened by demographic factors—especially a heavy influx into the work force of younger workers. Labor force growth is expected to decelerate in coming years, but in the absence of a marked pickup in investment, achieving a significant reduction in European unemployment will be difficult.

Many European countries have given priority to reducing large government deficits and limiting the expanding share of government expenditure in total demand. Progress has been made, but the hope that deficit reduction and curbs on public spending would contribute

significantly to higher growth by releasing resources to the private sector has not been fully met.

On balance, the external sector has provided little net stimulus to growth in Europe. This is not to say that European exports to the United States have been weak. On the contrary, U.S. imports from the European Community (EC) have grown at about a 17 percent annual rate since 1982. However, the U.S. market makes up a relatively small share of total EC export sales (about 16 percent, not including intra-EC trade). Trade within the Community has fallen since 1980, and other important EC export markets—Organization of Petroleum Exporting Countries (OPEC), the Eastern Bloc, and major debtor countries—have been stagnating or declining. In these latter markets, however, even the market shares of European exporters have not increased, despite significant gains in competitiveness vis-à-vis the United States in the past 2 years.

Although progress has been slow in Europe, there are grounds for optimism. Nominal wage increases have decelerated in several countries. In some cases, performance in 1984 has been affected by special factors, such as persistent inflation in France and sectoral strikes in the United Kingdom and Germany. The rapid rebound of activity in Germany following the settlement of the metalworkers' strike suggests that underlying German growth potential is strong. Economic performance in the other countries may improve for similar reasons once their particular difficulties are dealt with successfully. Continued control of inflation and reduction of government expenditures may provide many European countries with a foundation for more stable economic growth.

In contrast to the European economies, Canada and Japan have performed well. The U.S. market is relatively much larger for both countries (70 percent of total exports for Canada and 30 percent for Japan), and recent export growth to the U.S. market has been robust (since 1982, annual growth of about 19 percent for Canada and 25 percent for Japan). The fact that Japan also exports heavily to the rapidly expanding newly industrialized countries of Asia (South Korea, Taiwan, Hong Kong, and Singapore) also has contributed to its largely export-led recovery.

Trade relations with Japan have sometimes been singled out as a special problem. In a period in which the United States is running the largest trade deficit of any nation, Japan is in quite the opposite position with a trade surplus of just over \$44 billion in 1984. Furthermore, the U.S. deficit in bilateral trade with Japan expanded significantly in 1984 to an estimated annual deficit of over \$33 billion.

Emphasis on the bilateral balance in a multilateral trading system is misplaced, however, and can be misleading—just as would be inferences about a person's financial standing based on his or her relationship with only one creditor. In fact, the decline in the U.S. bilateral trade position with Japan since 1981 has been less than that with either the European Community or Latin America. Although some problems have arisen in the past in relation to foreign access to particular markets in Japan, an agreement reached in early January 1985 between the President and the Japanese Prime Minister to establish high-level talks on this issue is a sign of potential progress in this area.

RECENT U.S. ACTIONS IN INTERNATIONAL TRADE

U.S. policies in international trade are tied inextricably to domestic political and economic considerations. They are also developed within the larger context of a dynamic international marketplace and the sometimes abusive trading policies of other countries. Against that backdrop, U.S. actions in 1984 represent progress toward freer trade, as well as some increases in protection. Significant actions include the passage of a major trade bill by the Congress in cooperation with the Administration, decisions on several important import relief cases, and the extension or modification of existing import restrictions in several sectors.

THE TRADE AND TARIFF ACT OF 1984

Despite unusually strong protectionist pressures, the Congress and the Administration put in place an omnibus trade law that generally supports freer trade. The major provision of the Trade and Tariff Act of 1984 renews until 1993 the Generalized System of Preferences, which eliminates tariffs on eligible imports from qualifying developing countries. Some imports (notably textiles) are not included. In addition, the renewed program establishes eligibility criteria for participation that include the extent to which participating countries offer access for U.S. exports, protect intellectual property, eliminate trade-distorting investment policies, and enforce certain rights of workers, including rights of association. Countries with a per capita gross national product exceeding \$8,500 (a figure indexed to one-half the rate of U.S. economic growth) are ineligible for the program.

The Act also provides authority for negotiations (with Israel, specifically, and with other countries) to establish a free-trade zone. Congressional ratification is required, however, and the President retains the power to impose quotas or to negotiate export restraints if

the U.S. International Trade Commission determines that increased imports cause or threaten to cause injury to domestic industries.

Certain measures in the new Act extend the Trade Act of 1974 to provide specific authority for the President both to retaliate against and to negotiate reductions in barriers to U.S. exports, including exports of services and foreign investment. The Act provides explicit authority for the U.S. Trade Representative to initiate investigations of unfair trade practices and expands the countervailing duty statutes to include specifically products that benefit from subsidized inputs.

In a series of provisions, the Act extends the legal definition of affected industry to allow grape producers 2 years to file petitions against foreign trading practices affecting the wine industry (this provision deviates from the established principle of allowing petitions only from firms with like or directly competing products); revises the criteria for determination of injury due to imports under section 201 of the Trade Act of 1974 (by requiring the International Trade Commission to consider plant closings and producers' inventories of imports in determining injury); and provides explicit authority for the President to implement his recently announced steel trade program, which is discussed below. The Act also reduces tariffs on about 100 products.

OTHER TRADE ACTIONS

The International Trade Commission investigated several section 201 "escape-clause" cases during 1984. After a finding of injury due to imports by the Commission, the President is charged with making the final decision on whether to restrict imports based upon the national economic interest. The Commission determined that imports were not a substantial cause of serious injury, or threat of serious injury, to three small domestic industries. In two major cases involving unwrought copper and carbon steel, however, the Commission did find injury and recommended import relief in the form of various trade restrictions. The President rejected import relief in the case of copper, primarily because of potentially large damage to the U.S. copper fabricating industry.

The President also rejected the import relief for steel proposed by the Commission, but opted instead to negotiate voluntary restraint agreements (VRAs) to be in effect for 5 years. The President acted in response to sharp surges of steel imports during the year, which were the result in part of foreign government subsidies. The restrictions are expected to limit imports to roughly 20 percent of domestic steel consumption. Agreements for new export restrictions have been reached with Japan, South Korea, Spain, Australia, South Africa, Mexico, and Brazil. A general restriction agreement with the EC will

continue through 1985, but new restrictions on pipe and tubes will extend through 1986.

In April 1984, the 3-year Japanese VRA on automobiles announced in 1981 was extended an additional year at a slightly higher limit of 1.85 million cars per year. Following losses by U.S. automobile manufacturers in 1980, Japanese automobile exports to the United States were restricted in April 1981 to 1.68 million cars per year on the grounds that the U.S. automobile industry needed time to adapt to world competition through introduction of new technology and cost-cutting measures.

In agriculture, the United States maintains a number of significant import restrictions, including limitations on cotton, peanuts, dairy products, and sugar. With the exception of the quota on sugar, these restrictions remained unchanged in 1984. The sugar quota was reduced by 17 percent to be consistent with the domestic price support for sugar and changing market conditions, including reduced sugar demand, increased use of sugar substitutes, increased domestic sugar production, and surging imports of products containing sugar from Canada and Mexico. In January 1985 the quota was further reduced by extending the quota year by 2 months.

In August 1984, new interim regulations governing U.S. textile imports were announced that codified the "substantial transformation" principle used by the U.S. Customs Service to determine the country of origin of imported goods. These regulations were issued in response to claims by domestic producers that foreign suppliers were circumventing relevant export restraint agreements by shipping parts of garments to other countries for superficial processing before final shipment to the United States. Foreign producers, importers, and domestic retailers objected strongly to the new rules. Their comments and those of other interested parties on the interim regulations were being reviewed by the U.S. Customs Service at the end of 1984.

ACTIONS IN INTERNATIONAL FINANCE

The United States now maintains a full array of essentially open financial markets for international investment and fundraising, as do several other industrialized countries, including Germany, Switzerland, and the United Kingdom. In May 1984 an agreement was reached between the Japanese and U.S. Governments on measures designed to liberalize markets for yen-denominated financial assets. The agreement marks an important stage in Japan's continuing movement toward fully liberalized financial markets.

The U.S. objective of unrestricted capital flow is also evident in the removal in 1984 of the U.S. withholding tax on interest earned by nonresidents on U.S. bonds and other financial instruments. The new

tax rules now make it feasible for U.S. corporations to issue securities directly to foreigners without having to go through the previous cumbersome and costly procedure of issuing indirectly through an off-shore shell subsidiary. Soon after the U.S. rule change, both Germany and France dropped their own corresponding taxes on interest payments to nonresidents, and Japanese authorities have announced their intention to do the same.

The United States has also been at the forefront of efforts in the Organization for Economic Cooperation and Development (OECD) to restrict the use of subsidized financing for exports. In the case of so-called "mixed credits"—the use of concessionary loans for development aid to boost exports through tied sales—the consequences are costly not only to competing exporters, but also to aid recipients because choice of supplier and, often, choice of product are restricted.

In characterizing U.S. actions in international trade and finance in 1984, one cannot say that U.S. policy greatly advanced the cause of free trade; neither can one say, however, that U.S. policymakers capitulated to the unusually strong domestic protectionist pressures. On balance, the Administration and the Congress managed to resist those pressures and helped to set the stage for potential advances toward freer trade in 1985 and in years to come.

THE CHALLENGE OF COMPREHENSIVE FREE TRADE

The world is moving away from, rather than toward, comprehensive free trade. In major industrialized countries, for example, the proportion of total manufacturing subject to nontariff restrictions rose to about 30 percent in 1983, up from 20 percent just 3 years earlier. Although tariffs among industrialized countries have been reduced substantially since World War II, tariffs also remain high in some sectors (textiles, footwear, steel, wood products, and shipbuilding, for example) and among developing countries. In nonmanufacturing, international trade is subject to even more severe restrictions and market distortions, especially in agriculture and services.

New international initiatives are required to sustain the post-World War II momentum toward comprehensive free trade and the world economic growth that it has fostered. Speaking to the International Monetary Fund and World Bank Joint Annual Meetings on September 25, 1984, the President called for just such initiatives:

"For the millions around the globe who look to us for help and hope, I urge all of you today: Join us. Support with us a new, expanded round of trade liberalization, and, together, we can strength-

en the global trading system and assure its benefits spread to people everywhere.”

Accordingly, what follows is first, a restatement of the case for free trade, including a rebuttal of the myths of protectionism; second, a discussion of the obstacles to progress toward free trade; and, finally, a discussion of strategies for surmounting these obstacles.

THE CASE FOR FREE TRADE

The persuasive power of arguments for free trade arises not from abstract economic reasoning, but from concrete historical comparisons of the achievements of free trade against those of protectionism. The conclusions to be drawn from such comparisons over the past two centuries are unambiguous: Countries that have followed the least restrictive economic policies both at home and abroad have experienced the most rapid economic growth and have enabled the greatest proportion of their populations to rise above subsistence living standards. Nevertheless, the demonstrated achievements of free trade cannot be taken for granted—the myths of protectionism persist, eroding the discipline of national economic policies around the world and frustrating new free-trade initiatives.

The Achievements of Free Trade

The power of free trade is amply demonstrated in history, including the early history of the United States. Under the Articles of Confederation, protectionist interests in individual States moved quickly to restrict the flow of competing products from other States. The debilitating effects of this protectionism on the States’ economies convinced the framers of the U.S. Constitution to forbid individual States from levying tariffs (and the Federal Government from levying export duties). Federal courts have guarded the integrity of this prohibition, ruling as recently as 1981, for example, that a Louisiana tax on natural gas passing through the State was unconstitutional. The constitutional ban on State tariffs was crucial to the development of the U.S. economy not only because it established a free-trade area among the 13 original States, but also because it ensured that the free-trade area would expand automatically as new States joined the Union.

A second experience that illustrates the power of open markets is Britain’s movement toward freer trade in the middle of the 19th century. There are two salient features of this experience. First, Britain’s move was unilateral. The repeal of the Corn Laws by Robert Peel’s government in 1846 was not conditional upon “concessions” from Britain’s trading partners. Rather, the repeal was motivated by the growing recognition that the tariffs on imported grain set by the Corn Laws were a barrier to the advancement of Britain’s own econ-

omy. Second, the results of free trade were exactly opposite to predictions that a decline in the prices of imported grains from repeal of the Corn Laws would lead to a corresponding decline in wages. Rather than falling, however, wages rose rapidly due to growth. Thus, Britain was very much an "engine of growth" in the 19th century world economy, and freer trade fueled the engine.

More recent experiences sustain the point. The slide of the world economy into the Great Depression of the 1930s was accelerated by unprecedented tariffs imposed by the Smoot-Hawley Act of 1930 and by similar measures abroad. In response to such disastrous protectionism, the U.S. Secretary of State, Cordell Hull, organized passage of the Trade Agreements Act of 1934, which became the basis for multilateral trade liberalization. Further trade liberalization, however, was delayed until after World War II. Significantly, 1984 marked the 50th anniversary of the Trade Agreements Act.

Since World War II, successive rounds of multilateral trade liberalization have demonstrated the power of open markets through almost four decades of world economic growth. After full implementation of the current Tokyo Round tariff cuts in 1987, import tariffs among major industrialized countries will average below 5 percent on industrial products, down from averages of more than 50 percent at their peak in the 1930s. These cuts have played a central role in the post-World War II expansion of the world economy.

During the same period, the emergence and expansion of the European Community liberalized trade even further among Western European countries. As the United States had done almost two centuries earlier, the members of the EC accelerated their economic growth by establishing a large, relatively unrestricted common market. The opening of the European market has been central to Western Europe's economic growth.

A final illustration of the achievements of freer trade is particularly important. As former colonies gained independence after World War II, they typically sought to achieve economic independence as well. Many embarked upon extensive import substitution policies to reduce their dependence on imports from former colonial trading partners. The overwhelming conclusion of studies of these policies, however, is that they severely stunted economic growth. In contrast, those developing countries that pursued more open economic policies have experienced truly remarkable records of economic growth. Recent examples include Hong Kong, Singapore, Taiwan, and South Korea, among others.

Acknowledging the record of free trade as a development strategy, the President made the following commitment on his departure to

the International Meeting on Cooperation and Development in Cancun, Mexico in 1981:

“Free people build free markets that ignite dynamic development for everyone. We will renew our commitment to strengthen and improve international trading, investment, and financial relations, and we will work for more effective cooperation to help developing countries achieve greater self-sustaining growth.”

The Myths of Protectionism

Despite the achievements of open markets, myths regarding the benefits of protectionism persist. The most misleading of these, perhaps, is the claim that import restrictions save jobs at home. While employment in one sector may be higher with protection than without, job losses in other sectors of the economy are often even larger in the intermediate term and about the same magnitude in the longer term. Thus, import restrictions have little or no effect on total employment, although they do distort the distribution of employment among sectors. Moreover, estimates of the annual cost to consumers of each job saved in protected sectors are as high as \$250,000 for some sectors. Finally, the influence of protection on employment in an industry is usually small relative to other determinants, such as the general prosperity of the economy or long-term trends in the demand for the product.

A second myth is that protection can provide a breathing period for an industry to modernize and to become more competitive. A related argument is that the protection permits a smooth “rundown” of existing production in the industry. Most of the evidence on either argument runs to the contrary. Although protection may increase resources for improving competitiveness, it also reduces pressure for adjustment. Once protection is granted it is common for productivity and unit costs to deteriorate even further relative to other industries.

Paradoxically, more recent forms of protection (in particular, VRAs) help *foreign* producers by enabling them to charge higher prices for the restricted exports. United States protection of steel in the 1970s, for example, is estimated to have increased the annual profits of Japanese steel producers by about \$200 million—or about half of the Japanese expenditure on research and development in steel (the world’s highest).

By the same token, protection does not simply facilitate a smooth rundown of existing activity—it often frustrates adjustment by attracting new resources to the sector. In many countries a disproportionate amount of entrepreneurial activity is devoted to protected sectors. Fully one-third of all the clothing and textile establishments in the United States at the end of 1982, for example, were not in the industry just 6 years earlier, and more than one-fifth of all new man-

ufacturing firms in France in recent years have been in the clothing and textile industry. Thus, it is not surprising that the "temporary" protection many industrial countries sought for textiles beginning in the early 1960s has resulted in a formal, long-term policy of protection.

Another myth of protectionism is that protection is a "fairer" policy than free trade for lower and middle income families. The burden of protection, however, typically falls most heavily on lower income consumers. The tariffs (explicit or implicit) embodied in U.S. trade barriers are more regressive than any other major tax, including sales taxes. Trade restrictions in industrial countries are skewed toward restriction of those basic, labor-intensive goods that comprise a relatively large share of lower income budgets. In most industrialized countries, for example, the proportionate burden of restrictions of textile imports on lower income consumers is several times greater than on higher income consumers.

There is also the argument that the United States should restrict the flow of imports to protect the economy from "unfairly" subsidized products from other countries. In many respects this argument, too, is incorrect. Permanently subsidized exports to the United States obviously make U.S. imports cheaper than they otherwise would be. Thus, rather than being a "beggar-thy-neighbor" trading policy, such subsidies are an "enrich-thy-neighbor" policy. Moreover, a State within the United States is not permitted to restrict imports of goods produced in other States that provide "unfair" tax subsidies.

There are two cases, however, in which this argument for restraint can be correct. One is when the foreign subsidy is not permanent. Countries might, for example, use subsidies to expand domestic production in some industries during the down period of a business cycle. In this case the importing country suffers recurring adjustment costs as its own domestic industry responds over the business cycle to variations in the level of subsidized imports.

A second theoretical possibility is in those rare instances where oligopolistic profits might be large. A country could attempt to increase its share of the potential oligopoly profits by subsidizing its own industry, either directly or indirectly. In both of these special cases, however, the best solution is an international compact on acceptable subsidization policies, rather than protectionism.

Another argument offered for protection is that the United States must restrict imports in order to protect "basic" industries. Because the U.S. economy has been characterized by certain industries since the Great Depression, the argument runs, these same industries must be protected from foreign competition to ensure continued economic growth. This argument mistakes the prospects for continued vitality

of the economy as a whole with the prospects of particular industries. So-called "basic" industries can always be identified at a point in time, but the hallmark of a dynamic economy is that basic industries can change. Most importantly, there are numerous examples of countries that have failed with the strategy of propping up weak industries, with no apparent successes.

Finally, there are, of course, legitimate national security considerations in some industries, but import restraint is a particularly inefficient method of attempting to maintain some minimum level of domestic capacity in an industry.

OBSTACLES TO COMPREHENSIVE FREE TRADE

Before concrete free-trade initiatives are proposed, the obstacles to new international commitments to free trade should be clearly identified and understood, since initiatives that do not address the real obstacles to liberalization are doomed to failure. The following discussion of these obstacles focuses on several issues: the inertia of existing trade barriers and distortions, the appeal of new trade barriers, the participation of developing countries in multilateral trade negotiations, and the presence of domestic policy constraints.

The Inertia of Existing Trade Barriers

Existing trade barriers carry a life of their own, as political inertia works against their elimination. In heavily protected sectors, adjustment to liberalized trade is especially painful unless the overall economy is expanding. As a consequence, it is imperative that free-trade initiatives be comprehensive enough to assure each country that at least some sectors of its economy will expand rapidly enough to cushion the adjustment of other sectors. Expanding sectors not only often reduce the extent of the contraction in formerly protected sectors, but also provide new opportunities for any displaced workers and resources. This strategy has worked reasonably well for the multilateral tariff reductions among industrial countries since World War II, and should be a key element in any new initiatives.

The comprehensiveness of trade liberalization, however, is itself threatened by extraordinary pressures to retain existing trade barriers. Remaining barriers have been revealed as those most difficult to eliminate, since these are the restrictions that negotiators have been forced to ignore. Nontariff barriers, in particular, pose difficult problems. Quantitative restrictions, import licensing, exchange controls, technical standards misused to restrict trade, and the like, are much more difficult to compare, to evaluate, and to negotiate than tariffs. Without strong incentives on all sides to make mutual progress toward free trade, negotiation of nontariff barriers can be excruciatingly slow and tedious. A new, formal round of multilateral

trade talks to deal with such barriers, for example, is expected by some to take several years to complete successfully, if at all.

The difficulty of negotiating reductions in nontariff barriers is exacerbated by another standard feature of international trade negotiations. Existing trade restrictions are the bargaining chips a country uses in international trade negotiations. Thus, countries are reluctant to liberalize their own trading practices for fear that their ability to obtain reciprocal liberalization from their trading partners will be reduced in the future. As a consequence, countries are in the paradoxical position of "needing" certain trade restrictions in order to eliminate others. To succeed fully, any new initiative must break through this paradox.

The Appeal of New Trade Barriers

Most countries are under strong domestic political pressure to aid one or more ailing industries. Unfortunately, quantitative and other nontariff trade barriers are becoming the policy of choice. The reasons are not complicated. Such measures are typically "off-budget," so that no explicit governmental appropriation is required to subsidize the industry. They are also often extra-legal, falling outside normal rules and restrictions of the General Agreement on Tariffs and Trade (GATT), and requiring no formal legislative action. The general political appeal of trade restrictions arises from the fact that the benefits accrue to small, identifiable groups, whereas the costs, although greater, are borne less visibly by society at large.

In addition, nontariff restrictions are sometimes welcomed by the country's established trading partners. For example, VRAs transfer implicit tax revenues from consumers in the importing country (which would be collected domestically if tariffs were used instead) to producers in the exporting countries (through the effect of restricted sales on prices). Although some progress has been made in a few areas in recent years, new international commitments that limit the discretion of individual governments to maintain or impose nontariff trade barriers are clearly needed.

Incentives for Developing Country Participation

Another serious obstacle to comprehensive trade liberalization is the problem of encouraging the full participation of developing countries. In previous multilateral rounds of liberalization, developing countries have not been required to reciprocate fully in multilateral tariff reductions by lowering their own trade barriers, and most still maintain substantial levels of both tariff and nontariff trade barriers. These countries are unlikely to participate in further liberalization as long as key sectors in which they have a comparative advantage (especially textiles) are exempted from the liberalization process.

Sustained progress in opening the capital and service markets of developing countries is not likely, for example, without accompanying progress for these countries in opening world markets for their manufactured products. Furthermore, the current trade preference schemes extended to developing countries by most industrialized countries give these countries a vested interest in existing tariff barriers in industrialized countries, since the benefit their exporters derive from the preference schemes depends upon the level of tariffs levied on goods from competing exporters.

Domestic Policy and Institutional Barriers

In some instances, trade restrictions simply reflect domestic policies. Nowhere is this more obvious than in agriculture. The absence of strong international commitments to open markets in agriculture has fostered the development of restrictive domestic policies by the EC under the Common Agricultural Policy, by the United States and other industrialized countries, and by developing countries. These costly domestic policies require an increasingly elaborate array of international restrictions on trade in agricultural products. Hence, little progress on liberalized trade in agriculture can be expected without reforms in related domestic policies. A country cannot, for example, maintain a direct price support program for a domestic agricultural product that sets the price above the price of available imports without also imposing trade restrictions on imports either through quotas or variable import levies. Otherwise, the domestic price support would be an impossibly expensive world price support.

Domestic industrial policies can pose similar barriers. Tariffs, preferential procurement, direct subsidies, preferential credit arrangements, exclusive market rights, and the like, are examples of explicit barriers to imports. Barriers can also be implicit, however. The complex and extensive relationship between the Japanese Ministry of International Trade and Industry and major Japanese domestic industries is often cited as an example of this phenomenon. Moreover, private Japanese trading companies distribute a substantial share of imports at the same time that they have very strong ties with domestic manufacturers. In some instances these ties are reinforced by shared equity or other financial interests. Not surprisingly, therefore, trading companies do not typically market imported products that compete with those produced by domestic manufacturers with whom they already trade.

The emphasis on such institutional barriers to trade can sometimes be misleading. When institutional and commercial practices are not sustained by government policy, practices that violate the fundamentals of a competitive marketplace are subject to challenge by new entrants. This suggests that when no government trade restraints are

present and no new entrants appear, existing practices may be efficient. Thus, the fundamental issue is whether and how governmental policies are used to raise artificial barriers to entry. In some instances the artificial barriers are direct and obvious (as in the official Japanese domestic monopoly in telecommunications—ostensibly to be eliminated in 1985—or the high tariffs on wood products); in others the barriers are less direct or obvious (as in the case of arbitrary technical standards or rules regarding exclusive dealerships).

A STRATEGY FOR FREE TRADE

Despite the obstacles to free trade, there are several reasons to push now for comprehensive trade liberalization. First, the trend toward increasing protectionism at the national level may actually help mobilize a consensus for a new international initiative toward comprehensive free trade. Furthermore, recovery of the global economy presents the opportunity to resist protectionist pressures and to reach just such a free-trade consensus.

There is also some evidence that many countries around the world may be willing to consider domestic policies that emphasize open markets, market incentives, and private control to a greater degree than before: members of the EC are under increasing pressure to find a less costly alternative to their current common agricultural policy; the Administration will seek agricultural reforms in 1985 farm legislation that will increase U.S. flexibility in negotiating freer trade in agriculture; and many developing countries appear to be at least more receptive to private, competitive markets. This possible change in the world temperament toward open, market-oriented policies poses the opportunity for successful new initiatives.

Finally, the President and the heads of government of major U.S. trading partners have already agreed at the Williamsburg Economic Summit to consultations on a new multilateral round of trade negotiations under the auspices of GATT. At the subsequent London Summit they agreed to seek early agreement on a new round. A multilateral round of trade talks is the most effective vehicle for successful trade liberalization.

A New Round of Multilateral Trade Negotiations

To exploit present opportunities the United States must pursue decisive, extraordinarily disciplined policies. At the most general level, a successful international strategy requires that the United States push aggressively forward on comprehensive multilateral trade negotiations under the auspices of GATT. At a more concrete level, the United States itself must be committed to comprehensive trade liberalization. In this context, comprehensiveness has several dimensions—products, factors of production, countries, and types of trade

distortions, including VRAs and various preferential treatments of domestic industry. Each of these dimensions is important to successful liberalization.

With regard to products, the United States should push especially hard for liberalized trade in agriculture, services, telecommunications equipment, advanced electronics, automobiles, textiles, wood products, and steel, to mention just some of the major problem areas. The United States has much to gain from liberalizing these areas, and developing countries in particular will have reduced incentives to participate without the promise of liberalized textile trade. In the industries above where the United States has significant restrictions—automobiles, steel, textiles, and agriculture—the costs of protection are large. In agriculture, for example, the annual cost of restrictions on sugar imports is estimated to be in excess of \$3 billion, and the consumer cost of import restrictions on dairy products is even higher.

With regard to the various types of distortions, some progress has been made in GATT in the areas of subsidies, government procurement practices, and other nontariff barriers, but a new U.S. initiative at this time could accelerate and expand agreements in these and other areas.

The Role of GATT

GATT was established in 1948 to foster liberalized trade and has sponsored several successful rounds of multilateral trade negotiations. An effective GATT is essential to further liberalization and expansion of international trade. In particular, GATT obligations can help to restrain protectionist trends around the world by providing a source of external discipline to national policies. Just as the U.S. Constitution puts interstate trading policy beyond the control of individual States, international commitments can constrain the use of tariffs and other major forms of nontariff barriers by individual countries. Moreover, because no policy is likely to be completely successful in this regard, an ambitious program of trade liberalization under GATT auspices is needed to counter the inevitable individual lapses into protectionism at the national level.

The objectives of U.S. policy toward GATT are to strengthen the existing framework in the short term and to expand the scope of the agreement in the longer term. To achieve these goals, the United States supports the work program agreed to by the GATT Contracting Parties at the Ministerial meeting in 1982. Efforts to strengthen and expand the existing framework include working parties on safeguards and structural adjustment, quantitative restrictions and other nontariff measures, and dispute settlement procedures. The United States supports the negotiation of an effective “safeguards” code that

would discipline the use of temporary import restrictions as a method of dealing with domestic industry adjustment to import competition. The continuing proliferation of quantitative and nontariff restrictions on trade is also of major concern. The working party on this issue has catalogued existing quantitative restrictions and other nontariff measures and judged their consistency with GATT principles. This information should facilitate negotiations to eliminate the restrictions, perhaps as part of the preparation for a new multilateral round of trade negotiations. Finally, a major weakness of GATT is its inability to resolve disputes effectively. A greater reliance on professional panelists to resolve disputes might lead to a more predictable settlement process less subject to control by member countries. The recommendations of the GATT Secretariat would improve the process of forming panels, as well as the implementation of panel recommendations.

The GATT Contracting Parties have discussed extension of the GATT framework into agriculture, services, counterfeit goods (and other issues of intellectual property rights), high-technology goods, and textiles. In order to bring agriculture more fully under the rules of GATT, the United States supports a reduction in quotas and licensing programs limiting agricultural imports and a general prohibition on export subsidies. The EC, however, opposes a general prohibition and believes that export subsidies should be permitted.

Although trade in services constitutes an increasing portion of international trade, it too continues to remain outside the GATT framework. Liberalization of trade in services has been slow due not only to the complexity of the subject but also to intense opposition in principle, especially among developing countries. The service industries in these countries are usually small, and the governments argue that further growth of the industries would be impossible without restrictions on foreign competition. Despite such opposition, the United States has recently persuaded other Contracting Parties to consider the issue of services under GATT auspices.

Trade in counterfeit goods has increased noticeably in recent years. In addition to the economic losses to trademark owners, trade in counterfeit goods presents potential safety and health hazards to consumers. The United States believes that GATT provides the best forum for negotiating and implementing an agreement to handle this problem and urges the formation of a working party on trade in counterfeit goods. Developing countries have opposed such a working party on the grounds that GATT is an inappropriate forum. Their underlying fear, however, is that developed countries will use rules to restrict the trade of counterfeit goods as protectionist measures to limit imports of legitimate goods. GATT Contracting Parties

agreed at the 1984 Ministerial meeting to establish an experts group on intellectual property rights in general. The group will collect information on abuses and propose alternatives for action. As required by the Trade and Tariff Act of 1984, the United States is also preparing a survey of problems around the world with intellectual property rights.

In 1982 the United States proposed that GATT examine trade in high-technology goods. As a result of opposition, the study was transferred to the OECD. Two major findings have now emerged from this study. First, open international markets are necessary to capture fully the benefits of high-technology industries. Second, restrictive trade practices are increasing trade frictions in these industries. Major issues include the role of preferential public procurement (especially in telecommunications), the role of product standards, limiting the access of domestic firms to government sponsored research, the influence of various types of government sponsored research and technology on commercial and industrial technology, and the effect of government policies on investment.

Finally, textiles remain exempt from standard GATT rules. The Multi-Fiber Arrangement, which establishes rules governing quotas for textiles, is due to expire in July 1986. A working party is examining the possibility of bringing textile trade into the GATT framework, perhaps through the negotiations on renewal of the Multi-Fiber Arrangement which began in 1985. Textile restrictions began in the early 1960s as a temporary expedient to give the textile industries in the United States and other industrial countries time to adjust to increased foreign competition but, perhaps predictably, have evolved into a more permanent obstacle to freer trade.

Secondary Strategies

A potential problem with multilateral negotiations is that they may be stalled by a relatively small group of countries. If this occurs, the United States and others may eventually be forced to resort to secondary strategies for liberalization. The new free-trade area (FTA) negotiating authority given the President offers one possible option. FTA negotiations (and less than fully multilateral negotiations in general) tend to reverse the usual incentives in international trade negotiations by making countries more eager to be among the first to agree to liberalize trade rather than among the last. The incentives for countries to be among the first to enter an FTA or a plurilateral agreement with the United States could be strong. Because no duties would be levied on intra-FTA exports of FTA members, the first entrants would enjoy substantial competitive advantages over outsiders in the large U.S. domestic market, especially if highly restricted sectors were to be included in the FTA agreement. In addition, as the

number of countries joining an FTA grows, the incentives for outsiders to join increase, because unfavorable trade diversion increases and the size of the non-FTA market decreases as the FTA expands.

One possible criticism of an FTA initiative is that it may appear to some as a regression to narrow, bilateral trade negotiations. This need not be the case. First, the possibility of an FTA strategy would be considered only if multilateral negotiations stalled. Second, an FTA initiative would not be the same as the narrow, complex trade "haggling" characteristic of the 1930s because there are GATT criteria for permissible FTAs and plurilateral agreements. Third, an FTA or plurilateral initiative would be as multilateral as the number of countries that chose to join the agreement. There is nothing intrinsically bilateral about an FTA. Again any FTA initiative would at all times be subordinated to resumed progress in multilateral trade negotiations.

Perhaps most importantly, however, the possibility of FTA or, more broadly, plurilateral negotiations offers the United States and others the option of using a free-trade instrument, rather than protectionism, as a lever against protectionist countries that are recalcitrant in fully multilateral negotiations. This distinction is important because there are several fundamental difficulties with using trade sanctions to persuade other countries to liberalize their trading practices. First, trade sanctions hurt the country that imposes them, in some instances as much as, or more than, the foreign country. Second, the foreign trading partner knows that this is the case. As a consequence, threats of trade sanctions are often not credible. Then, of course, there is always the additional threat of foreign retaliation.

In rare instances, however, the United States may be forced to use trade sanctions to persuade a particular trading partner or a group of trading partners to abandon especially restrictive trading practices. Although such sanctions raise the danger of retaliation, there may be isolated instances where this danger is minimal relative to potential gains. However, sanctions should be used only in accordance with clearly established rules, not as a pretext for protectionist actions. Thus, threat of a sanction should always be accompanied both by an unambiguous explanation of which trading practice the sanction is aimed at eliminating and by credible assurances that sanctions will be removed when the restrictive practice halts.

A sanction is more likely to succeed in an industry where the trading partner's exports to the U.S. market are more important to them than they are to the United States. Thus, trade sanctions must be carefully tailored to particular circumstances. A sanction appropriate for one issue of concern to the United States, such as the use of concessionary loans to boost exports, may be inappropriate for other

issues of similar concern, such as preferential government procurement, infringements of intellectual property rights, or cyclically varying subsidies. One would also expect strategic sanctions to be used only at the discretion of the highest policy levels of the government.

A Final Caveat

It is often assumed that opening markets abroad for U.S. exports by reducing trade barriers will necessarily improve the fundamental position of the U.S. current account deficit. This is not necessarily the case. A country's current account balance is determined fundamentally by domestic investment and saving behavior (including government) relative to investment and saving behavior abroad. As pointed out earlier, this is true because of two fundamental economic relations. First, a current account deficit, for example, is necessarily offset by a corresponding capital account surplus. Second, the capital account surplus is identically equal to the excess of domestic investment over domestic saving (including government). Thus, changes in trade barriers will affect the current account in a fundamental way only to the extent that they change saving or investment. Accordingly, the use of the U.S. current account (either with the rest of the world or with particular countries) as a measure of success in liberalizing trade is likely to lead to frustration. Comprehensive free trade is a policy objective because of the proven benefits of open markets, not because it will lead to a particular external balance.

CHAPTER 4

Health Status and Medical Care

IN 1965 THE U.S. CONGRESS enacted the medicare and medicaid programs. For the first time, the Federal Government made a major commitment to finance the medical care needs of its elderly and poor citizens. The purpose of medicare was to reduce the financial burden of illness on the elderly; the goal of medicaid was to improve the access of specific categories of the poor to medical care.

The price tag for meeting these objectives was not expected to be great. The medicare hospital insurance program was expected to cost the Federal Government \$2.8 billion in its first year (in 1983 prices), with growth to about \$8.2 billion in 1983, according to Social Security Administration actuaries.

This estimate was wrong, massively so. Federal spending on medicare benefits reached \$57.4 billion in 1983; spending for the hospital portion of medicare in 1983 surpassed the original projection by almost fourfold. Medicaid consumed an additional \$34.0 billion in 1983.

Experience with medicare and medicaid vividly illustrates the dilemma of health insurance. The goal of health insurance is to reduce the risk that consumers will face large out-of-pocket medical expenses. The means by which this is accomplished is for a third party—sometimes the Federal Government—to pay a large share of the bill. Individual consumers, however, tend to purchase more medical care when the price of additional care to them is reduced. Because of this additional demand, the cost of the insurance program is driven up. Thus, the goal and the means of health insurance are in conflict. How to resolve this conflict is the central problem of public policy toward medical care.

Rising costs are not limited to public health insurance programs. Most non-elderly people in the United States have private health insurance, usually provided as an employment-related fringe benefit. The percent of gross payroll spent by employers for health benefits has increased by as much as 50 percent from 1976 to 1983. The consequence of this increase is lower real wage increases for employees.

There is also widespread concern that the unit costs of medical care are too high. The cost of a day in the hospital was \$369 in 1983,

up from \$41 in 1965 (\$119 in 1983 prices), and the average cost per hospital admission increased from \$311 (\$901 in 1983 prices) to \$2,789 over the same period.

Calls are heard to curb the increasing costs of medical care. Policy-makers have an array of options, ranging from increased regulation to unfettered competition, from which to choose.

Therefore, on the 20th anniversary of medicare and medicaid, it is appropriate to review the present condition of public and private health insurance programs in the United States. Positive steps can be taken toward the goals of delivering appropriate medical care at reasonable prices. Policies must be chosen carefully, however, to promote consumers' incentives for healthy behavior, reasonable levels of health insurance coverage, and careful use of medical care services. Producers must also face incentives to deliver medical care services efficiently at competitive prices.

HEALTH STATUS OF THE AMERICAN POPULATION

The life expectancy of Americans has improved steadily since 1900, when the average American could expect to live for 47.3 years. At the turn of the century, females lived 2 years longer than males, on average, and blacks lived 33.0 years, substantially fewer than the 47.6 years for whites. By 1982 the average life expectancy had increased to 74.5 years. The male-female gap had widened to 7.4 years, but the black-white gap had narrowed to fewer than 6 years.

The factors mainly responsible for increases in life expectancy during the first half of this century—improved sanitation, heating, and other amenities, along with significant breakthroughs in immunization against communicable diseases—contributed most significantly to the survival of infants and children. For adults over 65, life expectancy statistics show only modest gains during this period, from 11.9 years in 1900 to 13.9 years in 1950. As of 1982, however, the life expectancy of older adults had increased to 16.8 years.

Increased life expectancy at older ages, along with declining birth rates, has led to the well-known "graying" of America. The age distribution of the population has shifted markedly since 1950, when the over-65 population represented 8.2 percent of the total population. In 1983 the elderly accounted for 11.7 percent of the total population. Because the elderly spend about 3½ times as much per capita on medical care as do the non-elderly, population aging has profound implications for medical care spending. Greater demands are placed on medicare and on that part of the medicaid program that finances long-term care for the elderly poor.

Increasing life expectancy at older ages is evidence of improving health status of the American population. Additional evidence is that infant mortality rates and fetal death rates have fallen since 1950. (Infant deaths occur within the first year of life; fetal deaths are the deaths of fetuses of 20 weeks or more gestation.) Large declines have occurred for both blacks and whites. However, in 1981 (the latest year for which data are available) the infant and fetal death rates for blacks remained substantially above those for whites.

Between infancy and age 65, there are distinct differences in the causes of death by age, sex, and race. The leading cause of death for whites and blacks of both sexes below the age of 15 is accidents. In fact, accidents are the leading cause of death below the age of 45. From ages 15 to 24, accidents are the leading cause of death for whites, whereas homicide is the leading cause of death for blacks. Cancer is the leading cause of death for black females between the ages of 25 and 44 and for white females between the ages of 25 and 64. After age 65, heart disease is the major cause of death.

The dominant role of accidents and homicides makes clear that behavioral factors play an extremely important role in mortality. Moreover, because many of these deaths occur at early ages, accidents and homicides have a disproportionate effect on life expectancy at birth.

Other than through mortality statistics, there are problems in measuring the public's health status. For example, people's willingness to report certain nonfatal diseases may change over time. The health status indicators must also be adjusted for the age distribution of the population, because the population is aging and many diseases appear more frequently among the elderly.

Even with these qualifications in mind, it is useful to examine trends in the self-reported health status of the American population from nationwide surveys of households. One measure of health status is "restricted activity days," which are days that a person cuts down on his or her usual activities because of illness or injury that occurred during the 2 weeks prior to the survey. A day spent in bed at home or in the hospital ("bed-disability day") is, of course, a restricted activity day.

Surveys indicate that the number of restricted activity days decreased among all age groups from 1957 until the middle or end of the 1960s, after which the trend has reversed. The number of bed-disability days per person fell during the late 1950s and early 1960s and has remained roughly constant since then. Some increase occurred within the 45-to-64 age group.

Another health status indicator is limitations of activity caused by chronic conditions that began more than 3 months prior to the survey. A striking trend emerges: the proportion of males aged 45 to

64 who were unable to perform their major activity increased from 7.2 percent of that age group in 1969 to 11.5 percent in 1981. Smaller, but very noticeable increases are shown for this activity limitation among other males and females aged 45 to 64.

Trends in reported activity limitations may be explained, in part, by the expansion of disability cash benefits and of the number of beneficiaries. Between 1965 and 1975, cash payments to disabled persons increased from \$9.7 billion (\$28.1 billion in 1983 prices), or 1.1 percent of gross national product (GNP), to \$33.9 billion (\$58.0 billion in 1983 prices), or 2.2 percent of GNP. During the same period, the number of social security disability insurance beneficiaries grew by 150 percent while the covered work force grew by only 55 percent. It appears that persons with chronic conditions can, in recent years, leave the work force with greater disability benefits, whereas earlier they might have continued to work. Changes in mortality patterns may also partly explain increases in activity limitations. As mortality rates drop, some people who live longer have chronic diseases that cause disability.

TRENDS IN MEDICAL CARE SPENDING AND USE

In 1983 Americans spent \$355.4 billion on medical care. Table 4-1 shows that hospital care accounted for 47.0 percent of "personal health care spending" (a category that includes most payments to medical care providers) in 1983. Following hospital care in importance were physicians' services and nursing homes with 22.0 and 9.2 percent, respectively, of personal health care spending.

Fifty-five percent of the money spent on medical care comes from private funds paid directly by consumers and by private insurers. Of the private funds, insurance is the dominant mode of paying for hospital services and, to a lesser extent, for physicians' services. Consumers pay for most drugs and dental services out of their own pockets. Private insurance provides little coverage for nursing home care.

Government funds constituted 41.9 percent of total medical care spending in 1983, of which the Federal Government contributed 69.0 percent. Federal spending dominated that of State and local governments in most personal health care categories and in medical research, while State and local governments were dominant in expenditures for construction and public health activities.

The percentage of medical care spending devoted to hospital and nursing home care has risen. This trend has implications for how these services are financed. Hospital and nursing home care occur infrequently and are expensive; both considerations tend to increase consumers' demands for third-party reimbursement. Thus, it is not

TABLE 4-1.—National health expenditures by type of expenditure and source of funds, 1983

[Billions of dollars]

Type of expenditure	Total	Private funds					Government funds		
		Total	Consumer			Other ¹	Total	Federal	State and local
			Total	Direct payment	Private insurance				
TOTAL	355.4	206.6	195.7	85.2	110.5	10.9	148.8	102.7	46.1
Health services and supplies	340.1	199.8	195.7	85.2	110.5	4.1	140.3	96.8	43.5
Personal health care	313.3	188.8	185.2	85.2	100.0	3.7	124.5	93.0	31.5
Hospital care	147.2	68.8	67.3	11.1	56.2	1.5	78.4	60.6	17.8
Physicians' services	69.0	49.7	49.7	19.6	30.1	(²)	19.3	15.6	3.7
Dentists' services	21.8	21.2	21.2	13.9	7.4		.6	.3	.3
Other professional services	8.0	5.6	5.5	3.3	2.1	.1	2.5	1.9	.5
Drugs and medical sundries	23.7	21.6	21.6	18.4	3.2		2.1	1.1	1.1
Eyeglasses and appliances	6.2	5.2	5.2	4.5	.7		1.0	.9	.1
Nursing home care	28.8	14.9	14.7	14.4	.3	.2	14.0	8.1	5.9
Other personal health care	8.5	1.8				1.8	6.6	4.5	2.1
Program administration and net cost of private health insurance	15.6	10.9	10.5		10.5	.3	4.6	2.6	2.0
Government public health activities	11.2						11.2	1.2	10.0
Research and construction of medical facilities	15.3	6.8				6.8	8.4	5.9	2.6
Research ³	6.2	.4				.4	5.8	5.2	.6
Construction	9.1	6.5				6.5	2.6	.7	2.0

¹ Spending by philanthropic organizations, industrial in-plant health services, and construction financed privately.² Less than \$100 million.³ Research and development expenditures of drug companies and other manufacturers and providers of medical equipment and supplies are excluded from "research," as the value of their research is included in the expenditure class in which the product falls.

Source: Department of Health and Human Services, Health Care Financing Administration.

surprising that third-party payments increased from 67.3 percent of hospital care and nursing home spending in 1950 to 85.6 percent in 1983.

Another trend has been an increase in the Federal share of personal health care spending from 3.4 percent in 1935 to 29.7 percent in 1983. The largest portion of this increase occurred between 1965 and 1970 and was accompanied by a fall in the share of private sector payments. This drop appeared almost entirely as a decline in consumer direct payments.

Table 4-2 shows aggregate and per capita trends in medical care spending from 1965 to 1983. In 1965 Americans spent \$207 per capita (\$599 in 1983 prices) on medical care. Total medical care spending in that year accounted for 6.1 percent of GNP. By 1983 medical care spending had grown to \$1,459 per person. Despite an expansion in the economy during this period, medical care spending consumed an increasingly large share of GNP, reaching 10.8 percent in 1983.

TABLE 4-2.—*National health expenditures, by source of funds and as percent of gross national product, selected years, 1965–83*

Year	Total			Private funds			Government funds		
	Amount (dollars)		Percent of GNP	Amount (dollars)		Percent of total	Amount (dollars)		Percent of total
	Total (billions)	Per capita		Total (billions)	Per capita		Total (billions)	Per capita	
1965.....	41.9	207	6.1	30.9	152	73.8	11.0	54	26.2
1970.....	75.0	350	7.6	47.2	221	63.0	27.8	130	37.0
1975.....	132.7	590	8.6	76.3	340	57.5	56.4	251	42.5
1980.....	248.0	1,049	9.4	142.2	601	57.3	105.8	448	42.7
1981.....	285.8	1,197	9.7	164.2	688	57.4	121.7	510	42.6
1982.....	322.3	1,337	10.5	186.5	774	57.9	135.8	564	42.1
1983.....	355.4	1,459	10.8	206.6	848	58.1	148.8	611	41.9

Note.—Per capita amounts are based on July 1 Social Security Area population estimates, which include the resident U.S. population and that of the outlying territories, plus Federal military and civilian employees and their dependents overseas, plus an estimate of the census undercount.

Source: Department of Health and Human Services, Health Care Financing Administration.

Neither the level nor the rate of increase in medical care spending in the United States is unique compared with other industrialized countries. For example, Sweden spent 8.7 percent of its GNP on medical care in 1975 and 9.7 percent in 1980. Comparable figures for the United States are 8.6 percent in 1975 and 9.4 percent in 1980. Other countries have attempted, for the most part unsuccessfully, to control medical care spending by regulation rather than through market forces. One exception appears to be the United Kingdom, where strict central controls have limited medical care spending to 5.6 percent of GNP in 1975 and 5.8 percent in 1980. This apparent success masks major costs not measured in the GNP data, however. For example, consumers in the United Kingdom's national health system face long waiting times for nonemergency hospitalization.

FACTORS RESPONSIBLE FOR RISING MEDICAL CARE EXPENDITURES

The factors responsible for rising medical care expenditures can be attributed either to changes in price or in quantity. Price changes can be subdivided further into general inflation and increases unique to the medical sector. Quantity changes can be partitioned into three elements: changes in population, in quantity per capita, and in the nature of services provided per visit or per admission.

General inflation (measured by changes in the GNP implicit price deflator) accounted for 51.7 percent of the rise in hospital inpatient spending between 1971 and 1981. The remaining sources of increased hospital spending were increases in hospital input prices in excess of increases in the GNP deflator, 11.7 percent; population growth, 7.2 percent; growth in admissions per capita, 8.6 percent; and growth in real expenses per admission, 20.8 percent. Real ex-

penses per admission are a proxy, albeit an imperfect one, for changes in the nature of hospital care.

The share of hospital spending growth attributable to rising real expenses per admission increased to approximately 39.4 percent from 1981 to 1982 and 46.1 percent from 1982 to 1983. Those increases occurred at a time of lower general inflation and flat or declining demand for hospital admissions. Real spending growth per admission fell back to 26.7 percent of hospital spending growth in the first 6 months of 1984, compared with the same period in 1983. This rate remains above the average rate from 1971 to 1981.

General inflation caused 58 percent of the increase in expenditures for physicians' services from 1971 to 1981. Other causes were the price index for physicians' fees in excess of the GNP deflator, 10 percent; visits, 5 percent; and real expenses per visit, 27 percent.

Some analysts have emphasized the fact that general inflation caused most of the growth in medical care spending. Although technically correct, this view is seriously misleading. If spending grew only 2 percentage points faster than inflation, real expenses per unit of service would quadruple during the average person's lifetime, with other factors being constant.

The significance of these numbers is that the extraordinary increase in medical care expenditures results largely from changes in the nature of the product: the scope, the complexity, and hence, the prices of medical care products have risen in relation to those of other industries. In the hospital sector, this trend reflects the growing number of hospitals that provide highly specialized services. In the physicians' services sector, the volumes of out-of-hospital laboratory tests and surgical procedures have been growing much faster than the number of physicians' visits.

TRENDS IN USE OF MEDICAL CARE SERVICES

Significant trends have occurred since 1964 in the use of particular medical services by different demographic groups. Hospital days of care fell from 1964 to 1981 for younger age groups, but rose for older people, especially those over 65. This latter increase may be attributed, in part, to the medicare program, which has provided hospital insurance coverage for the elderly since 1966.

In 1964 poor people (family income under \$2,000) had the lowest rate of physicians' visits. Poor people (family income less than \$5,000 in 1976 and less than \$7,000 in 1981) had the highest rate of physicians' visits in 1976 and 1981. The hospital discharge rate among poor people increased, while discharge rates among other income groups fell. These trends may be attributed, in part, to a variety of

Federal programs, including medicaid, which have improved the access of poor people to physicians and hospitals.

DOES MORE MEDICAL CARE PRODUCE BETTER HEALTH?

Trends in medical care spending parallel improvements in some measures of health status in the United States. It would seem natural, then, to assume that more medical care produces better health. Spending some amount of money on medical care is indisputably worthwhile. But this does not imply that, beyond some point, spending more money on medical care necessarily leads to further improvements in health.

Statistical studies, for the most part, indicate that differences in mortality and sickness among States or regions in the United States cannot be explained by differences in the distribution of medical care resources. One such study examined the relationship between an area's medical resources and physiological measures of health. In the context of the health conditions and levels of resources considered, it was found that additional medical resources made little or no contribution to a person's health.

The strongest evidence that an across-the-board increase in medical care use will not improve the health of the average person comes from the RAND Corporation health insurance experiment. About 4,000 nondisabled people between the ages of 14 and 61 were randomly assigned to insurance plans for 3 or 5 years. One plan provided free care; the others required enrollees to pay a share of their medical bills. The experiment showed that when cost-sharing was higher, visits to physicians and adult hospitalizations were fewer. However, the only statistically significant positive health effect of free care for the average participant was for corrected vision. Other measures of health were similar among the cost-sharing groups and the free care group.

Numerous studies of Health Maintenance Organizations (HMOs), which are prepaid medical care plans, also show that more medical care does not necessarily lead to better health. Prepayment gives physicians an incentive to practice conservative styles of medicine. As a result, enrollees in prepaid plans use up to 40 percent fewer hospital days than enrollees in fee-for-service health insurance plans. There is no evidence that the conservative style of medical care in prepaid plans is inferior to that in the fee-for-service sector.

Additional spending for some types of medical care makes a significant positive contribution to health. Research conducted in the United States and other countries has shown that hypertension (high blood pressure) can be controlled by appropriate treatment. This

result is significant because hypertension is a key risk factor in cardiovascular disease, which accounted for approximately half of all U.S. deaths in 1980. Other studies have shown that hypertension control has improved significantly in recent years. Improved rates of hypertension control have been cited as a factor responsible for the dramatic decline in age-adjusted death rates for heart disease, which fell from 253.6 per 100,000 population in 1970 to 188.5 in 1983.

Evidence that poor people with hypertension can benefit from free medical care comes from a "natural experiment" in which some adults were terminated from the California medicaid program in 1982. Blood pressure levels among terminated people with hypertension increased significantly during the 6-month study period, compared with a control group. The RAND health insurance experiment also found that poor people with high risk of hypertension benefited from free medical care.

A growing consensus also suggests that infant and prenatal care can improve health outcomes. One study showed that neonatal death rates (deaths of infants in the first 28 days of life) were reduced by the medicaid program. Another study found that women who seek medical care earlier during pregnancy are less likely to deliver infants with low birthweights. This finding is significant because women covered by medicaid tend to seek medical care earlier than those with no insurance coverage.

Evidence from these studies, taken together, points to the following conclusion. An across-the-board increase in medical care spending does not appear to be justified. However, additional medical intervention does produce positive benefits for some conditions and at-risk populations.

THE EFFECTS OF LIFESTYLE ON HEALTH

If the effectiveness of additional medical care in producing better health is questionable, the opposite can be said about the importance of lifestyle factors such as smoking, consumption of alcohol, and diet. Studies of middle-aged men have identified three risk factors—smoking, cholesterol, and blood pressure—as the major determinants of the risk of death from any cause. These factors are all influenced by a person's lifestyle.

A number of investigators have estimated that 30 percent, or more, of coronary heart disease deaths can be attributed to cigarette smoking. Smoking is the major single cause of cancer deaths in the United States, and it is a contributing factor to deaths from stroke and emphysema. In fact, the U.S. Surgeon General calls it "the chief, single avoidable cause of death in our society, and the most important

public health problem of our time." The total annual U.S. mortality from smoking is estimated to exceed the number of Americans killed in battle during World War II.

According to one estimate, the total direct medical care cost of smoking was \$12.8 billion in 1972 (using 1983 prices). The discounted value of lost earnings attributable to sickness or death related to smoking was \$31.1 billion. The total cost for smoking-induced illness represented 10.9 percent of all medical care costs in 1972. Focusing on the smoking-induced direct costs of cancer, there was a marked increase from 1972 to 1980—from \$1.67 billion to \$3.15 billion (in 1983 prices).

Alcohol abuse also imposes enormous costs. Direct medical care costs attributable to alcohol abuse were estimated to be \$18.6 billion in 1971 (1983 prices); discounted costs of lost production from this cause were \$33.4 billion. Alcohol abuse also contributed to motor vehicle accident losses of \$10.5 billion and violent crimes that cost \$3.3 billion.

PUBLIC POLICY TO ENCOURAGE HEALTHY BEHAVIOR

Evidence shows that people can improve their health if they adopt healthy lifestyles. It would be inappropriate, however, to conclude from this evidence that government policy should attempt to promote healthy behavior. The legitimacy of public action rests on a finding that private markets do not provide incentives for individuals to adopt healthy behavior in appropriate situations. This may occur if consumers do not have access to relevant information or if there are externalities. In the first case, the government has a legitimate role in providing information, but the case of externalities is more complicated.

Negative externalities arise if the behavior of one individual imposes costs on other individuals. An example is unsafe driving, which leads to accidents that may involve other people. Cigarette smoking is another example, in which the behavior of individual smokers creates negative externalities through smoke pollution.

These negative externalities can be affected by taxing the products that cause them. For example, the Federal excise tax on distilled spirits will be raised from \$10.50 per proof gallon (64 ounces of ethanol) to \$12.50 on October 1, 1985. The Federal excise tax per package of cigarettes was raised from 8 to 16 cents by the Tax Equity and Fiscal Responsibility Act of 1982. This provision is due to expire later this year when the Federal cigarette tax will revert to its old level. Several studies have shown that consumption of alcoholic beverages and cigarettes falls if the prices of these products are increased by an excise tax.

The problem of externalities is sharply distinct from the problem of costs imposed on the smoker by his or her own behavior. These costs affect other people if the smoker's health insurance premium is not increased to reflect the expected additional health costs of smoking. Some individual insurance policies currently practice risk-rating for poor health habits. In one instance the insurance company gives a 10 percent discount to individuals who report that they do not smoke. Automobile insurance policies use age, sex, and previous accident history, among other factors, to distinguish among risks. Similar rating methods might be applied to the health costs of alcohol.

The role of the Federal Government in this area should be to ensure that legal barriers are not imposed to restrict the ability of private insurers to distinguish among risks. In one instance an active policy may be appropriate. This concerns premiums for enrollees in the Federal Employees Health Benefits Plan, the Nation's largest, with approximately 9.2 million enrollees and dependents. The premium for this health insurance plan might be adjusted to reflect the excess health costs attributable to smoking and drinking.

HEALTH INSURANCE AND MEDICAL CARE COSTS

Studies suggesting that an increase in medical care use would do little to improve the health of the average person might justify some concern that rapidly rising medical care costs are "excessive," but they could hardly explain the widespread belief among both analysts and policymakers that the medical care system is in a state of distress. In other industries the principle of consumer sovereignty is generally the best guide to determine how many resources should be allocated to the industry. Why doesn't this principle apply to the medical care industry?

Medical care is different from other major industries because only about one-quarter of the cost of medical care is paid directly by consumers. The remainder, excluding a small percentage of philanthropy, is paid by public and private health insurance programs. Private health insurance arose because consumers of medical care are generally uncertain about when they are going to require medical attention. This uncertainty and the expensive nature of medical care create a large degree of risk. In order to eliminate much of this risk, consumers buy insurance for their medical care needs. By paying a fixed amount each month, consumers protect themselves from large medical costs.

Thus, health insurance serves a useful function in the economy. However, the benefits of health insurance can be offset if the policy premium is not based on expected medical care costs incurred under

the policy by specific risk classes of consumers. If premiums are not risk-rated, then the costs of each individual's behavior are spread throughout the insurance pool and are negligible to the individual. Because the benefits of using more medical care, however slight, accrue to the individual, each person will have little incentive to use medical services carefully and to buy services from the most cost-effective providers.

Perfect risk-rating for every individual would be exceedingly complex. Nevertheless, certain observable characteristics—such as smoking—can be used to distinguish among health risks for the purposes of determining health insurance premiums. To the extent that such practices are not followed, the distorting effect of health insurance on individual choice is magnified by another feature of the health insurance policy. Policies that subsidize the cost of additional services or more expensive services will increase the consumer's incentives to use medical care without regard to costs. Because many policies provide such arrangements, including free care at the point of purchase, the undesirable effects of imperfect risk-rating are magnified. Moreover, the subsidy for additional services reduces providers' incentives to hold down their prices and to control the complexity of their products. Price increases make it more difficult for uninsured consumers to purchase medical care and may explain, in part, why public insurance programs have arisen.

Numerous studies, conducted in the 1960s and 1970s, showed that demand for medical care services is directly related to the level of health insurance coverage. Data sources for these studies were regional (often statewide) aggregates, individual consumer data collected by surveys, and several "natural experiments" in which the level of cost-sharing was changed for a particular group of consumers. All of these studies showed that total medical expenditure per capita was greater when cost-sharing was lower, although estimates differed among studies.

Reliable estimates of the impact of insurance on demand for medical care services have been provided by the RAND health insurance experiment. Interim results from the RAND experiment show that total medical expenditure per capita rises steadily as the fraction of the bill paid by the family falls. Controlling for other determinants of medical care spending, individuals with full insurance coverage spent approximately 50 percent more than individuals in families that paid 95 percent of the bill.

Individuals with health insurance may choose more expensive providers than those without insurance, either because the insured individual demands more complex services or devotes less time to searching for cost-effective providers. One study using 1963 data

suggested that complete insurance coverage would raise the hospital room and board price by 23 percent and the price of the physician selected by 18 percent, compared with the prices of hospitals and physicians chosen by persons with no insurance. This finding has not been substantiated by experimental data, however.

Several studies have shown that physicians' styles of practice are related to the average level of health insurance coverage. In one instance, it was found that more extensive insurance coverage may lead physicians to provide more services per visit or to itemize charges that were previously included in a single professional fee. Another study calculated that insurance was responsible for more than half of the rise in hospital prices from 1958 through 1967. This contrasts with general inflation, which accounted for only 10 percent of the increase.

Current insurance policies leave the consumer little or no incentive to find cost-effective suppliers. Nearly 100 percent insurance coverage weakens the concept of a competitive medical care market. Such high levels of insurance permit hospital prices to rise much faster than prices in less insured markets for drugs and dental and physician services. This suggests that health insurance creates a "vicious cycle" in which insurance drives up prices, causing consumers to demand more insurance to protect themselves against large health care bills, which leads to further price increases.

Finally, the purchase of health insurance is heavily subsidized by the tax system. Even if perfect risk-rating were achieved and the use of additional services were not encouraged by the insurance policy, the tax subsidy would be a subject of public policy concern.

THE TAX SUBSIDY FOR PRIVATE HEALTH INSURANCE

Private health insurance is a relatively recent phenomenon in the United States. Prior to World War II the vast bulk of the population did not have such protection. However, in the 1940s and 1950s the spread of employment-related health insurance was given special impetus after the Internal Revenue Service ruled that employer health insurance contributions were excluded from the wage base for determining income and social security taxes. Recent estimates indicate that about 82 percent of the population has private health insurance and 85 percent of private health insurance is employment-related.

The tax exclusion can be viewed as a special Federal subsidy for the purchase of employment-related health insurance. From this perspective, the exclusion reduces the price of insurance to employed consumers and thereby provides an incentive for employees to purchase more health insurance than they would if they were using taxable income.

Several studies have used various measures of the tax subsidy to obtain estimates of the responsiveness of the demand for health insurance to price changes. All have concluded that the demand for health insurance would fall if the tax subsidy were reduced.

REFORMING THE TAX TREATMENT OF HEALTH INSURANCE BENEFITS

Several policies have been proposed to reform the tax treatment of health insurance benefits. One proposed by the Administration in 1983, and included in the Treasury Department's 1984 tax proposal, would limit tax-free health benefits paid by an employer to \$175 per month for a family plan and \$70 per month for individual coverage. These limits would be indexed to increase yearly in proportion to the rise in the consumer price index.

Some employers with contributions over these limits would reduce their contribution to health benefits and increase cash wages or other benefits. Employers might also offer employees a choice of health care plans, with some of the plans having premiums below the limit. Both of these strategies would affect total health insurance premiums and, therefore, medical care costs. In addition, there would be a revenue effect. The Treasury Department estimates that a tax cap imposed on January 1, 1987, would produce approximately \$11 billion in additional income and payroll taxes in fiscal 1988.

The tax cap proposal might also improve the efficiency of the group health insurance market by encouraging employers to make a fixed contribution to the health insurance premium. One study showed that companies currently following this policy have lower premium costs than companies that contribute a level percent (including 100 percent) toward the health insurance premium. This evidence implies a more careful plan choice by employees who have to pay for additional premium costs out of their own pocket.

INDEMNITY INSURANCE AND PREFERRED PROVIDER ORGANIZATIONS

Even if the tax subsidy for health insurance were reduced or eliminated, health insurance would have a distorting effect on medical care markets, as long as the insurance policy subsidizes the costs of additional medical services. Most health insurance policies currently incorporate this undesirable feature. However, some insurers and self-insured employers are experimenting with indemnity insurance, in which the insurance company makes a fixed payment per unit of care. An indemnity payment provides protection against risk without encouraging the consumer to choose expensive providers. The reason is that the cost of services in excess of the indemnity is paid entirely by the consumer.

Ideally, indemnity payments would be based on episodes of illness, rather than units of medical care. This system would reduce the tendency of insured consumers to use additional services as well as to choose expensive providers. However, the difficulty of defining illness might make an ideal system exceedingly complex. Therefore, indemnity payments based on units of care may represent an acceptable, albeit imperfect, alternative.

Private indemnity plans typically allow providers to bill consumers for amounts above the indemnity. However, some insurers have expressed an interest in establishing agreements with providers who will accept the indemnity as payment in full. The insurer would channel patients to these providers. This is the basis of the preferred provider organizations that are springing up around the country in increasing numbers. A preferred provider organization represents a method for determining the insurer's indemnity payment at a level equal to the full-billed charge of the low-priced providers. In practice, other criteria, such as quality, can also be used to select the preferred providers.

Many employers have expressed an interest in the preferred provider organization concept as a means to control their soaring health benefit costs. The major barrier to the development of preferred provider organizations appears to be restrictive State insurance laws. Fortunately, a number of States have passed enabling legislation that permits the development of preferred provider organizations.

PUBLIC POLICY TOWARD DISCOUNTS

Although the basic preferred provider organization concept does not involve a discount, i.e., payment less than the hospital's full-billed charge, many insurers are attempting to negotiate discounts as part of the preferred provider organization arrangement. If successful, they will join some of the Nation's 90 Blue Cross and Blue Shield plans, which have already obtained discounts from hospitals. Many HMOs have also negotiated hospital discounts.

These discounts have become an important public policy issue for two reasons. First, hospitals claim that discounts force them to shift costs by raising charges to other insurers. This has led to suggestions that discounts be banned in favor of so-called all-payers rates, where all insurers would pay equal rates. Second, some critics have claimed that the size of the Blue Cross discount appears to be related to, and is perhaps a consequence of, Blue Cross' relatively large market share. Noting this relation, the less concentrated commercial insurance industry has sought unsuccessfully to obtain relief from antitrust laws that prohibit joint insurance company negotiations with hospitals.

There is little economic justification for banning discounts. All-payers rates would reduce the competitive pressure on both insurers and hospitals to control costs. If third-party payers can negotiate discounts, the whole system may benefit. The reason is that when one insurer negotiates a discount, cost-shifting is not the only possible outcome. The discount may also reduce the hospital's net operating margin; the hospital's operating efficiency may improve; and the level of real expenses per admission may fall. All of these outcomes might be viewed as positive responses. In particular, because hospital costs are artificially inflated by insurance, some reduction in real expenses per admission may be desirable.

This does not imply, however, that commercial insurers should be encouraged to negotiate together for a discount. In the first place, a large market share is not necessary in order to negotiate a discount. Many HMOs recently have negotiated hospital discounts even though their market shares are small relative to that of Blue Cross. Second, any insurer, regardless of its size, can form a preferred provider organization. Through the preferred provider organization, the insurer can selectively determine its payments to hospitals so that hospitals with excessively high costs will lose customers in the marketplace. Third, giving the Federal Government's blessing to countervailing market power sets a dangerous precedent. Countervailing power arguments could, for example, be used by hospitals seeking to band together to escape relief from legitimate but vigorous price pressure from the insurance industry.

The large market shares commanded by Blue Cross plans are most probably not attributable to anticompetitive conduct by those plans. State insurance laws usually exempt Blue Cross' policyholders from State taxes on insurance premiums. These taxes generally range from 2 to 4 percent of premiums. This gives Blue Cross a competitive advantage over its commercial rivals. Two empirical estimates suggest that differences in premium tax rates may contribute to Blue Cross' market share.

Several studies have indicated that Blue Cross plans with premium tax advantages have relatively high administrative costs and exhibit other characteristics indicative of poor market performance. Although insurance regulation is a matter best left to the States, these studies suggest that competition among health insurers might be promoted if tax advantages favoring Blue Cross were reconsidered by the States.

THE ROLE OF INFORMATION IN MEDICAL CARE MARKETS

Most experts agree that, for the medical care market to function properly, consumers must have the right incentives and they must be

informed about the available choices. Critics of pro-competition medical care proposals often point to consumer information as the weak link in the proposal.

Such objections miss the point that a competitive medical care system would tend to produce more reliable information than the present one. For example, only 29 percent of the participants in the RAND health insurance experiment realized that the following statement is false: "If you have to go into the hospital, your doctor can get you into any hospital you prefer." When the same statement was presented to a group of more than 5,000 employees in Minneapolis, where many employees have a choice among competing HMOs, researchers found a significantly higher percentage of correct answers. This suggests that consumers in Minneapolis are aware that choosing a closed-group HMO limits one's ability to choose any hospital.

One area where information is currently poor concerns the prices charged by different providers. Inadequate price information is, to a large extent, a wound that the health care system has inflicted on itself. Most price advertising of medical services has been banned by State laws or regulations, as a result of organized medicine's determined effort to ban such advertising. Evidence shows that bans on advertising have raised the prices of eyeglasses, eye examinations, and prescription drugs. Recent court rulings, however, have substantially lifted these prohibitions.

It should also be pointed out that not all consumers have to be perfectly informed for markets to function effectively. If enough people are well informed, the remainder can judge medical care quality by observing price differences in the market.

Finally, the problems of weak incentives and poor information are related: When consumers have complete insurance, they have little reason to shop for low-priced providers and, thus, they will be poorly informed about medical care prices. This point is substantiated by a survey of individuals regarding their health insurance premiums. People with nongroup insurance coverage were more likely than those with group insurance to respond correctly that they paid out-of-pocket premiums. This occurs because nongroup policyowners are more likely to purchase the health insurance policy themselves; thus, they have a stronger incentive to learn about the price of the policy.

MEDICARE: PUBLIC HEALTH INSURANCE FOR THE ELDERLY

In 1983, spending for the medicare program benefits was \$57.4 billion. This represented 46 percent of government personal health care spending in 1983 (Table 4-3). Medicare has expanded at a rapid rate since 1967, when it consumed \$4.5 billion (\$12.3 billion in 1983 prices).

TABLE 4-3.—*Sources of funds for personal health care expenses, selected years, 1950-83*

(Billions of dollars)

Year	Total	Private funds			Government funds		
		Direct payment	Private insurance	Other	Medicare	Medicaid ¹	Other
1950.....	10.9	7.1	0.9	0.3	.....	.....	2.4
1960.....	23.7	13.0	5.0	.5	.....	.....	5.2
1965.....	35.9	18.5	8.7	.8	.....	.....	7.9
1970.....	65.4	26.5	15.3	1.1	7.1	5.2	10.1
1975.....	117.1	38.0	31.2	1.6	15.6	13.5	17.2
1980.....	219.1	62.5	67.3	2.6	35.7	25.2	25.8
1981.....	253.4	70.8	78.8	3.0	43.5	29.0	28.4
1982.....	284.7	77.2	90.8	3.4	51.1	31.3	31.0
1983.....	313.3	85.2	100.0	3.7	57.4	34.0	33.1

¹ Includes medicaid purchase of medicare coverage for eligible medicaid recipients.

Source: Department of Health and Human Services, Health Care Financing Administration.

The impending crisis in medicare concerns the Hospital Insurance Trust Fund, which finances hospital, home health, and skilled nursing care for 30 million elderly and disabled persons. Spending from the trust fund is expected to grow at the rate of 11.8 percent per year from fiscal 1985 through fiscal 1995. Given the projected growth of revenues, the trust fund balance is expected to decline, starting in 1990. Under projections developed by the Congressional Budget Office, the trust fund will be exhausted in 1994. It will face a negative balance of \$56 billion in 1995 and even larger deficits in following years. Therefore, it is clear that major reforms are required to save the medicare program from financial insolvency. Fortunately, however, policymakers have time to consider carefully the proposed solutions to medicare's financial crisis.

MEDICARE BACKGROUND INFORMATION

Medicare consists of two parts. Hospital insurance, also called Part A, covers 90 days of hospital care per spell of illness and allows an additional 60 reserve days to be used over the beneficiary's lifetime. Part A also covers 100 days of skilled nursing facility care per spell of illness and, since 1980, an unlimited number of home health visits. Hospital inpatient services are subject to a deductible equal to the cost of a day of hospital care (which increased from \$356 to \$400 on January 1, 1985) and coinsurance rates of one-fourth of the deductible for days 61 to 90 of hospital care, one-half of the deductible for each reserve day, and one-eighth of the deductible for days 21 to 100 of skilled nursing facility care.

Supplementary medical insurance, also called Part B, helps beneficiaries pay for physician and other outpatient care. Part B is a voluntary program open to almost any citizen who is over 65 or disabled.

Ninety-seven percent of Part A participants are also in Part B. Services covered by medicare Part B are subject to a \$75 annual deductible and 20 percent cost-sharing. Medicare is administered by the Health Care Financing Administration of the Department of Health and Human Services.

The principal source of funding for the Hospital Insurance Trust Fund is payroll tax contributions, at rates periodically modified by the Congress. The trust fund is financed on a pay-as-you-go basis, that is, current workers pay the costs of current beneficiaries. The Supplementary Medical Insurance Trust Fund is funded primarily through premiums from beneficiaries and general revenue contributions. The 1984 premium was \$14.60 per month, which was raised to \$15.50 per month on January 1, 1985. These calendar year rates were projected to equal 25 percent of the supplementary medical insurance program costs of elderly beneficiaries, as required by the Social Security Amendments of 1983.

MEDICARE PHYSICIAN REIMBURSEMENT

Medicare reimbursement for Part B services is based on "reasonable" charges. Private insurance carriers that administer the Part B program determine the reasonable charge by comparing the amount actually billed with the billing physician's customary charge and the locality's prevailing charge. The lowest of these three amounts for any claim submitted is the reasonable charge. After the Part B deductible is met, medicare generally pays 80 percent of the reasonable charge and the beneficiary is responsible for the remaining 20 percent.

Increases in reasonable charges are limited by the medicare economic index, a formula based on increases in physicians' practice costs. The rate of increase in the medicare economic index has been consistently lower than the rate of increase in prevailing charges. Therefore, the medicare economic index places a limit on increases in reasonable charges. Estimates are that about 60 percent of medicare Part B charges are limited by the medicare economic index.

Physicians can decide on a claim-by-claim basis whether to accept medicare's reasonable charge as payment in full for the service. If so, the physician receives payment directly from the program. The patient is responsible for the 20 percent coinsurance and any remaining deductible. If not, the physician bills the patient directly and the program reimburses the patient for 80 percent of the reasonable charge (after the deductible has been satisfied). The percentage of claims paid directly to the physician declined steadily from 61.5 percent in

1969 to 50.5 percent in 1976, after which it slowly increased, reaching 54 percent of claims in 1983.

The Deficit Reduction Act of 1984 imposed a 15-month freeze, effective October 1, 1984, on medicare physicians' fees. All physicians were required to say by October 1 whether they would accept direct payment for all of their medicare patients for the following year. The freeze and other provisions in the Deficit Reduction Act were expected to reduce the rate of increase in medicare physician spending in fiscal 1985 from 14.5 percent to 11.1 percent.

There are three related issues in the area of medicare physician reimbursement: the conditions for direct payment, determination of the medicare payments, and supplementary private insurance. As noted above, physicians currently have the option of accepting or rejecting direct payment on a claim-by-claim basis. Some observers have argued that this amounts to a license to overcharge patients and have, therefore, proposed all-or-nothing acceptance of direct payment. One problem with this proposal is that some physicians who had previously refused direct payment could simply cease to treat any medicare patients. Other physicians might continue to treat medicare patients, but select fewer medicare patients and more private patients. The total volume of services produced per physician by both types of physicians would also fall.

The second issue concerns how medicare's physician payments should be determined. Few observers would defend as reasonable the present payment system, which freezes in place the existing distortions in physicians' prices. For example, studies show that physicians' charges for hospital procedures are higher than for outpatient procedures; insurance coverage of inpatient procedures, which predates coverage of outpatient services and is still more extensive, may cause these differences.

Numerous proposals have been advanced to reform the medicare physician payment system. A successful proposal would use market mechanisms to set the values of the medicare payments. This is desirable because values set at competitive levels should assure continued access to quality medical care for beneficiaries. For example, the performance of certain high-volume procedures might be put up for competitive bids. The winning low bids would become the basis of a comprehensive scale that assigns weights to all procedures. Finally, the multiplier (a number that converts the weights into reasonable charges) could be auctioned to all willing physicians in the community.

The third issue concerns supplementary medicare insurance. In 1967, 45.5 percent of medicare beneficiaries also had private, supplementary insurance; by 1977 this fraction had grown to two-thirds.

Medicare supplementary policies tend to protect consumers against medicare cost-sharing. This calls into question the effectiveness of medicare payment strategies based on cost-sharing. One may ask why the demand for medicare supplementary insurance is so strong, particularly in the light of allegedly high premiums for these policies.

The answer may be that medicare supplementary insurance is highly leveraged. That is, the supplementary policy that pays 20 percent of the physician's reasonable charge may cause policyholders to use more services, for which medicare Part B is obligated to pay 80 percent of the bill. Therefore, consumers may regard supplementary policies as highly attractive, even though they may create substantial excess use of services for the system as a whole.

MEDICARE HOSPITAL REIMBURSEMENT POLICY

Until October 1983 medicare reimbursed hospitals for their "reasonable costs" of providing care, subject to some limits and exclusions. The Social Security Amendments of 1983 marked a major departure from cost-based reimbursement by establishing the prospective payment system. Under this system, hospitals are paid a prospectively determined rate for each discharge. The amount of the payment is determined by the classification of the discharge into one of 468 diagnosis-related groups. Certain types of expenses, such as capital and medical education, are still paid on a cost basis.

Data indicate that hospitals are responding to financial pressures to control costs and admissions. Hospitals have reduced personnel and staffed beds from the second and third quarters of 1983, respectively, to the second quarter of 1984. The introduction of the prospective payment system has also coincided with a gradual decline in hospital admissions and a sharper rate of decline in the length of stay for people age 65 and over.

The virtue of the prospective payment system is that it uncouples prices from the costs of individual hospitals. This idea, which lies at the heart of the prospective payment system, is that hospitals will strive to reduce their costs below the level of these fixed prices. The major problem with the prospective payment system is that the system of prices it established has no relation to the prices that would cause hospitals to produce the amount of services that consumers desire to buy at the right quality and the minimum cost. A price that is too low may cause producers to reduce investments so that the quality of service declines. Of more relevance to hospital services, a price that is too high in a market with competing suppliers will lead hospitals to compete in dimensions other than price, driving costs up to prices.

Achieving the appropriate set of prices will not be easy. The approach currently favored by the Health Care Financing Administration is to revise the existing system to account for unusual cases, hidden differences in the severity of cases among hospitals, and the like. However, the prospective payment system—no matter how finely tuned—creates incentives for cost increases that could be substantial in the long run. For example, hospitals have incentives to increase net revenues by increasing admissions, by unbundling services to shift costs to other parts of the medicare program, and by diagnosing and treating patients in the most highly reimbursed diagnostic categories.

The Health Care Financing Administration may attempt to thwart these cost-increasing tendencies by setting up regulations to detect and punish excessive use of services under the prospective payment system. However, without incentives on the part of consumers, it is doubtful that extra regulations will be effective. This is because individual consumers have no stake in saying “no” to extra admissions, unbundling of services, or reclassification of admissions into higher priced diagnosis-related groups. In addition, they have no reason to shop among hospitals on the basis of price. An efficient hospital can gain patients by offering higher quality care, but not by offering a lower price. This will lead to excessive quality competition. The system is basically one of price control, with all the usual disadvantages of that approach. As a transitional measure to a market-based system, however, current arrangements are superior to the previous system of cost reimbursement.

A disadvantage of any price control system is that it tends to become the target of groups who seek concessions for their special circumstances. For example, hospitals’ capital costs and medical education expenses are still reimbursed on a cost basis under the new system. This special subsidy will tend to increase the amount of resources devoted to capital and medical education. In the long run, other groups, including large public hospitals that provide charity care, may also obtain concessions from the prospective payment system. Such concessions would gradually convert the system from one that controls the overall level of prices to one that allocates resources on a microeconomic level within the hospital sector.

There appear to be two possible solutions for the longer run. First, medicare Part A could be turned into a preferred provider organization in which the program pays in full for admissions at low-priced hospitals. Consumers choosing more expensive hospitals would have to pay the balance of the hospital’s bill. This arrangement would not preclude using medicare’s substantial buying power to obtain discounts from high-priced hospitals.

The advantage of this approach is that it could be set up quickly in most parts of the country, including those where organized alternative delivery systems do not exist. The disadvantage is that it would not address the structural incentives of hospitals to increase admissions, unbundle services, and diagnose patients in profitable diagnosis-related groups. In order to solve these problems, it may be necessary to adopt the alternative approach of combining medicare into a single program and letting organized provider groups bid to serve the medicare population at competitive rates.

Under this alternative proposal, each medicare beneficiary would receive a voucher that would enable him or her to purchase both physician and hospital services from an approved medical plan. A successful voucher system would seem to have four characteristics: (1) it would be based on capitation, that is, a fixed payment per enrollee per month; (2) the medicare contribution would be determined by competitive bidding; (3) consumers would have a choice among alternative plans; and (4) it would be mandatory.

Medicare payment based on capitation would eliminate the problems of excessive admissions, unbundling of services, and diagnosis-related groups' reclassification that affect the present system. Competitive bidding would address the fundamental problem that the Health Care Financing Administration does not know in advance what hospitals' costs truly are.

The problem with using bidding to determine the capitation rate is that of specifying the product to be delivered and ensuring that the winning bidder actually delivers that product and not an inferior substitute. To overcome this problem, it is necessary for consumers to have a choice among competing plans. Then, if a plan did not deliver its promised services or otherwise inconvenienced its enrollees, they could go elsewhere. Such plans would acquire a bad reputation so that consumers need not be harmed before switching to another plan. In order to ensure an adequate number of competing plans, it would be necessary to define eligible plans quite broadly. In some instances, the capitation payment might be given to a primary care physician who becomes the patient's case manager and is at risk for additional expenses.

However, choice among health plans entails its own problems—those of preferred risk-selection and self-selection. Preferred risk-selection refers to the tendency of a health plan to pick off good risks, thereby making a profit at the standard capitation rate. There are two ways to prevent this. First, if the plan can charge consumers more than the standard capitation rate, then it will be willing to enroll all applicants, with marginal payments tailored to the applicant's risk. This system may be perceived as unfair to high risks, who have to

pay positive marginal premiums. An alternative is to risk-rate the capitation payment itself. Using certain predetermined demographic factors that are related to health care expenditures, the Health Care Financing Administration can vary the capitation payment. Although this system would not be perfect, it is exactly the technique that a private insurer would use to risk-rate its enrollees.

Standard medicare could remain as one of the choices under this system, but not as an open-ended choice. Those who remained with standard medicare would have to pay for premium expenses greater than their risk-rated voucher. Otherwise, medicare would be forced to subsidize those individuals who prefer the less efficient delivery system.

The Tax Equity and Fiscal Responsibility Act of 1982 marked a significant step toward the goal of medicare vouchers. That legislation amended the medicare statute to permit payments on a risk basis to HMOs and other competitive medical plans. The current law has significant shortcomings, however. One of these is a requirement that, if medicare payments exceed the estimated cost of serving medicare enrollees, the savings must be passed on to enrollees in the form of additional benefits or reduced cost-sharing. This regulation is unnecessarily restrictive because medicare enrollees might rather have cash rebates than additional benefits. A second flaw of the existing system is that the medicare payment to competitive medical plans is determined by the 95th percentile of risk-rated expenditures in the standard medicare plan. The competitive approach to setting this payment would have plans bid on the payment rate for each distinct risk class of enrollee.

The choice between the prospective payment system and vouchers boils down to the question of the appropriate unit of service for paying providers. The prospective payment system favors payment for each admission, whereas the voucher system is based on payment per enrollee. On balance, the argument for vouchers seems to be stronger, but both systems face similar problems in determining the appropriate payment rate: the prospective payment system must make appropriate distinctions among different types of admissions, whereas the voucher system must distinguish among different risk classes of enrollees.

In comparing the competing proposals, two points are important. First, competitive bidding might be used to help set the value of the medicare payments. Second, either system should include strong incentives for consumers to select efficient providers. This can be done through a preferred provider arrangement or by making the voucher system mandatory. Without consumer incentives, the medicare pro-

gram will continue to experience the cost-increasing pressures of insured medical care.

CARE FOR THE DYING

Much concern exists about the appropriateness of medical care services for the dying. Nowhere is this concern more relevant than for the medicare program. In 1978 medicare enrollees in their last year of life accounted for 28.2 percent of total program spending, although they represented only 5.2 percent of all enrollees. An earlier study had shown that medicare decedents in 1967 comprised 5 percent of enrollees and accounted for 22 percent of total program spending. Therefore, a disproportionately small number of enrollees accounts for a large, and apparently rising, share of program expenditures.

Much of this medical care is rendered in hospitals, which critics claim are an inappropriate site to care for the dying. The validity of this claim rests on the ability of medical science to determine, before care is rendered, whether or not expensive lifesaving measures are likely to succeed. Although this is an unresolved question, some research suggests that a large part of care rendered in hospitals' intensive care units is of low lifesaving value. As an alternative to expensive hospital treatment, careful attention should be given to innovative proposals for addressing medical needs during the last year of life.

One proposal to allow medicare beneficiaries suffering from terminal illness to receive hospice benefits was enacted by the Tax Equity and Fiscal Responsibility Act. An unresolved issue is whether the hospice benefit replaces expensive inpatient hospital care, or whether it primarily serves new beneficiaries. If the second effect dominates, then, although services to new beneficiaries clearly have some value, medicare costs will be driven up. An ongoing evaluation of the hospice program will determine its effect on the quality and cost of care.

The medicare hospice benefit recognizes that the purpose of end-of-life medical care is to provide for the comfort and well-being of the patient. In these areas, the patient may be the best judge of what is good medical care. The most difficult question is this: Under what conditions does a mentally competent patient have the right to refuse life-sustaining medical treatment? It is beyond the realm of economics to attempt to answer this question. It is clear, nevertheless, that expensive medical care, devoted merely to postponing death by weeks or days, will come under increasing scrutiny by patients, their families, and third-party payers.

COVERAGE FOR NEW MEDICAL TECHNOLOGY

An issue closely related to care for the dying is coverage for new medical technology. Recent advances in technology have enabled physicians to repair or transplant numerous organs, but at very high costs and with uncertain long-term outcomes. Should new medical technology be covered by health insurance programs? This question is being addressed by private health insurers who have, in some cases, extended coverage to include organ transplants. These insurers have developed estimates of the costs of new coverages and, if consumers are willing to pay, the firms offering such options will succeed in the marketplace. Unfortunately, no counterpart to this process exists in the medicare hospital insurance program, because the program is not financed by premiums and because consumers cannot express their preferences by choosing among different medicare options. These problems might be solved by medicare vouchers, but only if the standard voucher does not include expensive new technologies. Patients wishing to cover these services could then do so at their own expense. The alternative of covering new technologies in the standard voucher would provide protection for all medicare beneficiaries, but it would tend to add further cost increases to the medicare program. These increases might exceed the ability of our society to pay for all new medical technologies.

MEDICAID: PUBLIC HEALTH INSURANCE FOR THE POOR

The public image of medicaid is that of a welfare medical program oriented largely toward children and other members of families receiving Aid to Families with Dependent Children payments. Allegations abound that these clients abuse the program. Other critics point to abuses by medicaid providers; and policymakers have become increasingly concerned about "medicaid mills" in which low-quality care is provided.

None of these perceptions is accurate. In fact, medicaid has successfully met its legislated objectives. The primary emphasis of medicaid was intended to be on persons whose economic status is beyond their control—dependent children, and the elderly, blind, and disabled. Access to medical care for these groups has markedly improved and with it have come improvements in the health of the poor.

MEDICAID BACKGROUND INFORMATION

Medicaid was enacted by the Social Security Amendments of 1965 to pay for the medical care of specific categories of low-income people. It is administered by States and jointly funded by the Federal

Government and States. The Federal share of medicaid is determined by a formula related to the State's per capita income. For 1982 and 1983, the Federal share ranged from a statutory minimum of 50 percent in 13 States to 77 percent in Mississippi.

With some exceptions, to be eligible for medicaid, an individual must receive or be eligible for federally assisted cash welfare payments. States, at their option, may cover specific groups of people who do not receive cash assistance. Because of medicaid's multiple criteria for eligibility, about 12 million people with income below the Federal poverty threshold in 1980 were ineligible for medicaid. At the same time, about 5 million of those eligible had annual family incomes at least twice the poverty standard.

Medicaid must cover a broad range of benefits with most services provided free of charge, including some, such as skilled nursing home care, that are not often found in private insurance contracts. Because nursing home care is a catastrophic expense (exceeding \$30,000 for the average admission), nursing home residents often "spend down" their resources and income until they become eligible for medicaid. Many States have also chosen to cover optional services (for example, dental care, eyeglasses, and intermediate care facilities) that accounted for 40 percent of all medicaid outlays in 1978.

The overwhelming emphasis of the medicaid program is on institutional care. Of \$32.4 billion spent on medicaid in fiscal 1983, hospitals received 27.2 percent for inpatient care and nursing homes accounted for 30.9 percent (up from 23.4 percent in fiscal 1972). Payments to physicians represented only 6.7 percent of all medicaid payments in fiscal 1983.

The number of medicaid recipients increased from 18.3 million in fiscal 1972 to 22.8 million in 1977 and has declined slightly since then. The largest group of recipients are people who are eligible for Aid to Families with Dependent Children (5.5 million adults and 9.4 million children). However, this group accounted for only \$8.3 billion of spending in fiscal 1983. A much larger amount—\$23.3 billion—was spent on the elderly, blind, and disabled. This is a reflection of the medicaid program's emphasis on institutional and, particularly, long-term care.

Nearly 60 percent of all medicaid patients treated in private physician practices are seen by physicians whose patient volume is composed of at least 30 percent medicaid patients. However, these large medicaid practices do not fit the stereotype of medicaid mills. Ancillary services do not appear to be abused; nor is there evidence of excessive markups over cost. Visit length in large medicaid practices is comparable with that in other practices. Physicians in these practices often earn less than other physicians. However, physicians in large

medicaid practices tend to be older, nonboard certified, and graduates of foreign medical schools.

AID TO FAMILIES WITH DEPENDENT CHILDREN MEDICAID

Proposals for medicaid reform fall into three broad areas: to change the eligibility criteria and coverage of the poor, to trim medicaid benefits, and to modify the Federal role. For example, the Federal role might be changed from that of providing matching grants to payment of block grants to States. The argument behind this proposal is that block grants give the States greater flexibility in deciding how to use medicaid funds.

But this approach might lead medicaid-eligible people to migrate from States with poor benefits to States with generous benefits. If that were the case, some States would not be able to set benefits as high as they might desire for their current residents, because to do so would invite excessive immigration. Other States would set low benefit levels to encourage outmigration. Thus, the best strategy for all States would be to provide levels of benefits lower than they might otherwise desire.

One alternative is to tie the Federal contribution to a program of basic medicaid benefits judged to be necessary in all States. Those States desiring to add more benefits, or to extend coverage to more people, could do so with their own funds. Another alternative is to cap or reduce Federal payments by a fixed percentage amount. This method was used by the Omnibus Budget Reconciliation Act of 1981, which reduced Federal payments to each State in fiscal 1982, 1983, and 1984 by 3, 4, and 4.5 percent, respectively.

Proposals to change medicaid eligibility criteria and coverage of the poor should receive serious consideration, but the first principle for any change is that it should not reduce the incentives of medicaid recipients to work. A program that replaces the present categorical definition of eligibility with an income test would in effect add another tax on the earned income of poor people.

Any proposal to trim medicaid benefits or to introduce cost-sharing should be examined closely. The concern is that such policies adversely affect the health of the poor.

An alternative to medicaid cost-sharing is for the program to contract with selected hospitals on a competitive bid basis. California is experimenting with this program. Arizona is also conducting a demonstration of a substantially different method of providing medicaid benefits. Virtually all beneficiaries must choose among competing prepaid capitated organizations. All care must be provided or authorized by the prepaid capitated organization which is at financial risk for the provision of care. This system is similar to the HMOs volun-

tarily selected by many employees under their private insurance plan options.

LONG-TERM CARE MEDICAID

Long-term care medicaid presents different issues. Foremost among these is the growing demand for long-term care for the elderly. The elderly population doubled between 1950 and 1980 and will double again by 2030, accounting for almost one-fifth of the U.S. population. Moreover, the elderly population is becoming older. In the two decades from 1990 to 2010, the 85-and-over age group will increase three to four times as fast as the general population. This will create increasing demands for long-term care.

Most of the long-term care population resides in the community. Nevertheless, because institutional care is very expensive and many experts believe that it may be unnecessary in some cases, many proposals emphasize more community care for the elderly. Among these are formal sources of care (paid providers of home care, adult day care, etc.) and informal support by family members. Some have proposed giving families tax deductions or credits if they maintain severely disabled family members at home rather than placing them in an institution.

Other approaches would seek to strengthen private, voluntary financing mechanisms for long-term care. One of these is the life care contract, in which the beneficiary is guaranteed a lifetime continuum of care in a community that combines residential living with specialized long-term care services. The resident usually pays a lump sum initial fee and monthly charges thereafter. This contract represents a capitated approach where the provider is at risk and, therefore, has an incentive to provide a cost-effective mixture of services including alternatives to institutional care.

CONCLUSION

Medical care spending is rising at an alarming rate, seemingly beyond control. This despairing attitude is not justified. It is possible to control medical care costs without harming the health of the average person. This is because many of today's health problems are more closely related to eating, drinking, and smoking habits, and to accidents, than they are to lack of medical care. Thus, people can significantly improve their health by taking responsibility for healthy lifestyles. The private and public sectors can encourage this trend by adjusting health insurance premiums to reflect the savings from healthy behavior.

Much of the rise in medical care spending is attributable to health insurance, which insulates both individual consumers and providers from the costs of using or prescribing additional services. Numerous proposals would introduce price incentives into the market for medical services. The use of indemnity payments, which remove the insurance subsidy from the marginal units of medical care, is especially promising. Another proposal would cap the tax subsidy of employer health insurance contributions. The goal of these proposals is to use market mechanisms to determine both the level of medical care spending and its allocation among services.

Another promising development is that States have recently begun to take action to control medical care costs. State laws have been changed to permit the development of preferred provider organizations. Further attention should also be given to eliminating State regulations that favor one type of insurance company over another.

Some private health insurers have been able to negotiate discounts from hospitals. Discounts benefit the policyholders of these insurers and place pressure on other health insurers to control their premium costs. However, it would be unwise to encourage insurance industry concentration in order to obtain discounts. The negative consequences of market concentration might outweigh any benefits from this policy.

Until recently, the medicare program reimbursed each hospital for its costs of providing care. This Administration, however, has adopted a system that pays hospitals a prospectively determined rate for each medicare discharge. This system may be viewed as a transitional measure to a market-based approach.

The changes summarized above represent a healthy trend toward the use of incentives. As such, they indicate that the same principles used to allocate resources in other industries can be applied successfully to medical care. By making a commitment to continue this trend, society can turn the corner in the fight against medical care cost inflation.

CHAPTER 5

Economic Status of the Elderly

RETIREMENT AS IT IS KNOWN TODAY is a relatively recent phenomenon. In 1900 life expectancy at birth was 46 years for males and 48 for females. While most women did not work outside the home once they married, two-thirds of all men over 65 were still in the work force. Many men retired only because of poor health or company rules, and retirement usually consisted of a few years of declining health. Often the elderly relied on their children for housing and financial support.

Since 1900 the fraction of elderly men with jobs has declined dramatically, while the life expectancy of the elderly (65 and older) has improved substantially. Now, a man who is approaching the end of his working career can expect to spend about 15 years in retirement, a retirement that is often shared by a spouse who also makes a transition from worker to retiree. Because life expectancy has increased more for women than for men in the 20th century, the retirement years have become especially important for women. These are years that women are likely to face alone; two-thirds of women over 75 are widows. Elderly widows rarely remarry and on average they live 16 years beyond their husbands. Higher divorce rates have added to the number of elderly women living alone, so that today only two-fifths of all elderly women live with their husbands.

Resources to support these new retirement patterns rarely come directly from the families of retirees. The elderly receive less than 1 percent of their income from their children, and the fraction of elderly people living with their children has declined sharply. These new patterns are signs of the financial and physical ability of the elderly to live independently; they do not indicate isolation or abandonment. Only about 5 percent of the elderly live in nursing homes and most of the elderly who are not in nursing homes, even most of those over 85, report that they need no help with daily activities.

Although independent, the elderly have strong family ties. A national survey found that four-fifths of the elderly have at least one child and that only 11 percent of the elderly with children had not seen one of their children in the past month. The families of the elderly usually include grandchildren as well as children, and four-

generation families are becoming more and more common; about half of all elderly people have great-grandchildren. Longer lifespans also mean that the children of the elderly can be elderly themselves; about 10 percent of the elderly have a son or a daughter who is also over 65.

Retirement planning has become increasingly important for the Nation as well as for families. The proportion of the population that is elderly is growing; it will explode as the baby-boom generation retires. In 1900 one person in 25 was 65 years of age or older; today that proportion is one in eight; by 2030 one person in five will be elderly. In about 35 years the United States as a whole is expected to have the same proportion of elderly as Florida does today. In 50 years the ratio of people over 65 to the working-age population will be $2\frac{1}{2}$ times as great as it was in 1950. No other demographic change will influence the Nation in the next 50 years as much as this "graying" of America. Every American and every facet of the society will be affected.

CURRENT FINANCIAL STATUS OF THE ELDERLY

Thirty years ago the elderly were a relatively disadvantaged group in the population. That is no longer the case. The median real income of the elderly has more than doubled since 1950, and the income of the elderly has increased faster over the past two decades than the income of the non-elderly population. Today, elderly and non-elderly families have about equal levels of income per capita. Poverty rates among the elderly have declined so dramatically that in 1983 poverty rates for the elderly were lower than poverty rates for the rest of the population.

These encouraging statistics do not tell the whole story. The elderly are not a homogeneous group. Those with spouses have relatively high levels of family income, especially when leisure opportunities, lower tax rates for the elderly, noncash transfers, and assets are taken into account. A good deal of evidence supports the contention that the elderly with spouses are, on average, more financially secure than the non-elderly. But many of the elderly live alone and these individuals, particularly women, often have very limited financial resources; they are often poor. Poverty rates for elderly blacks and the very old are also high.

Conflicting statements about the economic status of the elderly can sometimes be traced to these differences among the elderly but they also arise for other reasons. The resources of the elderly include income after taxes and assets, as well as transfers both from the government and from families. Many of these resources, particularly

those that are more important to the elderly than the non-elderly, are hard to evaluate. In addition, statements about the financial security of the elderly are relative statements; they are based on a comparison of the measured resources of the elderly with the resources of the elderly when they were younger, with other groups, or, in a few cases, with a measure of the needs of the elderly. Different comparisons can lead to different conclusions about the economic status of the elderly as a group.

Many of the measures of the financial status of the elderly can be explained in the context of normal life-cycle patterns of income, consumption, and saving. Labor earnings tend to rise during the working years and then decline sharply after age 60. Consumption levels are more constant than earnings; a typical household borrows early in the life cycle and later begins to accumulate savings during the higher earning years. In the absence of social security payments, retirees maintain consumption by drawing down these savings. Social security changes life-cycle patterns in several ways; social security taxes and benefits can affect saving, retirement decisions, bequest plans, and consumption. The effect of social security on life-cycle patterns depends on many factors, including the degree to which the elderly anticipated actual benefit levels when they were younger.

INCOMES OF THE ELDERLY

Given these normal life-cycle patterns, current income, the most widely used measure of financial status, can be misleading. Income can be low in retirement even when preretirement consumption levels are maintained, because consumption is financed out of savings accumulated during the working years. In addition, relative measures of income depend on the choice of the comparison group. The elderly have relatively low income compared with those near retirement; but they have income levels close to much younger groups. The difference is in part attributable to life-cycle patterns of earnings. These relative measures are also affected by the increase in incomes of successive generations because of economic growth, an increase that tends to work in the opposite direction and depress the income of the elderly relative to the young.

Several of the various measures of relative financial well-being can be illustrated using the before-tax income data in Table 5-1. The income of today's elderly can be compared with the income of the elderly in the past, a comparison of elements in the last column. Since 1950 the mean income of elderly families has gone up more than 80 percent in real terms, and the mean income of the unmarried elderly living in a household without relatives (unrelated individuals) has more than doubled. The income of the elderly can also be com-

pared with the income of the same individuals when they were younger, a measure that depends on life-cycle patterns of income. Table 5-1 can be used to approximate portions of the life-cycle patterns of income for several generations. These life-cycle patterns are traced out for families by diagonal elements in the table. For example, most of the elderly families in 1980 were roughly in the 35-to-44 age bracket in 1950. Thus, the data in Table 5-1 indicate that, on average, elderly families in 1980 had higher levels of before-tax real income than they had in 1950 but lower levels of income than they had closer to retirement. Research based on income data for individual families over time rather than averages has led to the same conclusion—that elderly families have real incomes below levels they attained in middle age but similar to levels attained when the head was younger.

TABLE 5-1.—*Mean real money income before tax (in 1983 dollars) of families and unrelated individuals, selected years, 1950-83*

[Dollars]

Economic group and year	Age (years)				
	25-34	35-44	45-54	55-64	65 and over
Families¹					
1950	14,910	17,510	18,140	16,900	11,780
1960	20,480	24,130	24,810	22,160	14,740
1970	26,570	31,850	34,810	30,730	18,260
1980	25,760	32,420	36,460	32,890	20,370
1983	24,730	32,460	36,530	32,060	21,420
Unrelated individuals					
1950	8,920	9,280	8,270	6,670	4,150
1960	11,880	13,730	11,230	8,710	5,510
1970	18,640	17,940	15,740	13,070	7,380
1980	16,890	19,730	16,530	13,150	8,640
1983	16,420	20,120	18,200	14,070	10,040

¹ Age determined by age of head of household.

Note.—Money income converted to 1983 dollars using the consumer price index for urban wage earners and clerical workers (CPI-W) and rounded to the nearest \$10.

Source: Council of Economic Advisers, based on data from Department of Commerce (Bureau of the Census).

The Table 5-1 data for unrelated individuals cannot be used to trace income patterns over a lifetime because there is substantial movement into and out of this category. In many cases the relatively low income levels of elderly individuals living alone, particularly women, can be explained by the loss of a spouse.

One common measure of relative financial well-being is the average income of the elderly, those currently 65 and over, compared with the average income of adults now aged 25 to 64. This measure

is a comparison of one element in the last column of Table 5-1 with the average for the younger groups in the same row. It is influenced by life-cycle patterns of income, by the effect of economic growth on the income of successive generations, and by changes in the age distribution of both the elderly and non-elderly. Since the 1950s the average age of the elderly has increased because the fraction of the very old among the elderly has increased. The average age of the non-elderly has also changed, reflecting low birth rates in the 1930s and the high birth rates that produced the post-World War II baby boom. Given these influences, it is difficult to interpret relative income measures that compare the elderly with the non-elderly and it is not surprising that these measures have fluctuated since 1950. Nevertheless, between 1970 and 1983 the relative status of the elderly improved dramatically (Table 5-2). In 1983 before-tax per capita mean income was virtually the same for elderly and non-elderly families. Two-thirds of the elderly lived in family units. Per capita income ratios are higher than family income ratios because families with an elderly head tend to be smaller than younger families. In 1983 elderly families contained an average of 2.4 persons compared with an average of 3.5 persons for non-elderly families. The elderly to non-elderly income ratios are lower for unrelated individuals because the elderly in this class are frequently older widows, who tend to be the poorest of the elderly.

TABLE 5-2.—*Mean real money income before tax of the elderly and non-elderly, 1970 and 1983*

Economic group	1970	1983
Elderly (65 years and over)		
Family income	\$18,260	\$21,420
Family income per capita ¹	7,630	9,080
Income of unrelated individuals	7,380	10,040
Non-elderly (25-64 years)		
Family income	\$31,050	\$30,940
Family income per capita ¹	8,110	8,960
Income of unrelated individuals	15,820	16,900
Income ratios (elderly to non-elderly)		
Family .....	.59	.69
Family per capita .....	.94	1.01
Unrelated individuals .....	.47	.59

¹ Bureau of the Census publications do not include a measure of average family size prior to 1976. The 1970 measures of mean per capita income are estimated from information on the income of families of varying sizes.

Note.—Money income converted to 1983 dollars using CPI-W and rounded to the nearest \$10.

Age of family determined by age of head of household.

Source: Council of Economic Advisers, based on data from Department of Commerce (Bureau of the Census) and Department of Health and Human Services (*Social Security Bulletin*).

The distribution of before-tax income around its mean is very different for the elderly and non-elderly. Although the elderly are less likely to have income below the poverty line, they are more likely to have income below mean levels for their age group. In 1983 most of

the elderly (60.8 percent) had before-tax income between \$4,000 and \$15,000.

This bunching of the income distribution for the elderly below the mean is the result of normal retirement patterns and the social security benefit schedule. Most of the elderly have chosen to retire. That choice reflects the decision to consume more leisure at the expense of income. In addition, social security benefits, a principal source of current income for the elderly, are capped. The maximum benefit was \$734 a month for a 65-year old individual who retired in December 1983. With the benefit for a spouse, equal to one-half the primary benefit amount, annual social security payments would amount to \$13,217.

Income levels of the elderly have improved both absolutely and relatively in spite of several forces that worked in the opposite direction. The most dramatic of these forces was a decline in labor force participation of the elderly and a simultaneous increase among the non-elderly. The labor force participation rate of elderly males declined from 26.8 percent in 1970 to 17.4 percent in 1983; the participation rate for elderly females declined from 9.7 to 7.8 percent. Among those aged 25 to 54, both male and female, the participation rate increased from 72.0 to 80.1 percent over the same period. Along with increasing income, the elderly have benefited from increasing amounts of leisure over the past few decades on both an absolute and a relative basis.

Demographic factors have also tended to depress the average income of the elderly. The age distribution of the elderly has shifted toward those over 75. Because income typically declines with age and because older generations have lower levels of lifetime income, increases in longevity tend to lower average income levels for the elderly. In addition, the ratio of women to men among the elderly has increased from six women for every five men in 1960 to three women for every two men in 1980. In 1983 mean income for elderly females living alone was equal to 80 percent of mean income for elderly males living alone.

Most income measures, including those in Tables 5-1 and 5-2, are before-tax rather than after-tax measures. The elderly have lower average tax rates than the non-elderly and thus have more to spend out of a given income than the non-elderly. Approximately two-thirds of the elderly pay no income tax. The elderly benefit from several tax provisions. Individuals 65 and older with low incomes receive a 15 percent credit against their tax and all individuals aged 65 and over are entitled to an additional \$1,000 exemption. Those over 55 also receive preferential tax treatment on the capital gain from the sale of one principal residence. Social security benefits were not taxed at all

before 1984. Now individuals with incomes well above average levels for the elderly must include a portion (up to one-half) of their benefits in taxable income.

Income levels of the elderly have improved despite offsetting demographic trends largely because of increases in social security benefit levels and coverage. Between 1950 and 1983 the fraction of the elderly receiving social security benefits rose from 16 to 94 percent. Furthermore, the average level of nominal benefits went up much faster than the price level during the same period (Table 5-3). Real benefits went up by almost 150 percent. Income levels of the elderly have improved relative to the non-elderly since 1970 because social security benefits increased by 46 percent in real terms while earnings from wages and salaries, the major source of income for the non-elderly, decreased by 7 percent in real terms. Thus, younger families have had to work more to keep up with inflation since 1970; older families have not.

TABLE 5-3.—*Increases in wages, prices, and social security benefits, 1950-83*

Item	Percent change				
	1950 to 1960	1960 to 1970	1970 to 1980	1970 to 1983	1950 to 1983
Median annual wages and salaries ¹	46	58	104	138	451
Consumer price index ²	23	31	112	156	312
Average monthly social security benefit for retired workers	69	60	189	273	905

¹ Data are for persons 14 years of age and over through 1977 and for persons 15 years of age and over beginning 1978.

² CPI-W.

Sources: Department of Commerce (Bureau of the Census), Department of Health and Human Services (Social Security Administration), and Council of Economic Advisers.

Relative trends in the income of the elderly and the non-elderly may be misleading if the two groups typically spend their money in different ways. Typically the elderly spend more of their income on medical care and food and less of their income on transportation and child care than the non-elderly. Different expenditure patterns are not taken into account in the calculation of real income because the same measure of average prices—the consumer price index—is used to adjust dollar income for both groups. Several studies have investigated this issue and virtually all have concluded that the goods typically purchased by the elderly and the non-elderly have experienced similar price increases. In other words, the same index can be used to compare the real income levels of the elderly and the non-elderly. The common perception that the elderly are especially susceptible to inflation is not supported by recent evidence. Social security payments have increased faster than the consumer price index, and that

index accurately reflects price increases of the purchases of the elderly.

Current income has been the most widely used measure of financial status out of necessity rather than merit. The economic status of the elderly can be evaluated properly only in the context of needs relative to total resources. Resources include assets, gifts, and other transfers as well as income. But it is very difficult to define needs, and both needs and assets are measured only sporadically.

POVERTY RATES AS A MEASURE OF NEED

The best known measure of need is the official definition of poverty, a standard that takes some of the needs of different types of families into account. Families with incomes below the official poverty level are defined as poor. Benefits in kind are not included in the measure of income.

Poverty rates are lower now than in 1960; they have declined more for the elderly than the non-elderly (Table 5-4). Elderly families now have lower poverty rates than non-elderly families. Most of the elderly poor live alone or with nonrelatives, however. The poverty rate for these elderly individuals living alone (unrelated individuals) is higher than the poverty rate for unrelated individuals between 25 and 64, but the disparity in these poverty rates has declined dramatically. In 1983 the poverty rate for the entire elderly population was 14.1 percent; for the non-elderly, including those under 24, it was 15.4 percent.

TABLE 5-4.—*Percent of the elderly and non-elderly populations with incomes below the poverty line, selected years, 1960-83*

Economic group	1960	1970	1980	1983	1960	1970	1980	1983
	Elderly (65 years and over)				Non-elderly (25-64 years)			
Families	27	16	9	9	16	8	10	12
Married couple families and families headed by a male.....	26	16	8	7	13	6	6	7
Female head, no husband present.....	31	20	15	17	44	32	32	36
Unrelated individuals	66	47	31	26	32	20	17	18
Male.....	60	39	24	22	26	14	14	17
Female.....	68	50	32	28	38	25	21	21

Note.—Age of family determined by age of head of household.

Source: Council of Economic Advisers, based on data from Department of Commerce (Bureau of the Census).

One major reason that poverty rates have declined for the elderly is the social security system. The average couple's benefit was \$744 per month in December 1983, 48 percent more than the poverty line for an elderly family of two. In the same month, the average widow's

benefit was \$393, which was 98.9 percent of the poverty line for an elderly single individual.

Despite large Federal outlays for the elderly—more than \$200 billion in fiscal 1983—measured poverty persists among the elderly because less than 10 percent of these outlays are for programs designed specifically to assist the low-income elderly. Often, the Federal programs that are intended specifically for the poor among the elderly do not provide benefits that are large enough to raise households above the poverty level, even when State supplements are taken into account. About 90 percent of Federal outlays for the elderly are for retirement and health programs that do not have eligibility criteria based upon income or assets—a means test. These programs are important for many of the elderly with low income, but they are not intended specifically for the poor. About half of all elderly households with income below the poverty level receive no means-tested benefits. Some of these households have assets that preclude the receipt of benefits; others may be reluctant to apply.

BENEFITS IN KIND

Income levels and poverty rates do not reflect benefits that are paid in a form other than cash (benefits in kind). One important benefit in kind is medical care. Almost all elderly families are covered by medicare. Federal expenditures on medicare for the elderly were \$48.4 billion in fiscal 1983 or nearly \$1,800 per elderly individual. In addition, \$12 billion in medicaid (about one-third of all medicaid funds) was devoted to the elderly, primarily the elderly in nursing homes. About 16 percent of the elderly (about one-third of all elderly men) are eligible for medical care from the Veterans Administration. A veteran who has reached the age of 65 is now automatically eligible for medical care on request, without regard to financial need, if space is available in Veterans Administration hospitals and nursing homes.

Despite the fact that the elderly have lower poverty rates, elderly households are more likely to receive at least one form of means-tested noncash benefits than the average household. Although elderly households account for 21 percent of all households, they account for 31.5 percent of households receiving housing subsidies, and 29.4 percent of households receiving medicaid, though they represent only 16.8 percent of households receiving food stamps.

In spite of the substantial research on the value of benefits in kind, the results are controversial. In 1983, for example, the poverty rate for elderly people measured on a cash income basis was 14.1 percent. After including food, housing, and medical benefits valued at their full cost in the private marketplace, the poverty rate for the el-

derly was estimated to be 3.3 percent. Because they are less likely to receive medical benefits, the same valuation would reduce the poverty rate of the population under 65 by much less—from 15.3 percent to 11.1 percent. Debate continues on whether this market measure overstates the value of in-kind benefits. These benefits do provide goods and services that the elderly would otherwise have to pay for out of their cash income, but the recipients of these benefits may not value them at their full cost. Estimates of the poverty rate for the elderly based on cash income plus in-kind benefits vary from 3.3 percent to 9.1 percent for 1983, depending on the assumed level of recipient valuation.

ASSET LEVELS

Many observers have characterized the contribution of assets to the financial status of the elderly as minimal, but the 1983 Survey of Consumer Finances conducted by the Federal Government found that the average asset levels of elderly families were higher than the average asset levels of younger families (Table 5-5). The survey also found that the assets of families in which the family head is 75 or older were slightly lower than assets of families with a family head between 65 and 74. This difference may reflect the fact that assets are used to finance consumption in retirement; the difference could also be attributable to the generally lower wealth levels of older generations. In fact, some recent studies have found that asset levels of the current elderly often do not decline. Many of the elderly continue to save and build up assets. There are several ways to interpret this surprising pattern of saving among the elderly, but it is a strong indication that the elderly who do save have a high level of economic security.

Home equity is the largest asset for most elderly households. Most of the elderly own rather than rent their dwellings, and they have substantial amounts of equity in their homes. The elderly as a group gained disproportionately from the increases in home values that occurred in the 1970s.

Assets are important to many elderly families, but they do not contribute much to the financial resources of families with very low income. Assets are highly correlated with income so that most of the families with low income also have low asset levels. Asset income, including the imputed rental value of owner-occupied housing, amounts to only a few hundred dollars for households that have annual incomes below \$5,000.

Elderly individuals with low income generally have had low earnings before retirement because, for the most part, retirement income is related to earnings. Low earnings also limit the ability to accumu-

TABLE 5-5.—*Financial assets and homeownership of households holding such assets, by age group, 1983*

Age of head (years)	Percent of households owning liquid assets	Liquid assets of those holding such assets ¹		Total financial assets of households holding such assets ²		Percent of households with homeownership	Net equity of homeowner ³	
		Mean	Median	Mean	Median		Mean	Median
Under 25	81	\$1,970	\$600	\$2,650	\$750	10	\$18,870	\$13,780
25-34	87	4,270	1,200	7,960	1,510	40	32,640	27,770
35-44	91	8,910	3,000	14,410	3,750	66	52,070	40,600
45-54	89	14,830	3,310	23,010	4,130	75	64,470	50,000
55-64	91	25,440	7,430	54,950	9,340	73	73,580	55,000
65-74	88	30,670	9,680	65,340	11,400	69	63,670	45,000
75 and over	86	26,480	7,890	37,060	10,350	57	47,760	40,000
45 and over:								
Head in labor force	93	20,960	6,230	42,790	8,200	76	68,390	53,770
Head retired	86	28,200	6,730	50,170	8,750	69	62,460	44,170

¹ Liquid assets include checking accounts, savings accounts, money market accounts, certificates of deposit, IRA and Keogh accounts, and savings bonds.

² Financial assets include liquid assets plus stocks, other bonds, nontaxable holdings (municipal bonds and shares in certain mutual funds), and trusts.

³ Nonfarm homeowners.

Source: Board of Governors of the Federal Reserve System.

late assets before retirement. Consequently, financial distress among the elderly is not so much a function of aging as it is a function of the factors that lead to low levels of income at all ages. These factors include education, race, and work history. The principal exception to this generalization may be for elderly women who lose a spouse, either through death or divorce. Although the loss of a spouse generally lowers household income at any age, the young and men of all ages usually remarry after a divorce or the death of a spouse; older women usually remain single. Elderly widowed men have remarriage rates that are about seven times higher than those of elderly widows.

SOURCES OF SUPPORT FOR THE ELDERLY

The relative importance of different sources of support for the elderly has shifted considerably over the past few decades. Earnings have decreased in importance with declining labor force participation, while social security, pensions, and assets have increased in importance.

Other sources of support have also changed. Between 1950 and 1970 the percentage of the elderly living with their children declined from 31 to 9 percent. Some of this decrease reflects a shift toward institutional care, but most of it reflects the formation of independent households. The rate of nursing home use by those 65 and over

has almost doubled since the introduction of medicare and medicaid in 1966, but it is still quite low—around 5 percent.

Many observers see a causal relationship in these patterns: a cessation of work because of retirement benefits and the substitution of legally mandated intergenerational transfers for transfers within families.

EARNINGS

Earnings, at one time the most important source of income for the elderly, now represent about 15 percent of the money income of the elderly. Earnings have declined as a share of income because of reduced labor force participation and because a higher fraction of elderly workers participate on a part-time basis. In 1960, 35 percent of male workers 65 and over worked on a part-time basis; now almost half work part time. Part-time employment for female workers 65 and over increased from 48 percent to 61 percent over the same period. Most older workers who reduce their work effort below full time have left the job they held in their prime working years, and they generally work at a lower hourly wage rate. The average duration of partial retirement for those who choose to work part time is about 3 years.

The increase in the relative importance of part-time work is clearly influenced by the social security earnings test. Earnings above a limit reduce social security benefits by \$1 for every \$2 in earnings. The limit increases as retirees grow older and after age 70 there is no limit. The social security test is, in effect, a 50 percent tax on a range of earnings above the limit. To some extent, this tax is offset by increases in future benefits. When other taxes are taken into account, the marginal tax rate on current income can exceed 100 percent for some of the elderly. Consequently, many of the elderly do not work once they have earned the limit. Earnings distributions for the elderly clearly show this phenomenon; annual earnings tend to bunch near the point where the earnings test begins to bind.

New retirement patterns are largely a matter of choice on the part of the elderly, a choice that reflects both an improved financial status that allows them to enjoy more leisure and the incentives inherent in retirement benefits. The view that most of the elderly have been forced to retire by poor health or by mandatory retirement laws is not supported by the evidence. Changes in health do not explain the decline in labor force participation over time. To some extent, the decline in participation can be explained by the fact that the minority of workers with health problems are now able to retire early. This phenomenon is not a significant factor behind current retirement patterns. Most workers now retire between age 60 and age 65. That pattern is explained by economic incentives, not by health.

The explanation for work patterns among the elderly is not found in mandatory retirement rules either. Even before the Congress raised the minimum mandatory retirement age from 65 to 70 in 1978, only a minority of workers were employed in jobs that imposed mandatory retirement, and the vast majority of these workers retired before the mandatory date. Estimates of the percent of workers who retire because of mandatory retirement have been quite small—between 2 and 5 percent. The actual incidence may be even lower now because several States have outlawed mandatory retirement entirely.

There is increasing evidence that the retirement decision is a matter of choice, a choice that is strongly influenced by the economic incentives inherent in both social security and private pensions. Labor force participation has declined as pension benefits have increased. The effect of pensions on labor force attachment can also be observed among individuals in a given year. Even though pension recipients are not forced to stop working, they often do. In 1980 the employment rate for recipients of private, State, and local pensions aged 60 and over was only 56 percent of the rate for the entire population in the same age bracket. Further evidence that the timing of retirement is largely a matter of choice can be found in the distribution of retirement ages: The two peak years of retirement occur at ages 62 and 65. Sixty-two is the earliest age of retirement for social security. The current benefit structure of the social security system discourages work past the age of 65. In addition, 65 is the normal retirement age in most pension plans. After the age of 65, pension accrual frequently ceases. The implication of these suggestive patterns is reinforced by more sophisticated statistical studies. About three-quarters of the variation in retirement ages can be explained by economic variables that measure the level of accrued pension benefits at a given age and changes in income streams that can be anticipated if retirement is postponed.

The decision to retire is clearly influenced by the financial rewards for continued work. These financial rewards include wages and pension benefits. Although workers are less likely to retire when the rewards for continued work are high, they often retire even when retirement means lower income. This choice of leisure over income is influenced by working conditions. Workers in blue-collar jobs, particularly those jobs involving heavy manual labor such as mining and construction, are likely to retire earlier than workers with jobs in retail trade or service industries.

Despite the limited labor force attachment of older workers, surveys find that many of the elderly want to work part time. This is not surprising, given the incentives inherent in the social security earnings test. The fact that more people say they want to work part time

than actually do has led to the conclusion that there is a shortage of part-time employment opportunities for older workers that is caused by age discrimination and employer inflexibility over hours. It is unlikely, however, that these factors explain the frequency of part-time work among the elderly.

Wanting a part-time job can mean many things. It usually means a desire for a job with a wage that is sufficient to attract a worker out of retirement. Even though many of the elderly work part time at a reduced hourly rate compared with their preretirement wage, the lowest hourly wage at which workers would be willing to accept a part-time job can be quite high for some older workers. The compensation package for elderly workers frequently includes no retirement benefits. Thus, post-retirement jobs must offer more in wages to make them as attractive as preretirement opportunities. The fixed costs of working may also raise an individual's minimum acceptable wage. A low wage for a few hours a week may not be attractive when transportation, clothing, and other work-related expenses are taken into account. Thus, many workers may be unwilling to work at an hourly rate lower than the rate paid on a preretirement job.

Employers, however, are likely to offer reduced wages for part-time employment for several reasons. Part-time employment for older workers often means a job change either because retirement provisions preclude work with a preretirement employer or because retirees seek a less demanding job once pension benefits have been secured. A job change often means that workers cannot use the same skills they acquired in their career before retirement. In addition, employers often face fixed costs of employment that make one full-time employee more cost effective than two or more part-time employees who work the same total hours. Among these are costs of record-keeping, performance evaluation, training, some fringe benefits, and some social insurance payments.

As a result, jobs that are available often do not pay enough to attract the elderly. A shortage of jobs exists only in the same sense that would imply a shortage of almost anything with desirable features and an unspecified price. Alleged employer inflexibility in this case is the result of the normal forces that reward efficiency in a firm. Age discrimination is also an unlikely explanation for the scarcity of part-time employment among the elderly. Part-time employment, particularly employment for less than 25 hours a week, is rare among all adult workers.

ASSETS AND FAMILY SUPPORT

Surveys indicate that money income from assets accounts for about 25 percent of the cash income of the elderly. These findings should

be interpreted with care because income from assets is often significantly underreported, more so for the elderly than the non-elderly. Assets become more important as a source of income as income rises, accounting for only slightly more than 5 percent for households with income under \$5,000 but more than one-third of income for households with income over \$20,000.

The major single asset for most of the elderly is their home. Nearly three-quarters of elderly households own their own home; half have complete ownership (no mortgage). Some elderly homeowners have little in the way of other resources, and they may need ways to convert home equity into money income. Reverse mortgages—financial arrangements that provide monthly payments from a bank and reduce home equity—were devised to meet this need. They provide income and a home to elderly individuals as long as they live. The bank takes over the home when the homeowner dies. These and other financial instruments to tap home equity have received a great deal of attention lately, but the actual use of reverse mortgages is rare. Many of the existing schemes are financially unattractive to the elderly because they offer little in monthly income relative to the market value of the home.

Some research has suggested that the reverse mortgage market has not flourished because the elderly have better ways of converting housing into other forms of consumption. Children may support parents so that they are not forced to move out of their homes. This financial support keeps the home in the family so that it can revert to the children as a bequest. In essence, parents borrow from children and secure the loan with their homes. The attractiveness of this arrangement compared with loans outside the family may explain why reverse mortgages are uncommon. Although there is little evidence of these arrangements in income surveys, financial support from children to the elderly may be in the form of gifts in kind or the direct payment of bills; this kind of support is rarely measured as income. In any event, the decline in measured support for the elderly by their children may be explained by their growing financial security, a trend that has reduced the need for both reverse mortgages and transfers from children to elderly parents.

The asset income figures cited above do not reflect consumption that is financed from the sale of assets. A principal rationale for saving is to provide assets that can be drawn down during retirement. But an important consideration for the elderly is the uncertainty surrounding longevity. A plan to draw down assets that is based on average lifespans would require disastrously low consumption in the last years of life under the otherwise fortuitous circumstance of living until age 90. An investment that reduces this uncertainty over

the lifespan of the elderly is an annuity that provides a monthly payment as long as the owner is alive. The monthly payment depends on the amount of money invested and the age at which the annuity is purchased. Although it has attractive features, the private annuity market is similar to the reverse mortgage market. Private annuities are rare, and they are often financially unattractive. The availability of social security and pensions may explain the limited availability of private annuities. Because both social security and many private pension benefits are in the form of an annuity, the need for other annuities is reduced.

SOCIAL SECURITY

Social security benefits are the principal source of income for the majority of elderly Americans. Benefits comprise about 40 percent of the income of the elderly, and for 59 percent of the elderly households they make up at least 50 percent of their income. Social security benefit levels and coverage are given in Table 5-6.

TABLE 5-6.—*Social security coverage and benefit levels, selected years, 1950-83*

Year	Percent of population 65 years and over receiving benefits		Average monthly benefits at year-end			
	Social security ¹	Social security and/or supplemental security income ¹	Current dollars		1983 dollars ²	
			Retired worker	Spouse	Retired worker	Spouse
1950.....	16	37	\$43.86	\$23.60	\$180.91	\$97.35
1960.....	62	72	74.04	38.72	248.25	129.82
1965.....	75	82	83.92	43.63	264.10	137.31
1970.....	86	90	118.10	61.19	302.00	156.47
1975.....	90	94	207.18	105.19	382.23	194.07
1980.....	91	94	341.41	171.95	411.07	207.04
1983.....	94	96	440.77	225.66	440.77	225.66

¹ Includes old-age and survivors' benefits. Disability benefits become old-age benefits beginning at age 65.

² Current dollars deflated by CPI-W.

Sources: Department of Health and Human Services (Social Security Administration) and Council of Economic Advisers.

The social security benefit formula has many features that are particularly attractive to recipients. The current formula to determine initial benefits adjusts all previous earnings for average wage increases in the past. In other words, workers are given full credit for productivity gains made by the economy during their working years. Thereafter, benefits are indexed to the overall level of prices, so that the promised benefit stream maintains its purchasing power even in the presence of unexpected inflation. In addition, payments are in the form of an annuity, so that they continue as long as the beneficiary remains alive. Because social security provides excellent protec-

tion against the major uncertainties that face elderly Americans, the dollar amount of benefits underestimates their value to the recipients.

To qualify for social security benefits, an individual must have had a minimum level of earnings in covered employment for a minimum number of quarters. The minimum number of quarters has been rising; it was 32 for those turning 62 in 1983. Benefits are financed by a tax on both employers and employees. The benefit payments that are available upon retirement are related to earnings during the working years, and they are adjusted for the age and marital status of the retiree. The relationship between taxes and expected benefits is progressive in the sense that the average rate of return on tax payments is lower for high-wage earners who have contributed relatively more to the system. This intentional redistribution may be offset to some extent by the fact that members of some low-income groups have shorter average lifespans; they are less likely to live long enough to collect large amounts of social security. The redistributive element of social security has recently been strengthened by the requirement that individuals who have substantial alternative sources of income pay income tax on up to one-half of their benefits.

The social security system also redistributes income toward married couples where only one spouse is in the paid labor force, and away from other types of households. Under the current social security law, a couple with one spouse who never works outside the home is entitled to 150 percent of the pension that would go to a single retiree with the same earnings history. Thus, the rate of return on social security contributions is higher for married couples with only one earner than for other households. In many cases, couples with two earners receive little or no extra benefits even though they have paid higher social security taxes; the effective rate of return on their additional taxes is negative.

The large magnitude of social security benefits does not entirely represent a net addition to retirement resources. To the extent that these benefits were anticipated before retirement, individuals may have reduced their own savings. Furthermore, the presence of benefits may induce individuals to work less than otherwise in their later years, and lead family members to contribute less to their support.

The question of whether the social security system reduces private saving for retirement is controversial. Because the system guarantees a certain level of income during retirement, individuals who plan over their entire life cycle might plan to save less during their working years if they anticipate social security benefits. On the other hand, the social security system provides an incentive for people to retire earlier, tending to increase the number of retirement years for

which saving must be done and to reduce the number of years over which it can be done. The social security system may also affect the amount of support that the elderly can expect from their own children, offsetting the reduction in required saving. Thus, the net effect on private saving is uncertain.

The possibility that social security benefits may replace private saving does not apply with full force to the current elderly; the major increase in benefit levels enacted by the Congress in the early 1970s was undoubtedly unexpected. Even if a 55-year-old worker responded to these essentially windfall gains by reducing private saving, it is unlikely that the offset would be as complete as is the case of perfectly anticipated benefits. The alternative adjustment—reductions in resource flows from children to parents—is more likely. In some families these flows are reversed; the elderly provide financial support to adult children.

People who retired during the early years of the social security system received very high rates of return on their own contributions because they paid payroll taxes for only a small number of their working years. The system has now reached a mature stage where most new retirees have made contributions for their entire working lives. Even for this currently retiring generation, the rate of return on contributions is quite high, primarily because of the large increase in real benefit levels enacted by the Congress in the early 1970s.

For the present generation of workers, the prospects for earning a high rate of return on contributions are not nearly as bright. Because the ratio of retired individuals to the working population has increased substantially and will increase more when the baby-boom generation begins to retire, maintaining the same benefit schedule requires a continually increasing tax burden on the working population. The current work force is paying now for benefits to today's retirees that exceed their contributions by a substantial amount. The baby-boom generation cannot expect to do nearly as well when it retires.

The fiscal health of the social security system, in both the short term and long term, has recently been a cause of considerable concern. Since 1939 the system has operated on a pay-as-you-go basis, with the benefits for current retirees being financed by taxes on current workers. Beginning in 1975, though, program expenditures exceeded revenues and long-run projections indicated a substantial permanent deficit in the social security trust fund.

These problems were addressed by legislation in both 1977 and 1983. The 1977 amendments raised contribution levels and corrected a flaw in the indexing formula that overcompensated beneficiaries for inflation. The Social Security Amendments of 1983 adopted most of

the recommendations of the National Commission on Social Security Reform, which reported its findings to the President in January 1983. The 1983 amendments included provisions for limiting future growth in expenditures and increasing payroll tax revenues so as to ease both the short-term and long-term shortfall. The Social Security Administration now estimates that the old-age, survivors, and disability programs will be in approximate balance over the next 75 years, with surpluses accumulating until about 2020 and being gradually drawn down thereafter. The long-run solvency of the fund depends on the growth of real wages and the growth of the working-age population. There is a great deal of uncertainty over these factors. The medicare program, a social security program that is not included in these estimates, is now projected to have growing deficits well into the next century.

PENSIONS

Pension coverage has grown dramatically over the past three decades. In 1950 about 25 percent of the work force was covered by a pension plan other than social security. Today more than half of all workers are covered. Increased pension coverage has been linked to the tax treatment of pensions, Federal freezes on wage compensation, and a 1948 ruling by the National Labor Relations Board that employers are required to bargain over the terms of pension plans. About 30 percent of the elderly now receive pension benefits, accounting for about 15 percent of income for all elderly persons and about 45 percent of the income of pension recipients. Pensions will become a much more important source of retirement income in the future; more and more newly retired workers will have acquired pension rights because of past increases in coverage. The future role of private pensions will be strongly influenced by the resolution of several current pension policy issues. In order to understand these policy issues, some knowledge of the institutional features of the U.S. pension system is required.

The Private Pension System in the United States

Pension coverage does not necessarily imply actual receipt of a pension. Pension benefits become certain, or vested, only when the age and tenure restrictions specified by the pension plan have been met. There are two distinct types of pension plans. Three-quarters of pension plan participants are enrolled in defined benefit plans that pay a specified stream of benefit payments based on years of employment and earnings. The other type of pension plan, a defined contribution plan, pays benefits that are a distribution of an employee specific investment account that has accumulated through employer and employee contributions. The yearly pension depends on mortality ex-

pectations, the contribution rate, and the performance of the plan's investment portfolio. Employees bear the investment risk in defined contribution plans, while defined benefit plans place investment risk on the employer. Blue-collar workers are more likely to have defined benefit plans as are workers in large firms and in unionized firms. Defined contribution plans are more common among professionals and highly paid white-collar workers than among blue-collar workers.

In some instances employees can move between employers and remain in the same plan. These multi-employer plans are established through collective bargaining agreements between two or more employers and a single union. These plans are prevalent in industries where there are many small firms, where employees in an industry are members of a common union, and where the nature of the work frequently shifts employees from one firm to another. Many union workers in the construction, trucking, and garment industries are covered by multi-employer plans.

Regulation of Private Pensions

Along with the growth of private pensions came a growing concern over the ability and willingness of firms to meet their pension promises. In some cases, employees with long service were arbitrarily denied benefits and some defined benefit plans did not set aside enough funds to guarantee the payment of benefits. The well-publicized collapse of some major plans prompted the Congress to enact the Employee Retirement Income Security Act of 1974. This Act, which is usually referred to as ERISA, established participation and vesting standards. The law also established standards for all parties that have control over pension plan assets to ensure that funds are managed in the best interests of plan participants.

ERISA also created a Federal agency, the Pension Benefit Guaranty Corporation to pay benefits when underfunded plans are terminated. The Corporation raises funds through a premium on existing plans and by taking over some of the assets of firms that terminate plans. The premium, which is set by law, is now too low to cover the pension commitments that have been assumed by this Corporation. Legislative initiatives to raise the premium and close some loopholes in current law that have allowed firms to dump pension liabilities on the Corporation have yet to be enacted by the Congress. Currently, the premium is based on the number of employees covered by defined benefit plans and is a flat rate per participant.

The current premium structure does not reflect the risk that a plan will terminate without enough funds to pay benefits. Employers with fully funded plans who pose little risk to the Corporation have objected to higher premiums that are not tied to legislative reform to close the loopholes that have led to abuse. An alternative longer

range solution would be to develop a mechanism that would charge a higher premium to firms that are more likely to use the Corporation guarantee. A risk-related premium would have the added benefit of reducing incentives to underfund pension commitments.

Amendments to ERISA established liability rules for employers withdrawing from multi-employer plans. There have been numerous court challenges to the constitutionality of these multi-employer amendments. In some cases, when the owner of a business dies or retires, or when the number of workers employed by the business declines sharply, the firm must make a substantial payment to the pension fund even though pension contributions stipulated in the union contract have always been paid. Some small companies claim that the withdrawal liability is greater than the value of their companies.

The Employee Retirement Income Security Act of 1974 did not change the voluntary nature of private pension plans. No employer is required to have a pension, and a plan may be terminated as long as employee rights to previously accrued benefits are protected. Recently, several firms with defined benefit plans have terminated their pension plans in order to gain access to assets in the plan that had accumulated in excess of liabilities; these plans were overfunded. This overfunding was caused by an increase in the interest rates that are used to measure liabilities and by increases in the value of assets held by the plans. ERISA prohibits the withdrawal of assets from an ongoing plan, but the law allows for the reversion of excess assets to the plan sponsor when a plan is terminated. These rules are consistent with the risk-sharing principles of defined benefit plans. Firms bear the risk of poor portfolio performance in defined benefit plans; they are also legally entitled to investment returns in excess of those needed to pay benefits when a plan is terminated.

Many of the firms that terminated plans to acquire excess assets maintained identical or similar plans after the original plan was terminated. Recent Administration guidelines clarified the obligations of firms in these circumstances. Plan members are protected from any future downturns in the value of assets in the pension fund after excess assets are withdrawn by a requirement that accrued rights to pensions be secured through the purchase of third-party annuity contracts. This ruling was very controversial. Many observers feel that some or all of the excess assets that accumulate in a defined benefit plan should be used for retirement benefits.

Effects of Regulation

As demonstrated in the debate surrounding excess assets, the arguments over the merits of ERISA that preceded its passage have continued. Some see the law as burdensome and unnecessary. Many opponents predicted that the law would lead to massive terminations of

pension plans. In fact, pension coverage has grown since the 1974 Act was passed, although at a slower rate than in the previous two decades. Proponents see the 1974 Act as a necessary protection for workers that has had little impact on responsible employers.

Whatever the merits of ERISA, it now governs a major segment of the economy. The amount of funds regulated by the Act is nearly \$1 trillion and is projected to grow rapidly. The bulk of these funds is invested in corporate equities and bonds, and the remainder in government securities, mortgages, and other investments. The investment decisions made by the managers of pension plans are important not only because they affect retirement income but also because they affect the allocation of a significant amount of resources in the economy.

There is some evidence that pension funds have experienced low rates of return relative to other invested funds over the past decade. It is possible that the return to pension funds has been reduced by restrictions that ERISA places on investments and by the incentives faced by plan managers. The 1974 Act generally prohibits all transactions between interested parties. These prohibitions may actually deter some investments that are in the plan's best interest. Although exemptions to the prohibited transactions rule can be obtained from the Department of Labor, there have been many complaints that the process limits profitable activities because it is time-consuming and expensive.

The incentives of fund managers have also been questioned. The 1974 Act is interpreted to preclude compensation that is based on the performance of the portfolio under management. Because compensation is based on management fees and transactions costs, fund managers have an incentive to engage in transactions that may not increase the overall profitability of the fund. As pension funds grow in importance, these incentives are receiving increasing amounts of attention.

Rationale for Private Pensions

Why do employers offer pension plans? The tax advantages of pension plans are one explanation, but taxes do not explain the important features of most plans. Tax advantages can be secured through defined contribution plans that have little effect on the decision to remain with the plan sponsor, or defined benefit plans that exert a strong influence on employee turnover. Most workers belong to defined benefit plans; these plans are designed to provide very strong incentives to stay with a firm up to some age and then strong incentives to retire after that. The incentives to retire can peak at 65 or later, but many plans encourage earlier retirement. There is an abundance of evidence that workers respond to these incentives.

The predominance of defined benefit plans indicates that the incentives inherent in these plans are important in explaining their existence. The preference for defined benefit plans is expressed by both employers and employees and demonstrated in the outcome of collective bargaining agreements.

Why do pension plans have these incentives? An answer that is consistent with the evidence is that incentives are needed to ensure that the worker does not stay on past the time when total wages over a career exceed the worker's contribution to total output. Under some wage structures, workers are paid less than the value of their work at early stages of their careers and more than the value of their work at the end of their careers. There are several explanations for the divergence of pay and productivity. Some explanations are based on the fact that employers need a way to encourage highly trained workers to stay long enough to recoup training costs. Other explanations are based on the ability of employers to observe and reward work only after it is completed. In some cases employers may not want to lower the wages of older workers when their productivity begins to decline. All explanations lead to the conclusion that the observed pattern of wages and pensions is more attractive to both the employer and employee than a wage that increases less over a career and is more closely tied to productivity.

Although this wage structure is beneficial to both sides in the employment relationship, it encourages complaints by older workers even though these same workers benefited from the system when they were younger. Workers near retirement may prefer to continue working at high wages and accruing additional pension benefits. The fact that this option is not available has led to complaints that pension systems discriminate against older workers. Demographic trends have focused attention on these complaints because many people believe that the budgetary pressures on the social security system created by the baby boom can be relieved if the elderly are encouraged to work. The elimination of pension incentives to retire is sometimes called pension neutrality. Pension neutrality might seem like a good idea now, especially for today's older workers, but today's younger workers—tomorrow's elderly—could be worse off as a result because pension neutral schemes may preclude the compensation arrangements that are most attractive to both employers and employees. Moreover, pension neutrality might actually reduce rather than increase retirement ages in the future when demographic pressures are even greater. Defined benefit pensions do encourage retirement at some age. But they also postpone retirement before that age. With pension neutrality and the wage patterns that would go with it—

lower wage rates for those past mid-career—workers in the future may well choose earlier retirement dates.

Women and Pensions

The relatively high rates of poverty among elderly single women have focused attention on the pension rights of women. About three-quarters of the difference between incomes of elderly men and women can be explained by pension income.

The financial position of elderly single women is likely to improve in the future for several reasons. Women have entered the labor force in record numbers in the past few decades and, consequently, future generations of elderly women will have more income from pensions. Recent judicial and legislative actions have also affected the retirement resources available to women. A 1983 Supreme Court ruling, for instance, required that pension plans make payments that are based on gender-neutral actuarial tables. Prior to the ruling some plans paid lower monthly benefits to women because, on average, women were expected to collect those benefits for more years. That actuarial adjustment is no longer allowed. The new ruling may increase pension benefits for some women and reduce benefits for some men. Alternatively, lump sum distributions of accumulated assets may increase, depriving some retirees of the advantages of group investment plans.

Recent legislation has also altered the pension rights of women. Under the Retirement Equity Act of 1984, pension plans are required to pay a survivor's benefit to the spouse of any vested plan participant who dies. Prior to the 1984 Act, some spouses received no benefits unless the plan participant was close to retirement age at death. The new law also requires that pension payments after retirement be made to both the plan participant and the surviving spouse unless both spouses elected another option. Previously, retirees could select, without the formal consent of a spouse, a payment plan that provided benefits only while the retiree lived. Monthly payments were higher if this option was chosen, but the spouse received no payments after the retiree died.

In addition, the Retirement Equity Act changed ERISA rules to accommodate what are believed to be normal career patterns of women. Pension coverage now must begin at age 21; the previous minimum was 25. The new law also strengthened the vesting rights of employees who have a break in service with a single employer. The intent of these changes was to increase the pension benefits of women.

The debate surrounding these changes was much like the debate over the Employee Retirement Income Security Act. Some see the changes as valuable protections for women while others see them as

intrusive burdens that suppress important economic forces. Proposed extensions of the Retirement Equity Act illustrate some features of this debate. Many supporters of this Act want to require earlier vesting rules and plans designed so that benefits are portable, or easily transferred among employers without loss. At present, most defined benefit plans require 10 years of service before benefits are vested and, even when benefits are vested, inflation rapidly erodes pension rights acquired in a prior job.

But these features of pension plans are not accidental; they were designed to reduce turnover. If employers cannot reduce turnover with pension plans, they may have little interest in providing pensions especially now that individual retirement accounts offer essentially the same tax advantages. Thus, rules that require portability and vesting could increase the pension benefits for workers who are employed in firms that have plans, but they could also reduce the number of firms that offer pensions.

POLICY IMPLICATIONS: PRIVATE AND SOCIAL SECURITY RESOURCES

The economic status of the elderly is likely to improve in the future. Tomorrow's elderly will earn more income throughout their lives than earlier generations, and thus will accumulate more resources for retirement.

A growing fraction of retirement resources will come from private pension plans. The coverage and security of pension plans has increased substantially since 1950. With the vesting and fiduciary standards established by the Employee Retirement Income Security Act and benefits insured by the Pension Benefit Guaranty Corporation, retired workers can be more confident of receiving benefits. Attention is now focusing on policies that may increase the rate of return to pension funds. New tax rules have also made it easier and more attractive to achieve retirement objectives. Foremost is the introduction of individual retirement accounts, which allow immediate tax deductions and tax-exempt earnings for funds deposited in an account that is maintained until at least the age of 59½. The 23 percent across-the-board reduction in marginal tax rates legislated in the Economic Recovery Tax Act of 1981 should also stimulate private saving by increasing the rate of return available to savers. Also important is the effectively tax-free accumulation of assets through pension funds. The objective of all these tax provisions is to induce individuals to voluntarily allocate more of their lifetime resources toward providing an adequate standard of living in the retirement years.

Social security payments per beneficiary will also grow despite the increase in the fraction of the population over 65. Because the current benefit formula gives workers full credit for all the productivity gains made by the economy during their working lives, real benefits per person are scheduled to triple over the next 75 years.

The aging of the population will not go unnoticed. The Social Security Administration projects that in 2040 outlays to support the old-age, disability, and hospital insurance programs of social security will be nearly 25 percent of taxable payroll, compared with 14 percent in 1984. More than half this increase (63 percent) is attributable to increased outlays from the hospital insurance program. Outlays for supplemental medical insurance which are financed primarily from general revenues, are now equal to one-half of outlays for hospital insurance. The rate of growth of supplemental medical insurance suggests that its financing could require the equivalent of another 4 to 6 percent of taxable payroll. These benefits will require a significant tax increase, a substantial reduction in other government services, or an increase in total government indebtedness.

These projections have led many to conclude that private mechanisms for retirement savings must be enhanced to reduce the pressures on both the retirement and medical programs of the social security system. Many proposed changes in the private pension system have been advocated with this objective in mind. Such proposals include mandatory universal coverage, earlier vesting rules, legislation to increase the portability of pensions, and the elimination of private pension incentives to retire. These approaches are unlikely to significantly increase private retirement resources. Because pensions are only one part of a life-cycle retirement plan, a mandated increase in saving through pensions may be largely offset by reductions in other forms of private saving. In addition, many restrictions on pensions may end employers' willingness to offer them, defeating the original objective of the restrictions entirely. Mandatory coverage is not the answer to this problem, however. The firms that do not now offer pensions, particularly small firms in the service sector, would be especially burdened if pension costs were imposed on them. The cost of establishing a pension plan tends to be relatively high for smaller firms, and their generally higher turnover rate adds further to the cost of administering a long-term contractual relationship. It does not make sense to penalize that sector which has provided much of the remarkable employment growth that has occurred in this country. Pressure on the social security system should not be reduced by limiting employment opportunities in a particularly dynamic sector of the economy.

The retirement incentives inherent in social security have also been questioned in light of demographic pressures on the system as a whole. The current social security system discourages work past the age of 65, and it encourages the elderly to seek part-time rather than full-time work. These features of social security were incorporated into the system when it was believed that older workers must be encouraged to leave the labor force in order to make room for new workers. The remarkable ability of the economy to absorb the new workers of the baby-boom generation and the new work patterns of women has refuted this fallacy. The energy and experience of the elderly represent an important national resource, and current policies unnecessarily discourage work even from those who are able and willing to be productive members of the labor force.

Some progress toward reducing the work disincentives in the social security system was made in the 1983 amendments. A modification of the earnings test is scheduled to reduce the implicit tax on earnings over the exempt limit from one-half to one-third starting in 1990. Serious consideration should be given to continuing the scheduled decrease and eliminating the earnings test entirely. Opposition to this proposal is often based on the fear that social security outlays would increase if the earnings test were eliminated. Higher social security payments to those who now work part time would increase social security payments. That increase would be offset to some extent by the additional social security and income taxes paid by all those aged 62 and over who increase their hours of work and by reductions in delayed retirement credits. The net effect on total social security outlays is uncertain. But even if the earnings test does reduce budget outlays, it is still hard to defend. The earnings test reduces the contribution of the elderly to the total output of the economy. It does not make good economic sense to curtail social security outlays by reducing the base that provides for transfers to the elderly.

The 1983 amendments will also reduce the current system's strong disincentives to work after the age of 65 by increasing the amount that is added to monthly benefits when workers postpone retirement. The late retirement benefit will be increased gradually beginning in 1987. When those increases are complete, the additional amount that is given to late retirees will be enough to make up for the fact that benefits begin at a later date. Full-time work after the age of 65 will no longer be penalized. In addition, the age at which the full primary benefit is payable will be raised from 65 to 67 gradually between the years 2000 and 2022. These changes will help to neutralize the impact of the social security system on a worker's decision to retire. The retirement incentives provided by private pension plans—incentives that vary considerably across firms—can be justified on the

ground that they create a bond between employers and employees that increases productivity and benefits both parties. This reasoning does not apply to social security. The social security benefit structure should not penalize workers who postpone retirement.

The economic status of the elderly has clearly improved over the past three decades. The elderly can now work less and still enjoy a higher standard of living than the elderly in the past. With good retirement policies that promote the efficient use of all resources, tomorrow's elderly will be even more secure. The 1983 amendments provide a start in improving the efficiency of the social security system. By reducing the current disincentives to work facing the elderly, these changes will reduce their dependence on social security and simultaneously encourage the efficient use of one of the Nation's most valuable resources, the elderly.

CHAPTER 6

The Market for Corporate Control

THE SUCCESS OF THE AMERICAN ECONOMY depends on competition. Competition stimulates managers to respond to rapidly evolving technologies. Competition requires that firms adapt to changing market demands and calls upon them to adjust to fluctuating capital market conditions. Competition breaks down entrenched market positions, unsettles comfortable managerial lives, and provides incentives for innovative forms of business organization and finance. In sum, competition plays a central role in the evolution of the economy: It promotes efficient modes of production and eliminates processes and organizational structures that have outlived their usefulness.

CONTROL OF PUBLICLY TRADED CORPORATIONS

Competition plays a particularly important role in the market for control of publicly traded corporations. This market determines who will operate the Nation's largest business enterprises and influences the business strategies that many of these organizations follow. The Nation's economy is strongly influenced by the performance of these publicly traded corporations. As of year-end 1983, the market value of the securities of these corporations amounted to \$2.5 trillion, about 22 percent of the value of the Nation's total asset base. With such a large portion of the Nation's wealth and productive capacity represented by these publicly traded corporations, the Nation has a compelling interest in maintaining their competitive and efficient economic performance.

These corporations are generally owned by stockholders who delegate substantial decisionmaking authority to a group of hired managers. Managers make the corporation's investment, pricing, production, and research and development decisions, and are primarily responsible for the corporation's success or failure. Typically, managers own a relatively small percentage of the firm's shares.

This delegation of authority from stockholders to management is highly efficient. It fosters specialization that allows managers to develop substantial firm-specific human capital. It also promotes devel-

opment of a class of talented professional managers knowledgeable about the operation of large, complex organizations. In addition, it reduces the costs of diversifying investors' portfolios and facilitates mobility of financial resources among corporations competing for capital. Indeed, separation of ownership and control has been a major reason for the success of the modern corporate form as a business entity.

The delegation of authority from stockholders to management is not, however, without risk to stockholders and the economy at large. In particular, the delegation creates a possibility that management will operate the corporation in management's best interests, and not in the best interests of the corporation's stockholders. Such divergences of interest can result because stockholders are concerned primarily with maximizing the value of their shares, while managers' incentives are often more complex and can involve assurances of continued employment by an independent, publicly traded corporation.

These divergent incentives can give rise to an agency problem within the corporation—a situation in which managers are poor agents for their stockholders because they do not act in the stockholders' best interests. The adverse consequences of this agency problem can be significant because, if unchecked, it can deter socially beneficial mergers, keep assets from being allocated to higher valued uses, impede adoption of more profitable capitalization plans, and otherwise prevent publicly traded corporations from making the largest possible contribution to aggregate economic performance.

INCENTIVES AND CORPORATE MANAGEMENT

The market generally relies upon two sets of incentive mechanisms to align management and stockholder interests. The first results from the operation of the labor market for management services. In this market, executives are hired and fired and compete for career opportunities. Here, corporations also establish incentive systems designed to stimulate employee productivity and, in order to align management and stockholder interests, often grant stock options to key management personnel.

There are, however, substantial limits to the practical effectiveness of this labor market. In particular, a management team may believe that it is maximizing the value of the corporation when, in fact, it is not. Under these circumstances, management will not change corporate strategy on its own accord. Moreover, unless stockholders independently conclude that corporate performance can be improved by changing management teams, and unless some stockholders mount an expensive proxy contest to oust incumbent management, a change in corporate strategy is unlikely to occur. The labor market for man-

agement services can thereby allow a corporation to continue to be controlled by an entrenched management that does not maximize the value of the corporation's shares.

Under these circumstances, the external market for corporate control provides an important set of checks and balances. In this market, bidders directly approach stockholders and offer to purchase the corporation's shares at a premium above market price. These bidders often install new management in the event their bid succeeds. In some cases the bid is made directly by a new management team that believes it can improve the target corporation's performance.

The best assurance an incumbent management has against a successful takeover attempt is a stock price that is high relative to outsiders' estimates of the potential value of the corporation's shares. Managements that allocate capital to higher valued uses, operate efficiently, and adopt capitalization structures responsive to prevailing financial market conditions are less likely to be subject to takeovers than other management groups. Consequently, in order to prevail in the external market for corporate control, it is not enough that an incumbent management believes that it is doing a proper job, or that it persuades stockholders that it is doing so. Instead, management must demonstrate that its performance is competitive with the performance of other potential managers, and the value of management's performance must be reflected in the corporation's stock price. In this fashion, the external market for corporate control disciplines managers who believe they have maximized the value of the corporation's shares when, in fact, they have not.

Contests for corporate control are not, however, motivated solely by opportunities to improve management. As discussed below, takeovers can occur because of divergent estimates of future economic trends, opportunities to capitalize on economies of scale, distribution efficiencies, tax factors, and myriad other reasons. Therefore, even well-managed companies may find themselves subject to contests for corporate control that can be economically rational and beneficial for the economy as a whole.

RECENT TAKEOVER EXPERIENCE

The potential for divergent stockholder and management interests is most striking in hostile takeover attempts. In a hostile takeover attempt a bidder offers stockholders a substantial premium for the corporation's shares. In response, target management opposes the bid and typically resorts to defensive tactics such as litigation against the bidder, the sale of new securities to investors committed to support incumbent management, the repurchase of shares already owned by the bidder, or numerous other transactions. If successful, the defense

can leave management in continued control of the target corporation. However, as explained below, management's success in maintaining the corporation's independence comes at a high price for target stockholders who typically suffer substantial losses when a bid is defeated.

THE DEBATE OVER CONTESTS FOR CORPORATE CONTROL

Takeovers have recently become the subject of extensive debate in the Congress, among executives of the Nation's largest corporations, and in the media. The debate has been stimulated, in part, by a rapid increase in the size of corporations involved in takeover battles and by the evolution of new and controversial takeover techniques.

As explained below, recent financial and legal developments have made many of the largest publicly traded corporations susceptible to takeovers. Managements of these corporations have historically perceived themselves as acquirers and not as potential takeover targets. The recent exposure of these corporations to the discipline of the market for corporate control has caused substantial controversy and has stimulated calls for legislation that would deter takeovers attempted without a target management's approval. Some critics of the takeover process also claim that bidders use tactics that are designed to coerce stockholders into selling their shares, and that regulations governing bidder practices provide insufficient time for stockholders and management to evaluate and respond to takeover attempts. More fundamentally, critics of the takeover process question whether takeovers are beneficial for the economy. They suggest that many takeovers result from a pursuit of paper profits that does not contribute to productivity. They also suggest that takeovers can damage the economy because they can increase potentially anticompetitive concentration of market power, distort the credit market, and reduce incentives for long-term investment.

Management defensive tactics are also often criticized. In particular, managements faced with unwelcome takeover attempts sometimes repurchase the would-be acquirer's shares at a premium over the market. This practice, commonly known as greenmail, can preclude a takeover premium from being paid to target stockholders whose shares are not repurchased. In other situations, target managements have sold additional stock to new shareholders who commit themselves to support management interests. Target managers have also filed numerous lawsuits opposing takeovers, and have mounted competing tender offers for the potential acquirer's shares. Critics object to these practices because they can be used by management to protect its tenure at stockholders' expense.

The outcome of this debate over takeover tactics is significant for the economy as a whole. The set of tactics permissible in contests for corporate control determines both the probability that takeover attempts will be made and the probability that they will eventually succeed. To the extent that government regulations impose costs on bidders, or reduce a bidder's chances for success, fewer takeover attempts will be made. This tends to insulate corporate managements from the competitive pressures of the external market for corporate control. Stockholders, as a group, will also suffer as a result of excessive regulation because it reduces the chance to earn takeover premiums. However, to the extent that takeover practices are abusive, either because they allow bidders to acquire corporations through manipulative means, or because they allow entrenched managements to defeat takeovers that are in stockholders' and the economy's best interests, certain controls may be appropriate.

POLICY CONSIDERATIONS

The central policy question regarding takeovers should be whether the benefits to the economy as a whole resulting from takeovers exceed their costs. As explained below, there is powerful evidence that takeovers as a group are beneficial. This evidence does not, however, suggest that takeovers are without costs or dangers. In particular, if the antitrust laws are not properly enforced, takeovers can lead to anticompetitive accumulations of market power.

Although extensive research has established that takeovers tend to be beneficial, not every takeover is successful in attaining its originally contemplated benefits, and there are many examples of takeovers that, in hindsight, appear to have been misguided. Takeovers should not, however, be singled out in this regard because investments in physical plant, research and development, petroleum exploration, and numerous other activities also often appear misguided in hindsight. However, because it is impossible to predict which takeovers will be unsuccessful, the takeover process must be evaluated in the aggregate, and cannot be assessed on the basis of isolated examples of failure or success.

In addition, even when takeovers succeed, some individuals and communities may be adversely affected if jobs are lost or plants and offices are shut down. The problems raised by such reallocations of assets are a proper subject of social concern, but they are not unique to takeover transactions. Instead, they result from the economy's need to adapt to changing circumstances. To the extent that takeovers are associated with reallocations that impose particularly high costs on specific individuals or communities, the appropriate govern-

ment response, if any, should be to ease local adjustment problems rather than to interfere with the takeover process itself.

Contests for corporate control are largely economic phenomena, and they can and should be understood as such. The policy debate need not be guided by anecdotal evidence that emphasizes isolated incidents that some critics perceive as abusive. Contests for corporate control have been studied in great detail, and this accumulated knowledge provides a foundation for sound public policy. Although much additional research remains to be done, and although there are not adequate explanations for all phenomena observed in the takeover market, the current state of knowledge strongly indicates that further Federal regulation of the takeover process, particularly insofar as it would make takeovers more costly, would be poor economic policy. The remainder of this chapter assesses the economy's recent experience with mergers and acquisitions, describes the debate over certain practices employed in the market for corporate control, and evaluates proposals for further Federal regulation of this market.

MERGER AND ACQUISITION ACTIVITY IN PERSPECTIVE

Contests for corporate control are part of a larger merger and acquisition process that plays an important role in the economy's adjustment to changing market circumstances. Merger and acquisition activity historically has run in cycles, with peaks occurring during periods of strong business growth. The first recorded peak in merger and acquisition activity occurred at the turn of the century, as the Nation recovered from the depression of 1893 and before it slipped into the recession of 1904. A second peak occurred between 1925 and 1930, a period of rapid economic growth followed by the Great Depression. Merger and acquisition activity remained subdued during the Depression and World War II. After 1945 the number of business combinations began a steady increase that culminated in a merger wave spanning the late 1960s and early 1970s.

Data describing the number and value of merger and acquisition transactions are presented in Table 6-1. Those data show that recent merger and acquisition activity, as measured by the number of reported transactions, has been at a rate less than half that reported in the 1960s. Although the number of transactions remains below previous peaks, the total value of merger and acquisition transactions has recently reached new highs. The announced value of merger and acquisition transactions reported in the first 9 months of 1984 was \$103 billion. On an annualized basis measured in constant 1983 dollars, this activity represents \$133 billion in mergers and acquisitions, an increase of about 19 percent over the previous peak recorded in

1968. Indeed, the average annual reported real value of mergers and acquisitions during 1981-84 is approximately 48 percent greater than the average reported during any 4 years of the late 1960s and early 1970s. Thus, fewer transactions have been generating a relatively large dollar volume of merger and acquisition activity.

TABLE 6-1.—*Number and value of merger and acquisition transactions, 1963-84*

[Values are in billions of dollars]

Year	FTC estimates of acquisitions of large firms in mining and manufacturing ¹			W.T. Grimm & Co. estimates of merger and acquisition activity		
	Number of transactions	Value of assets exchanged		Number of transactions ²	Value of consideration exchanged ³	
		Nominal dollars	Constant (1983) dollars		Nominal dollars	Constant (1983) dollars
1963	54	2.5	7.6	1,361	(*)	(*)
1964	73	2.3	6.9	1,950	(*)	(*)
1965	64	3.3	9.4	2,125	(*)	(*)
1966	76	3.3	9.3	2,377	(*)	(*)
1967	138	8.3	22.5	2,575	(*)	(*)
1968	174	12.6	32.8	4,462	43.0	112.2
1969	138	11.0	27.4	6,107	23.7	58.8
1970	91	5.9	13.9	5,152	16.4	38.6
1971	59	2.5	5.5	4,608	12.6	28.3
1972	60	1.9	4.1	4,801	16.7	36.0
1973	64	3.1	6.4	4,040	16.7	34.0
1974	62	4.5	8.4	2,861	12.5	23.4
1975	59	5.0	8.5	2,297	11.8	20.2
1976	82	6.3	10.3	2,276	20.0	32.5
1977	101	9.2	14.1	2,224	21.9	33.7
1978	111	10.7	15.4	2,106	34.2	49.0
1979	97	12.9	17.0	2,128	43.5	57.3
1980	(*)	(*)	(*)	1,889	44.3	53.5
1981	(*)	(*)	(*)	2,395	82.6	90.9
1982	(*)	(*)	(*)	2,346	53.8	55.9
1983	(*)	(*)	(*)	2,533	73.1	73.1
1984:						
9 months	(*)	(*)	(*)	1,899	103.2	99.5
Annualized	(*)	(*)	(*)	2,532	137.6	132.6

¹ "Large" firms are defined as those with assets of \$10 million or more. Excluded from the tabulation are firms for which asset data are not publicly available.

² The W.T. Grimm & Co. tabulations measure only publicly announced transactions and include transfers of ownership of 10 percent or more of a company's assets or equity, provided that the value of the transaction is at least \$500,000.

³ Includes only those transactions for which valuation data are publicly reported.

* Not available.

Source: Federal Trade Commission (Bureau of Economics) and W.T. Grimm & Co.

The large dollar volume of recent merger and acquisition activity is attributable primarily to a substantial increase in the size of the largest individual transactions, most of which involve publicly traded corporations. Of the 100 largest merger and acquisition transactions recorded through year-end 1983, measured in nominal terms, 65 occurred between 1981 and 1983, 24 occurred between 1979 and 1981, and only 11 occurred prior to 1979. Prior to 1976 the largest acquisition on record, measured in constant 1983 dollars, had a value of \$3.3 billion. Today, the record stands at \$13.3 billion. Indeed, transactions with a nominal value in excess of \$1 billion used to be rare and only 12 such transactions were recorded in the 12-year span

from 1969 to 1980. However, between 1981 and 1984 alone, there have been at least 45 such transactions.

These large mergers tend to be focused in specific industries. As Table 6-2 explains, five industries that account for less than 10 percent of national income—petroleum, banking and finance, insurance, mining and minerals, and food processing—accounted for one-half of all the consideration reported paid in mergers and acquisitions between 1981 and 1983.

TABLE 6-2.—*Value of merger and acquisition transactions, by industry, 1981-83*¹

Industry classification of seller	Nominal value (billions of dollars)	Percent of total	Cumulative percentage
Oil and gas	44.2	21.1	21.1
Banking and finance	23.4	11.2	32.3
Insurance	16.5	7.9	40.2
Mining and minerals	14.2	6.8	46.9
Food processing	8.0	3.8	50.8
Conglomerate	7.5	3.6	54.4
Transportation	6.8	3.3	57.6
Broadcasting	5.6	2.7	60.3
Retail	5.3	2.5	62.8
Brokerage and investment firms	5.1	2.4	65.2
Other	72.8	34.8	100.0
Total	209.5	100.0	

¹ Includes only those transactions for which valuation data are publicly reported. See Table 6-1, footnote 2.

Source: W.T. Grimm & Co.

Transactions in the petroleum industry have been particularly notable for their size. Between 1981 and 1983 the reported value of petroleum industry mergers and acquisitions exceeded \$44 billion. This accounts for more than a fifth of the value of mergers and acquisitions during that period. The pace of merger activity in the oil industry continued to be rapid into 1984, when \$29.2 billion was paid in three transactions alone. The Federal Trade Commission has concluded that merger and acquisition activity in the petroleum industry is attributable largely to changes in underlying market conditions. Among these changes are wider use of enhanced oil recovery techniques, divergent expectations concerning the future movement of crude oil prices, and phased decontrol of crude oil. In addition, the recent decline in demand for petroleum products has created excess capacity in the industry. Such excess capacity may make consolidation in the petroleum industry efficient and desirable. Some recent petroleum industry mergers are a part of that consolidation process.

In other industries, mergers and acquisitions are responses to new opportunities created by deregulation. Deregulation in the banking, finance, insurance, transportation, brokerage, and investment industries has opened new opportunities for distribution economies, as well as economies of scale and scope that can be achieved by mergers and acquisitions. Together, these recently deregulated industries ac-

count for about 25 percent of all merger and acquisition activity between 1981 and 1983.

A significant percentage of recent merger and acquisition activity thus appears to be related to competitive pressures to adapt to new market conditions. Accordingly, any policy that would influence merger and acquisition activity must recognize the valuable role these transactions play in allowing industries to adapt to changing circumstances and the costs that can be imposed by inhibiting such responses.

Another distinguishing characteristic of current merger experience is the prevalence of divestiture transactions. In a divestiture transaction, a parent corporation either spins off a subsidiary as a free-standing entity or sells it to another firm. Divestiture transactions currently account for about one-third of both the number and value of all merger and acquisition transactions.

Divestitures often occur when firms undo prior acquisitions that did not work out as planned, or when firms decide to raise cash to reduce debt generated by earlier acquisition programs, or to invest in new projects. In addition, many divestitures are currently designed to focus the parent corporation's operations in their most profitable lines of business. This represents a trend away from the conglomerate-type mergers characteristic of the late 1960s and early 1970s and toward less diversified corporate structures that focus on product lines in which the corporation has a relatively strong market position.

Current merger and acquisition activity is further characterized by a larger number of leveraged buyout and management buyout transactions. In a leveraged buyout, the acquiring firm borrows a large percentage of the purchase price by pledging the assets of the acquired firm as collateral for the loan. In a management buyout, the acquiring company is owned in whole or in part by the management of the acquired firm. Because management buyouts are often accompanied by substantial borrowing, management buyouts are also commonly leveraged buyouts.

Although leveraged and management buyouts are not novel, they are being used with increasing frequency in the acquisition of publicly traded firms. The value of leveraged buyouts of publicly traded companies increased rapidly from \$636 million in 1979 to \$7.1 billion in 1983. In 1983 leveraged buyouts accounted for about 19 percent of all takeovers of publicly traded companies and about 18 percent of the market value of those takeovers.

BENEFITS AND COSTS OF TAKEOVER TRANSACTIONS

Public policy toward takeovers should depend on whether these transactions benefit the economy. If, on balance, they promote efficient allocation of resources, the transactions are beneficial and should not be impeded by Federal or State policy. In contrast, if the costs of these transactions exceed their benefits by, for example, wasting scarce resources or causing anticompetitive increases in market power, then regulation of the takeover process may be appropriate.

The available evidence, however, is that mergers and acquisitions increase national wealth. They improve efficiency, transfer scarce resources to higher valued uses, and stimulate effective corporate management. They also help recapitalize firms so that their financial structures are more in line with prevailing market conditions. In addition, there is no evidence that mergers and acquisitions have, on any systematic basis, caused anticompetitive price increases.

These findings are consistent with the possibility that some individual transactions turn out to be misguided and generate losses for the economy at large. Public policy should not, however, be based on the outcomes of individual transactions, because it is impossible to predict in advance which transactions will succeed and which will fail. Public policy therefore must be based on aggregate trends describing the consequences of takeovers as a whole. On this criterion, there is no economic basis for regulations that would further restrict the merger and acquisition process. Indeed, the economic evidence suggests that existing regulations impose restraints that may deter potentially beneficial transactions.

STOCK MARKET PRICES AS A MEASURE OF BENEFITS AND COSTS

Ideally, a study of the costs and benefits of takeover transactions would evaluate the gains and losses resulting from each transaction on a case-by-case basis. In addition, each takeover transaction would be evaluated by objective and well-informed observers with strong incentives to render accurate and unbiased estimates of each transaction's likely consequences. Such an evaluation would also look behind the accounting techniques and book values employed by the parties, and would arrive at an assessment based on current market values and best estimates of future market trends.

In many ways, the behavior of prices quoted in the stock market provides just such an evaluation of the probable consequences of a takeover transaction. In the stock market, each takeover transaction is evaluated on its own merits by investors who, because they stand behind their assessments with real dollars placed at risk, have a pow-

erful incentive to judge accurately the outcome of individual takeover transactions. It is also well established that the stock market sees through accounting techniques and bases its evaluations on underlying market values. Moreover, there is extensive evidence that the stock market rapidly absorbs any information contained in the historic price patterns of stock trades. Therefore, even if the stock market goes astray in its assessment of the likely consequences of takeover transactions, such deviations would give rise to arbitrage opportunities that would return the market to a more unbiased and objective perspective. The market's evaluation of takeover transactions is therefore self-correcting over time.

Stock market prices thereby provide a reliable barometer of the likely consequences of takeover transactions. If the aggregate net change in the value of acquirers' and targets' shares is positive as a result of a takeover, then the transaction creates wealth and is beneficial. If the aggregate net change is negative, the transactions reduce wealth and are harmful.

EVIDENCE THAT TAKEOVERS ARE BENEFICIAL

The evidence is overwhelming that successful takeovers substantially increase the wealth of stockholders in target companies. Although estimates of the magnitude of the wealth increase vary, recent studies find average gains in the range of 16 to 34 percent of the value of the targets' shares.

The data regarding changes in the value of acquiring companies are not as uniform, but the best available evidence strongly confirms that the value of acquiring companies' shares also increases as the result of takeovers. A recent study of takeovers of 249 New York and American Stock Exchange traded companies concluded that the average stock price gain to bidding stockholders is about 2.3 percent. Although this gain appears small, especially in comparison with the gains accruing to target stockholders, it masks a significantly larger return on the assets acquired by the purchasing firm.

On average, an acquiring firm is four to five times larger than the firm it purchases. Because of this size difference, the average 2.3 percent gain in the stock price of the acquiring firm translates roughly into a 9 to 11 percent average return on the assets of target firms to bidding stockholders.

These results are consistent with the operation of an efficient capital market. On average, and over the long run, bidders will not desire or be able to complete acquisitions unless the acquisitions are profitable for the bidding firm. Indeed, bidders often terminate or reduce the price of their offers when scrutiny of the target leads them to conclude that the initial offer price was too high. Target

stockholders will similarly refuse to sell their shares unless their wealth increases as a result of the transaction. Economic theory therefore suggests, and the available evidence confirms, that merger and acquisition transactions are, on average, beneficial for stockholders in both bidder and target firms.

SOURCES OF GAIN FROM TAKEOVER ACTIVITY

The evidence is strong that takeovers generate aggregate net benefits to the economy. Although many potential sources of gain from these transactions can be identified, it is difficult to quantify the size of the gain that results from particular sources.

Production and distribution economies are one source of gain, particularly in transactions involving firms in related industries. An acquisition can also generate economies of scale and create opportunities for more efficient forms of distribution and contracting. Mergers and acquisitions can also promote technology transfers that might otherwise be unavailable to firms operating on a stand-alone basis. For example, some petroleum acquisitions have led to the transfer of enhanced recovery techniques that have improved yields from aging petroleum reservoirs. In addition, many recent studies have found that companies with larger market shares also have lower per unit costs. These studies suggest that the cost-reducing effects associated with larger market shares more than offset the increased prices that can, in some circumstances, result from having an industry composed of fewer firms with larger market shares.

Substantial gains can also result when a takeover causes assets to be shifted to higher valued uses. A retail chain may, for example, possess real estate that is more valuable as office sites than retail outlets. Although the retail chain may be well managed, if the company announces that it will not sell its real estate or put it to any use other than retailing, then the market has little incentive to value the firm's real estate at its current market price. Even if the market believes that it is inevitable that the firm's real estate will eventually be put to a higher valued use, the stock market will substantially discount the property's current market value because of uncertainty over when the transaction will occur and the price that the real estate will bring when sold. The announcement of a takeover attempt at a firm price eliminates much of this uncertainty and can account for a significant portion of the gains resulting from mergers and acquisitions.

Improved management is another possible source of gain from mergers and acquisitions. Evidence suggests that the stock price of target firms tends to fall over long periods well before a takeover attempt is announced. These firms may be disfavored by the market because they suffer from poor management. Takeovers of these firms

can discipline managements and impose new corporate strategies in place of unsuccessful ones. These findings do not establish that all target firms are poorly managed, and they do not suggest that management efficiencies are the dominant source of gain from mergers and acquisitions. They do, however, suggest that poor management at target firms cannot be discarded as a motive for takeovers, and that restraints on takeover activity can protect inefficient managers from the discipline of the marketplace.

DANGERS OF MERGER AND ACQUISITION ACTIVITY

Currently, four economic criticisms of takeovers are frequently voiced. They are that: (1) takeovers increase concentration and have adverse effects on competition; (2) tax-motivated takeovers can generate economic losses for the economy; (3) takeovers can crowd productive business projects out of capital markets; and (4) takeovers can create incentives for management to concentrate on short-term performance to the detriment of long-term corporate investment.

Effects on Competition and Concentration

There is no evidence that recent merger and acquisition transactions have caused anticompetitive price increases. The Department of Justice and the Federal Trade Commission engage in careful market-by-market analyses of mergers that raise a possibility of anticompetitive effects. These agencies have actively opposed mergers that have threatened to create anticompetitive market power. In addition, so as to assure continued competition in the marketplace, the antitrust enforcement agencies have required billions of dollars of divestitures in connection with large mergers and acquisitions.

Indeed, in order to contend that recent takeovers have been anticompetitive, critics would have to demonstrate that public and private enforcement of the antitrust laws has been inadequate. There is, however, no credible evidence that the antitrust laws have permitted business combinations that have resulted in any material lessening of competition. To the contrary, a recent study of the U.S. economy, conducted on a market-by-market basis, has found a widespread increase in competition between 1958 and 1980. In 1980 approximately three-quarters of economic activity occurred in effectively competitive product markets. About 20 percent of economic activity occurred in markets that are tightly oligopolistic, and only 5 percent occurred in markets dominated by a single firm. In contrast, in 1950, only about one-quarter of economic activity occurred in markets classified as competitive.

At the aggregate level, there is also no systematic evidence that merger and acquisition activity has, in any meaningful sense, caused a decrease in competition. Instead, the most recent data compiled by

the Federal Trade Commission, and presented in Table 6-3, show that in the 5-year period from 1977 through 1981 concentration of assets in the nonfinancial sector fell for the 50, 100, 150, and 200 largest firms.

TABLE 6-3.—*Concentration of assets in the nonfinancial sector, 1977-81*
(Percent)

Asset size group	1977	1978	1979	1980	1981
Top 50.....	22.7	22.3	21.9	22.4	22.2
Top 100.....	29.7	29.2	28.9	29.4	28.8
Top 150.....	35.5	34.0	33.7	34.0	33.3
Top 200.....	38.3	37.7	37.4	37.7	36.9

Source: Federal Trade Commission (Bureau of Economics), based on data from Compustat and Internal Revenue Service "Statistics of Income."

The relative stability often found in aggregate concentration series is, however, deceiving because it masks substantial turnover in the rank and identity of the largest firms. For example, of the 500 largest industrial firms measured in terms of 1955 sales (as reported in *Fortune* magazine), only 262 remained in the top 500 in 1980. Thus, individual firms find the marketplace much more competitive than aggregate concentration data suggest: A large market share today is hardly a guarantee that a firm will be able to retain that share in the face of new competition, changing markets, and evolving technology.

Tax-Motivated Mergers and Acquisitions

Takeovers can result in tax savings for the combined firm. For example, an acquisition may allow the combined company to make better use of tax loss carryforwards, as well as depreciation deductions and investment tax credits generated by new investment programs. Occasionally, a takeover bid will be accompanied by a proposal to reorganize the company or to spin off assets according to a plan designed to reduce the company's and stockholders' tax liabilities.

These tax incentives for mergers raise difficult policy issues. Because tax laws generally prevent the transfer of deductions and credits among corporations, as well as between corporations and their stockholders, and because tax losses are not refundable, some firms have an incentive to enter into transactions that would not occur but for their tax consequences. Some of these mergers may make little economic sense in the absence of their tax benefits. Accordingly, it is possible that the economy may, as measured by the efficient allocation of resources, be better off without these transactions.

On the other hand, for some companies such transactions provide a means of avoiding at least a portion of the adverse consequences

associated with nontransferable tax benefits. To that extent, tax-motivated transactions may actually reduce the risk associated with certain investment strategies and thereby ameliorate some of the distortions induced by the current tax system.

The solution to the potential problems raised by tax-motivated transactions is not, however, to place restraints on mergers and acquisitions. Instead, consideration should be given to modifications of the tax laws that would allow greater transferability of deductions and credits. Such modifications will remove a source of distortions inherent in the current tax system and eliminate incentives to engage in takeovers that are primarily tax motivated.

Effects on the Availability of Capital

Mergers and acquisitions are often financed by substantial borrowing. Concern is frequently raised that this borrowing, particularly for large takeovers, crowds out more productive applications of bank financing. This concern is unfounded.

As an initial matter, it should be recalled that takeover activity is productive and adds to aggregate wealth. In addition, takeover activity is, in essence, no different from other investment activities in which investors place money at risk by purchasing existing assets, such as real estate or shares of stock. Moreover, the borrowing required for corporate acquisitions does not impose a net new credit demand of equal magnitude on financial markets, because the proceeds are paid to stockholders of the acquired company who use the funds to make other investments or retire other loans. Thus, large portions of borrowings used to finance acquisitions flow back into the capital markets where they again finance credit needs.

The amount of borrowing used for large corporate transactions is also small relative to the size of the total capital market. During the first 7 months of 1984, a particularly active period for leveraged takeovers, loans for the purpose of completing large acquisitions amounted to about \$21.2 billion. This constitutes about 1.3 percent of the \$1.65 trillion of commercial bank loans and investments outstanding during the same period, and a substantially smaller percentage of aggregate borrowing in the economy. Such loans are unlikely to have more than minor, isolated, and transitory effects on interest rates or on the availability of capital.

Effects on Long-Term Investment by Publicly Traded Companies

Recently, some critics have complained that takeovers reduce long-term business investment. They contend that the stock market undervalues long-term investments. Therefore, in order to prevent takeover attempts induced by allegedly low and "unreasonable" stock

market valuations, it is said that managers of publicly traded firms avoid long-term investment projects.

Although this argument is presented by leading executives and prominent takeover attorneys, there is no credible evidence to support it. Proponents of this theory have presented no examples of long-term investments that have been forgone because of a fear of takeovers. Indeed, even if such examples could be found, they would not constitute a loss to the economy unless other firms did not have comparable incentives to make the allegedly forgone investments.

This criticism of takeovers is also internally inconsistent. If a company continually avoids long-term investment, eventually it becomes unable to compete with other firms that have engaged in the appropriate forms of long-term investment. Thus, if a company seeks to maintain its stock price valuation in order to avoid a takeover, then at some point it must engage in appropriate forms of long-term investment simply to remain competitive.

There is also substantial evidence suggesting that the stock market does not penalize investment simply because it is long term. The stock prices of many publicly traded companies reflect high price-earnings ratios because of the market's assessment that these companies' long-term investment programs may be successful. The fact that some companies' long-term investments do not enhance the value of their shares reflects the market's assessment of the likely outcome of the particular investment programs, and is not a criticism of the long-term nature of the program *per se*. In addition, there is substantial evidence that the market accurately reflects all publicly available information about a corporation's finances and strategic plans. Because research and development, capital expenditure, and other long-term investment information is publicly available, the evidence suggests that these data are accurately incorporated into the stock market's valuation of a corporation's shares along with other publicly available information describing a corporation's prospects.

REGULATING BIDDER TACTICS

Recent calls for regulation of bidder tactics in takeover contests are based on claims that some tactics are coercive, and that they fail to allow stockholders adequate time to inform themselves about the bidder's offer. Critics also claim that target managements do not have adequate time to mount defenses against proposed takeovers. In addition, some critics question whether takeovers are, on the whole, beneficial for the economy. These critics suggest that takeovers should be subject to regulations that would make them more expensive and difficult to complete.

There is, however, little credible economic evidence that tactics used by bidders in takeover contests should be subject to further regulation. To the contrary, the available evidence is that any regulatory change that would increase the cost of mounting takeovers is likely to deter takeovers and thereby cause losses for the economy. Viewed from this perspective, proposals to increase regulation of bidder practices are not persuasive.

THE ECONOMIC CONSEQUENCES OF THE WILLIAMS ACT

Bidder practices are already subject to extensive regulation under the Williams Act. The Williams Act was adopted in 1968, partially in response to complaints about "Saturday Night Specials," takeover bids that were left open for a short period of time, often only a few days. Congress was concerned that stockholders had inadequate time to evaluate the merits of the proposed takeover bid. In response to this problem, regulations adopted pursuant to the Williams Act require that tender offers be open for a minimum of 20 business days. If an offer is oversubscribed, the offeror must purchase the shares on a *pro rata* basis, and cannot purchase them on a first-come-first-served basis. Accordingly, the Act ensures that tender offers are made on equal terms to all target company stockholders. In addition, the Williams Act requires that any person who acquires 5 percent of a company's shares make that fact public within 10 days, and disclose plans, if any, for the company in which the stock is acquired.

The Securities and Exchange Commission (SEC) has concluded that the Williams Act successfully provides stockholders with sufficient time to evaluate takeover proposals. In particular, the Commission has found that the 20-business-day minimum offering period has resulted in a negligible number of complaints from stockholders. Thus, it appears that the Act has successfully protected stockholders from whatever abuses might result from short offering periods.

The benefits that the Williams Act generates are not, however, achieved without costs. Since adoption of the Williams Act, takeovers have become more expensive for initial bidders because target managements have more time to mount takeover defenses or to find alternate purchasers. The Williams Act also limits bidders' ability to acquire toehold positions in target companies. These effects of the Williams Act are reflected in the higher premiums that bidders have been required to pay in order to complete takeovers. Estimates are that the Williams Act has increased the average cash tender premium paid to target stockholders from 32 percent before passage of the Act to 53 percent after the Act's passage and that these increased premiums have caused correspondingly lower returns to bidders. Because the Act has decreased the returns to initial bidders, it has likely

caused a decrease in the number of takeovers and a decrease in the gains resulting from takeover activity.

Therefore, although the Williams Act has benefited stockholders of companies that have, in spite of the additional costs imposed by the Act, become subject to takeover attempts, it has imposed two other sorts of costs on stockholders. First, stockholders in companies that would have received takeover bids but for the higher premiums induced by the Act have suffered losses measured by the value of the forgone premiums. Second, stockholders in companies that would have made takeover bids but for the Act's requirements have forgone the gains that would have resulted from the deterred transactions.

The increased premiums paid to target stockholders as a result of the Williams Act do not, however, represent an increase in aggregate national wealth. Instead, the premiums are simply a reallocation of the gains resulting from takeovers away from bidding company stockholders to target company stockholders. The losses caused by the Williams Act are, in contrast, real economic losses and represent wealth forgone as a result of beneficial transactions deterred by the Act. Therefore, unless society places greater value on the redistribution of gains to target stockholders than on aggregate wealth effects, the costs of the Williams Act, at the margin, currently appear to outweigh its benefits.

THE DEBATE OVER BIDDER TACTICS

Currently, much of the criticism of bidder tactics emanates from management groups concerned that their companies will become targets of takeover attempts. These managements claim that certain bidder tactics can coerce stockholders into tendering their shares, and that the minimum offering period under the Williams Act is too short.

"Two-Tier Offers"

The bidder practice most frequently criticized as coercive is the "two-tier" tender offer. In a two-tier offer, the bidder makes a uniform proposal to all target company stockholders. Typically, the proposal is to pay a higher price, in cash, for the first half of all securities tendered, and a lower price, in securities, for all remaining shares. Critics claim that two-tier offers can stampede stockholders into tendering their shares, even though they do not want to accept the offer as a whole, because stockholders are afraid that unless they subscribe to the high-valued front end of the offer they will be forced to accept the lower valued back end.

There is, however, no systematic evidence that two-tier offers have such a coercive effect, and there is substantial evidence that the market prevents such abuses from occurring. In particular, the market for

takeovers is competitive and bidders who attempt to structure two-tier offers that result in a below-market price for the company's assets can expect to find themselves outbid by a superior offer with a premium closer to the target's actual market value.

Indeed, the SEC has found that, on average, there is no statistically significant difference between the blended premium offered in a two-tier bid (calculated as the weighted average of the higher valued front end and the lower valued back end of the offer) and the premium offered in single-tier bids. Moreover, data collected by the SEC show that in takeover battles between competing single-tier and two-tier bids the outcome of the contest is determined by the relative values of the competing offers. Thus, no single-tier bid has ever lost to a two-tier bid with a lower blended premium, despite the allegedly coercive effect of the two-tier bid.

In addition, two-tier tender offers can be desirable for target stockholders and managements. SEC data show that two-tier offers are used in friendly takeovers about as often as they are used in hostile takeover attempts. There are at least two reasons that target stockholders could prefer a two-tier bid. If a two-tier offer is properly structured, target stockholders who accept securities in the back end of the transaction may be able to defer tax due on the appreciated value of their shares. In addition, the acquirer may find that it is easier to finance the transaction by issuing securities for the back end than by borrowing funds from banks or through other financing mechanisms. If these savings induce the bidder to offer a higher blended premium, then the two-tier offer can also be beneficial for the target's stockholders.

Minimum Offering Periods

Critics of bidder tactics also object to the 20-business-day minimum offering period provided under the Williams Act. They claim 20 business days is not sufficient time for management of the target firm to fend off the offer or to identify higher alternative bids.

The 20-business-day minimum offering period required under the Williams Act provides approximately a calendar month within which a target can mount a defense. A study of 183 takeovers between 1962 and 1980 involving firms listed on the New York and American Stock Exchanges found that approximately 26 percent of these contests involved multiple bidders. The current minimum offering period thus appears to provide ample time for many targets to find alternate bidders. In addition, longer minimum offering periods would probably generate more of the same costs that accompanied adoption of the Williams Act: They would increase the cost of takeovers, reduce the total number of takeovers, reduce the benefits generated by the takeover process, and increase the premiums paid to stockholders of

the fewer companies who receive offers. Such an outcome is not in the national interest because it reduces the aggregate gain from the takeover process and increases the resources spent on nonproductive bargaining over the allocation of these gains.

REGULATING DEFENSIVE TACTICS

The debate over defensive tactics is, in form and substance, quite different than the debate over bidder tactics. Some commentators suggest that a target's management should be allowed great latitude in fashioning defensive tactics against takeovers because management must protect stockholders against abusive bidder techniques. However, as just explained, there is little credible evidence that bidder tactics are abusive.

Instead, the more fundamental debate concerns when, if ever, a target management should be permitted to oppose a takeover that promises a significant premium to the corporation's stockholders. This question arises primarily because of the possibility that managements will attempt to maintain control over corporations despite the fact that stockholders would benefit by tendering their shares.

CONSEQUENCES OF DEFENSIVE TACTICS

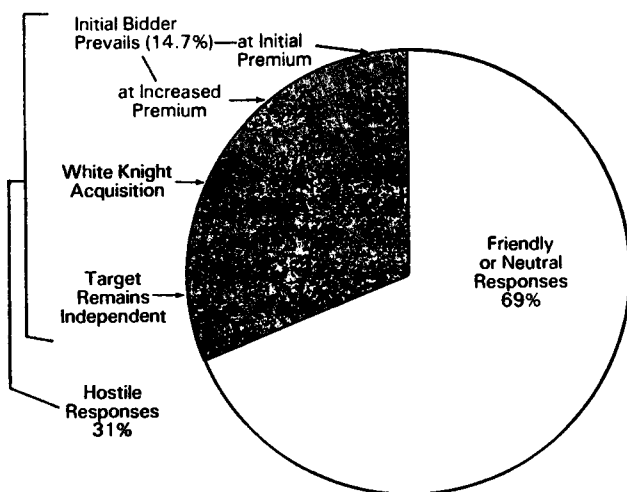
Chart 6-1 describes some of the consequences of target management opposition to takeover attempts. Between 1978 and 1983 there were a total of 429 tender offers involving publicly traded corporations. Sixty-nine percent of these offers were uncontested and 31 percent drew a hostile response.

From target stockholders' perspective, management opposition can improve the premium offered by the bidder either by inducing a higher bid from a "white knight" or by causing the initial bidder to increase its offer. Chart 6-1 shows that white knight bids and increased bids by initial bidders occur in 16.1 percent of all takeovers, or in about half of contested takeovers. In 6.5 percent of all takeovers (or about 21 percent of contested takeovers), managements' opposition has no effect on the identity of the prevailing bidder or on the premium paid. However, in 8.4 percent of all takeovers (or about 27 percent of contested takeovers) management succeeds in defeating the offer. In these cases target stockholders suffer substantial losses that various studies have estimated as ranging from 15 to 52 percent of the value that could have been obtained had the offer not been defeated.

Accordingly, from a target stockholder's perspective, it is significant to determine whether management is opposing a takeover in order to (1) start a bidding war or otherwise induce a higher price

Chart 6-1

Target Management Responses to and Outcomes of Tender Offers, 1978-83



Note.—Based on 429 tender offers.

Source: W.T. Grimm & Co.

for the company's shares, or (2) defeat a profitable bid so that the company remains independent and management retains its position. In the first case, management opposition can benefit stockholders so long as the opposition does not become so vigorous that it drives away all bidders. In the second case, if the opposition succeeds, it is almost certain to harm stockholders' financial interests by causing a substantial decline in the value of their shares.

Management's decision to oppose a tender offer is not, however, a random event. A study of 105 cash tender offers between 1972 and 1977 found that in contested takeovers the average potential wealth gain to management of the target company is significantly lower than in uncontested takeovers. This result occurs, in part, because target managements that oppose takeovers tend to own less stock in their companies than managements that elect not to contest takeovers. A recent survey of senior executives has also found that some executives place stockholder interests secondary to their personal interests in the

survival of the corporation in which they have invested so much of their professional careers. This finding suggests that some managements do in fact respond to takeover bids with tactics designed to serve management's own interest, and not stockholders'.

However, even successful defensive tactics that increase target stockholders' premiums merely transfer wealth and do not increase aggregate wealth (except, perhaps, in instances when defensive tactics attract a higher white knight bid). Such contests over the allocation of gains are nonproductive from society's perspective. Indeed, if defensive tactics deter takeovers that would otherwise be beneficial, they can cause net losses for the economy as a whole. Accordingly, any defensive technique, even if calculated to increase the premium offered to target stockholders, runs the risk of causing a loss for the economy.

This risk is not, however, a sufficient basis on which to ban defensive tactics. There is no economically correct solution to the question of how the gains resulting from acquisitions should be distributed among bidders and targets. Bidders can validly claim that their activities generate the gains resulting from takeovers and that they are therefore entitled to those gains. However, targets can claim that takeover gains are not attainable without their assets, and that they have a right to negotiate for as much of those gains as they can capture. Moreover, a rule that requires stockholders to sell their shares simply because a bid at a premium has been made would not be good public policy. No such requirements are placed on privately held firms, and if there is no market failure in the governance of publicly traded firms, then there is no principled basis on which to prevent stockholders in target firms from negotiating over a share of those gains, even at the risk of losing some of those gains.

THE DEFINITION OF ABUSIVE DEFENSIVE TACTICS

The distinction between defensive tactics designed to increase bid premiums and those designed to defeat tender offers suggests a principled basis for distinguishing between abusive and nonabusive defensive tactics. As an initial matter, if a defensive tactic is explicitly adopted or sanctioned by the corporation's stockholders, it should not be considered abusive, regardless of the extent to which it might deter takeovers. Stockholders are responsible for acting in their own best interests. They have strong incentives to adopt whatever defensive measures they believe will maximize the value of the corporation's shares. Some corporations' stockholders might adopt anti-takeover measures including, for example, staggered elections for positions on the board of directors, super-majority requirements for the approval of mergers, or equal price provisions to deter two-tier

offers. Other corporations' stockholders may refuse to adopt any anti-takeover measures and may even take steps designed to invite takeover bids. Indeed, in some publicly traded corporations, large stockholders have specifically sought to induce takeover bids so as to increase the value of their holdings.

The market can be expected to respond to stockholders' decisions about defensive tactics by either depressing the price of the company's shares (if the tactics make takeovers less likely or reduce the expected value of the premium) or by increasing the price of the company's shares (if the tactics make takeovers more likely or increase the expected value of the premium). Thus, the market is composed of a variety of companies with a range of takeover policies, and the implications of each company's takeover policy will be reflected in the market valuation of each firm's shares.

Defensive tactics are abusive only when management exercises its delegated discretion so as to promote management interests over stockholder interests. If a defensive tactic is used to increase the target stockholders' share of gains, but not to defeat the offer, the defensive tactic is being applied to promote the target stockholders' interests and should not be considered abusive. In contrast, a defensive tactic that seeks to prevent a takeover at a premium harms target stockholders by depriving them of the opportunity to accept the bidder's offer. On average, such defensive tactics also prevent bidders from realizing the benefits that result from takeovers. Accordingly, these tactics can be considered abusive and are a legitimate subject of concern to policymakers.

In many instances it will be difficult to distinguish whether a particular tactic is abusive. Indeed, as explained below, many commonly criticized defensive tactics have quite complex effects and cannot be labeled as abusive in all situations. Blanket rules to prohibit certain defensive tactics can therefore have unintended and undesirable side effects. Moreover, it is generally possible for managements to devise new strategies that circumvent specific statutory prohibitions. When potential abuses exist, case-by-case consideration of management defensive tactics by the courts is therefore likely to be a more effective remedy than an inflexible legislative stricture.

DEFENSIVE TACTICS FREQUENTLY CRITICIZED AS ABUSIVE

Targeted share repurchases ("greenmail") and severance contracts triggered by successful takeovers ("golden parachutes") are frequently criticized as abusive and are often the subject of debate. These practices are not, however, invariably abusive and are not proper subjects for Federal regulation.

Targeted Share Repurchases

Targeted share repurchases occur when a company buys back its stock from a large shareholder at a price greater than that at which the stock trades on the market. Often the stockholder whose shares are repurchased has proposed a takeover or other transaction that is opposed by the target's management. Critics of these repurchases claim the practice is abusive because management is using the corporation's resources to buy out a potential bidder and thereby preclude stockholders from earning a premium for their shares. Critics also claim the practice is unfair because it does not give all stockholders an equal opportunity to tender their shares. Indeed, repurchases can be used by target managements to "buy-off" potential acquirers and to entrench management's position at stockholders' expense. In many situations such repurchases can be abusive. This does not, however, establish that repurchases are invariably abusive or that they should be regulated by Federal law.

Targeted share repurchases have complex effects on the stock price of the repurchasing company. The announcement that a large blockholder has acquired a position causes a significant increase in the price of the target company's shares. The stock price increases because the acquisition signals a potential takeover of the target firm. A subsequent announcement of a repurchase causes a significant decline in the price of the target company's shares because it signals the withdrawal of a potential bidder and because the premium paid dilutes the value of remaining stockholders' equity in the firm.

The evidence regarding the net effect of such repurchases on the price of the target's shares, measured from the initial acquisition through to the repurchase, is mixed. Some studies conclude that stockholders reap substantial and statistically significant benefits over the period spanning the initial acquisition and subsequent repurchase. An examination of the question by the SEC has, however, found statistically insignificant evidence that stockholders suffer small losses over this period. SEC data also show that companies that engage in targeted share repurchases are often either acquired, recapitalized, or involved in management changes following the repurchase. Because a repurchase can act as a signal that the corporation is vulnerable to takeover attempts, the investment leading to the repurchase may therefore be a valuable stimulus for more fundamental and beneficial corporate changes.

Targeted share repurchases can also be beneficial because they can reduce the expected cost of takeover attempts, thereby increasing the number of such attempts and the number of takeovers. To the extent that the prospect of repurchases increases the volume of beneficial

takeover activity, repurchase premiums can be beneficial for the economy as a whole.

Thus, although there are situations in which repurchases can be abusive, there are also situations in which repurchases are part of a sequence of events that is beneficial for stockholders. Accordingly, an across-the-board ban on targeted share repurchases would be overly broad, and it appears more reasonable to allow the merits of controversial repurchases to be judged on a case-by-case basis by the courts. Moreover, even if the Federal Government sought to prohibit repurchases, the prohibition could easily be evaded. Companies could, for example, trade assets or issue new and complex securities in return for a large stockholder's equity position. Unless the values of these assets and securities were readily ascertainable, it would be most difficult to determine whether the company paid a premium to the large stockholder who is bought out. In addition, corporations that want to ensure that they are not subject to demands for targeted share repurchases can adopt charter amendments prohibiting such transactions. Large New York Stock Exchange traded corporations have recently adopted such amendments. Corporations thus already have it within their power to protect themselves against whatever abuses they perceive in targeted share repurchases and Federal Government regulation can add little to corporations' ability to protect themselves. Indeed, as explained below, it is preferable to allow individual companies to decide whether and how they want to protect themselves than to have the Federal Government dictate an inflexible nationwide policy.

Severance Contracts

Another controversial tactic used by defending managements is the granting of lucrative severance agreements that take effect in the event of a change in corporate control. Critics of these "golden parachutes" claim they represent an attempt by target management to protect its own interests at stockholder expense. Defenders of the practice claim that the contracts give management the security it needs in order to negotiate the best possible price for the target's shares, without regard to management's concerns over its own job security.

The available evidence on the effects of these severance contracts is inconclusive. A study of 90 companies that have adopted such contracts shows a small, statistically insignificant positive effect on stock prices. Moreover, the Deficit Reduction Act of 1984 imposes substantial tax burdens on certain severance contracts. The market has not yet had an opportunity to respond fully to these new tax law provisions, and it is too soon to be able to assess the impact of this legislation on takeover-related severance agreements.

In addition, even if the Congress sought to prohibit severance contracts adopted while a takeover bid is pending, firms could readily avoid that prohibition by entering into the contracts prior to announcement of a tender offer. A recent survey of 560 of the *Fortune* top 1,000 companies showed that about 25 percent already have some form of takeover-related severance agreements with senior management. Indeed, the labor market for senior executives may in some situations require that senior managers be offered takeover-related severance agreements, just as sports stars negotiate "no-cut" and "no-trade" contracts with athletic teams.

Federal regulation of takeover-related severance contracts would thus not have any clear benefits for stockholders or for the economy at large. In addition, such regulations would be difficult to enforce and would constitute a major intrusion into an area that is traditionally subject primarily to State regulation.

REMEDIES OTHER THAN FEDERAL LEGISLATION

In addition to these two examples of frequently criticized defensive tactics, there are many other techniques that managements use in order to fend off takeovers. Each of these techniques can be judged by the same criteria applied to repurchases and severance contracts: If they are approved by stockholders, or if they are reasonably calculated to result in an increased expected premium for stockholders, then they are not abusive. However, because a given defensive tactic can often be used both for the purpose of defeating an offer as well as for the purpose of inducing a higher bid, each controversial application of a defensive technique is best judged on a case-by-case basis by the courts, and not under blanket prohibitions established by Federal regulations. Moreover, stockholders already have available to them many avenues of recourse that may be more effective remedies for management misconduct than Federal legislation.

Stockholder Suffrage

Many experts have long been pessimistic about stockholders' ability to oppose management initiatives. Much of this pessimism is rooted in the view that stockholders, as a group, have interests that are too diffuse to make it reasonable for them to band together to oppose management proposals. Recent developments, however, suggest that this situation is changing and that stockholders potentially have a more powerful voice in corporate governance than previously thought.

According to the SEC, 20 institutional investors in 1978 owned more than 10 percent of the total value of publicly held shares. More recent data show that institutional investors own approximately 36 percent of the voting stock of companies listed on the New York

Stock Exchange. When the holdings of certain trusts and investment funds are added to the total, institutions have the ability to influence or control about 50 percent of the voting power represented by shares traded on the New York Stock Exchange.

A recent study of the distribution of stockholder interests in 511 large corporations also suggests that voting power in larger corporations is not as diffuse as commonly believed. On average, the five largest stockholders in these 511 corporations control about 25 percent of the corporation's shares, and the 20 largest stockholders control about 38 percent of the corporation's shares. Thus, on average, the five largest stockholders in these corporations need to obtain the agreement of stockholders controlling only one-third of the remaining shares in order effectively to control the corporation. A coalition of the 20 largest holders, on average, would need cooperation from stockholders controlling only about one-fifth of the remaining shares in order to control the corporation.

In addition, the SEC has found a trend away from the "Wall Street Rule"—institutional investors' traditional practice of expressing displeasure solely by selling their shares—and a move toward more active participation by institutions in corporate governance. At least two major institutional stockholders have initiated litigation against corporations that have engaged in targeted share repurchases and many institutional stockholders frequently vote against anti-takeover proposals. In at least one instance, institutional investors proved instrumental in requiring that management of a major firm seeking to adopt anti-takeover amendments to the corporate charter abandon these attempts and instead appoint a committee of outside directors to consider takeover proposals. Soon thereafter, the corporation was the object of a takeover that afforded stockholders a handsome premium.

Stockholder self-help therefore has the potential to be a more effective check on management abuse of defensive tactics. A significant benefit of stockholder self-help is that it does not require that the government, either at the Federal or State level, impose restraints on what is essentially a private contractual relationship between a corporation's stockholders and its management. Instead, by relying on self-help mechanisms, each corporation will be able to select the governance structure most suited to its particular circumstances and no single rule will be imposed by law on all companies.

Under such a regime, the capital markets can be relied upon to generate a distribution of governance schemes and associated stock price values. Some companies will have governance rules that make them difficult hostile takeover targets, while others will be relatively easy to purchase with a hostile bid. The stock prices of individual

companies will incorporate the effects of each company's defensive posture. If stockholder suffrage is an effective check on management conduct, this situation is far preferable to a world in which all companies are required to adopt identical takeover defense policies.

Improved Executive Compensation Contracts

The potential for abusive management conduct can also be diminished by implementing incentives that align management interests more closely with stockholders'. As previously noted, managements of publicly traded corporations tend to oppose takeover bids when the takeover is relatively harmful to management's private financial interests. Typically, this occurs when management has a relatively small equity interest in the company. This problem can be reduced by giving management a stronger private incentive to maximize the value of the corporation's shares in takeover contests. Stock options and incentive contracts that pay management a percentage of the premium offered in takeover contracts are two examples of private contract mechanisms that may be able to resolve large parts of the defensive tactics debate.

Recourse to the Courts

Stockholders also have recourse to the courts if they believe management has abused its delegated discretion. In evaluating management's response to a takeover bid, courts typically apply the "business judgment rule." Under that rule, a board of directors historically "enjoys a presumption of sound business judgment, and its decisions will not be disturbed if they can be attributed to any rational business purpose. A court under such circumstances will not substitute its own notions of what is and what is not sound business judgment."

The great latitude afforded to management under the business judgment rule has often made it difficult for shareholders to persuade courts that management has behaved unreasonably in opposing a takeover bid. Recently, however, the Second Circuit Court of Appeals, a particularly authoritative Federal court in matters of corporate governance, has tightened its interpretation of the business judgment rule and has recognized that defensive measures adopted in the course of a takeover battle can involve a measure of management self-interest. The court therefore concluded that, under certain circumstances, defensive tactics adopted in a takeover contest are to be evaluated under a stricter fairness standard that gives substantially less deference to target management judgments. Other courts have also indicated increased sensitivity to problems arising in takeover situations. The state of the law is currently in flux, but it now seems possible that the business judgment rule will, through the natural evolution of

the case law, provide a more powerful deterrent against perceived takeover abuses than it has in the past.

The Economic Value of Federalism

Corporate law has traditionally been the subject of State rather than Federal regulation. For many years, State regulation of corporate governance has been criticized by some commentators as the result of a race to the bottom, in which States compete with each other for the revenues generated by corporate charters. According to this theory, decisions about the legal domicile of a corporation are primarily under management's control, and the States compete with each other by fashioning corporation codes that favor management interests over stockholder rights. The States that adopt laws most favorable to management attract the largest number of corporations and win the race to the bottom. From this perspective, State corporation law fails adequately to protect stockholder rights.

The opposing view is that corporations choose domiciles that maximize the value of the firm's shares. Accordingly, competition among the States gives the States an incentive to adopt policies that are beneficial for stockholders. If this view is correct, competition among the States is to be preferred to Federal regulation of corporate charters that would inhibit experimentation and competition in the design of superior governance techniques.

This debate cannot be resolved on a theoretical level, and it is instead necessary to consider the empirical evidence regarding the stock price effects of changes in corporate domicile. The available evidence suggests that changes in corporate domicile are correlated with increased stock price valuations. This finding is consistent with the competitive model of federalism, not with the race to the bottom, which predicts decreased stock prices as a consequence of changes in domicile that elevate management interests over stockholders'. Accordingly, competition among the States appears to be beneficial, and there is no systematic evidence in support of the theory that competition among the States has harmed stockholders.

Because the evidence is that deference to the States in matters of internal corporate governance is beneficial, there is a sound economic rationale for continued reliance on the principle of federalism in the market for corporate control. Of course, if the nature of competition among the States changes, and States that charter a significant percentage of publicly traded corporations adopt protectionist statutes or interpretations of law that promote managements' ability to abuse delegated discretion, then the limits of federalism as applied to the market for corporate control may have to be reconsidered.

CONCLUSION

The public has a legitimate interest in the continued strength and vitality of the market for corporate control. Publicly traded corporations account for a substantial portion of the Nation's wealth and productive capacity, and it is important that the management of these firms not be insulated from competition in the market for corporate control. The available evidence is that the operation of this market has generated net benefits for the economy. The evidence also suggests that abusive practices in the market for corporate control are limited largely to tactics employed by target managements who, in opposing takeover bids, defeat or deter tender offers at the expense of their stockholders and the economy.

Remedies for these abuses can often be fashioned within the corporation itself. Stockholders also have recourse to the courts which have recently indicated a willingness to subject target management conduct to closer scrutiny. In addition, abusive conduct by corporate management has traditionally been a subject of State regulation; the available evidence indicates that federalism has served stockholders well. Accordingly, further Federal regulation of the market for corporate control would be premature, unnecessary, and unwise.